

It feels more real! Impact of UGC (User-generated content) and FGC (Firm-generated content) on the purchase intention of male and female university students

Student Name: Yeria Bresnia Cerón Mendoza

Student Number: 696153

Supervisor: P.M.A Tenbült, PhD

Master Media Studies - Media & Business

Erasmus School of History, Culture and Communication

Erasmus University Rotterdam

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ABSTRACT

With the rise in popularity of social media platforms, companies have more options to advertise their products. For example, they can hire professionals to create their own content, or they can repost content from their consumers (such as product reviews, unboxings, etc.). These are specific examples of *Firm-generated content* and *User-generated content*, respectively. However, previous research shows that both types of content are influential on the Purchase Intention of consumers. Research also shows that this impact could differ between male and female consumers since men and women have a different purchase behavior and value different things when they buy a certain product. For this reason, the aim of this study is to answer the research question: What is the impact of UGC and FGC on the purchase intention of male and female participants?

It is relevant to answer this question to contribute to the academic literature regarding this subject since the number of FGC studies is relatively small compared to UGC and findings could be relevant for marketing professionals that are interested in learning about the purchasing behavior of men and women.

An experiment was conducted among 191 female and male university students between the ages of 18-25 years old. The findings of the study indicate that male and female participants did not have a significant difference in their level of purchase intention when they were exposed to UGC and FGC. Results could be explained due to the tendency to value physical and social attractiveness in advertisements, the similarities that men and female participants share in terms of their shopping behavior and the critical attitude that consumers nowadays have towards advertisements.

KEYWORDS: *Firm-generated content, User-generated content, Purchase Intention, social media.*

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1 Introduction

With the internet and more precisely, social media platforms, companies can advertise their products or services in original and creative ways. For example, marketing professional can create their own online content in the form of professional pictures and videos, or they can repost the content that their consumers share on their personal social media profiles (such as product reviews, unboxings, along with others). These are specific examples of Firm-generated content (FGC) and User-generated content (UGC), respectively (Colicev et al., 2019, p. 102).

According to Naem and Okafor (2019), User-generated content became popular in the year 2005 and since then, together with social media networks, User-generated content has gained popularity among online users due to the wide variety of digital features that these networks offer to them that facilitate the creation of audiovisual content and distribution of this content with other online users like them (p. 194).

Due to this, the Internet has become a key component of social media marketing (Kim et al., 2021, p. 123), and more companies are advertising their products not only through traditional media channels (such as the television or radio), but also the internet.

1.1 Problem background

Product advertisement has changed radically in the past decades and nowadays, marketing professionals can use the internet and social media networks to advertise their products and services. A clear example to illustrate this is the popularity of User-generated content created by online users, and Firm-generated content created by marketing professionals.

According to Naem and Okafor (2019), User-generated content is shared to other online users through social media networks that are shared platforms open to everyone and that multiple users can have access to, and it comes in different forms such as written media (texts), or audiovisual media (p. 195). In addition to this, online users tend to perceive this genre of content as more efficient and useful since it is not produced by companies or marketing professionals with commercial purposes (Halim & Candraningrum, 2021, pp. 832, 835).

In relation to the impact of User-generated content, in a study conducted by Halim and Candraningrum (2021), they found that User-generated content on social

media, has a positive influence on people's purchase intention. As mentioned previously, this occurs because User-generated content is often perceived positively by online consumers and is perceived as more efficient and useful. One of the reasons behind this positive perception is that User-generated content is often created by regular online users that are not being paid by a company for the publication of their content (pp. 832, 835). For example, Bahtar and Muda (2016) found that online users trust product reviews created by other online users like them because they expect that these reviews will not be biased and will be honest, meaning that both negative and positive aspects from a product will be exposed (p. 338).

Firm-generated content is characterized for being created by media professionals in the advertisement industry. According to Appel et al. (2019), the purpose behind the creation of this type of content by professionals is to create content that consumers can engage with (p. 83). For example, in studies related to Firm-generated content, it was also found that FGC is persuasive and informative for consumers but to a lower degree than User-generated content (Bigne et al., 2024, p. 1). Moreover, in another study conducted by Ma and Gu (2022), they found that User-generated content and Firm-generated content influence certain behaviors such as purchase intention (p. 4). Also, they found that, while User-generated content and Firm-generated content influence purchase intention, the impact of Firm-generated content is not always positive (Santiago et al., 2022, p. 945).

After presenting the problem background and the main characteristics of each genre, it is possible to conclude that the main difference between both genres of content is that Firm-generated content is produced by media professionals while User-generated content is created by online users with the skills to create and edit their own content from their perspective (Ma & Gu, 2022, p. 2). In addition to this, it is important to emphasize that User-generated content has gained a lot of popularity in the media industry and findings from numerous studies support the idea that User-generated content and Firm-generated content influence the purchase intention of consumers. For this reason, it is important to compare the impact of both genres and evaluate if this impact changes if other variables such as the gender of participants are included.

1.2 Research question – Justification

Based on the information presented previously regarding the impact of Firm-generated content and User-generated content on the purchase intention of consumers, it is possible to notice that the type of content to which consumers are exposed can influence their shopping behavior. For this reason, the aim of this study is to test this hypothesis and evaluate whether User-generated content or Firm-generated content have a different impact on the purchase intention of men and female participants.

In addition to this, the variable of gender is being considered because it was found that gender influences online purchase behavior (Hansen and Møller, 2008, p. 1154). For example, Dittmar et al. (2004), suggest that women and men perceive shopping differently. While men perceive shopping as a straightforward experience, women tend to perceive shopping as a more enjoyable experience and value the emotional and psychological aspects of shopping (p. 434). Also, according to Koca & Koc (2016), men and women behave differently and think differently when they make a purchase (p. 234).

Hence, the following research question is proposed:

What is the impact of UGC (User-generated content) and FGC (Firm-generated content) on the purchase intention of male and female participants?

To answer the following research question, an experiment was conducted among 191 female and male participants between the ages of 18-25 years-old that are currently university students and are social media users.

1.3 Academic Relevance

From an academic perspective, it is important to investigate further on the impact of different genres of audiovisual content used for advertising (such as Firm-generated content and User-generated content), for the following reasons:

In first place, it is crucial to encourage research on different genres of advertisements because with the development of technology, new genres of content are emerging such as User-generated content that is published by online users on social media networks such as YouTube, Facebook, among others (Luca, 2015, p. 566). However, in academia, there are certain genres of content that are being studied more

than others. For example, according to Ma and Gu (2022), there is more research about User-generated-content than Firm-generated content (p. 4). In that sense, it is crucial to encourage further investigation about Firm-generated content because FGC is widely used by companies on a daily basis and is important to address this gap in research.

In second place, it is important to investigate about this topic because the advertisement industry is constantly evolving due to the development of technology and easier access that people have to technological devices. Therefore, it is possible that results vary over time or change, losing relevance. The same phenomenon could occur if the genre of content from advertisements varies. For example, Bigne et al. (2024), found that Firm-generated content is less influential and provides less information that can be useful for online users than User-generated content (pp. 1, 11). However, this study was focused on User-generated content aimed at the promotion of tourism destinations. In that sense, results could vary if the content from the advertisements changes (for example, if the content was about clothing brands, beauty products, etc.).

In third place, it is important to encourage academic research on this topic and answer the research question of this study because results could potentially vary or change if other variables such as gender are included. For example, according to Koca and Koc (2016), gender can influence consumers' decisions because men and women value different aspects of a product when they make a purchase and have a different purchase behavior (pp. 234, 246).

1.4 Societal relevance

From a societal perspective, it is important to research this topic because with the development of technology and easier access to technological devices, our contemporary media landscape is constantly changing, and this change is also being reflected on the media industry. A clear example to illustrate this idea, is the rise in popularity of User-generated content and Firm-generated content on digital platforms. According to Kim et al. (2021), these two genres have become key elements of social media marketing (p. 123), and research shows that User generated content has the potential of persuading “potential buyers in making their purchase decision” (Bahtar & Muda, 2016, p. 340). In that sense, investigating this topic could be beneficial for marketing professionals and companies that are interested in developing a social media

marketing strategy and would like to start advertising their products or services online and must choose between using User-generated content or Firm-generated content.

In addition to this, investigating the effectiveness of User generated content and Firm generated content on the purchase intention of male and female participants could be beneficial for companies and marketing professionals interested in reaching a specific target audience (such as female or male university students between the ages of 18 - 25 years old).

Moreover, with the findings from the study, companies and marketing professionals could gain knowledge about the differences and similarities in the purchasing behavior of men and women. Also, considering the variable of gender is crucial because previous research shows that men and women value different things when purchasing a product online and offline (Dittmar et al., 2004, p. 434).

Furthermore, investigating about this topic is relevant from a business perspective because advertisements published on the Internet have a wider reach and international exposure (Terkan, 2014, p. 239), and “UGC advertising has become an important source of revenue and a driving force” (Yawen, 2023, p. 127).

To finalize, since social media networks such as TikTok and Instagram allow users to share their own personalized content and User-generated content has gained popularity since 2005 (Naem & Okafor, 2019, p. 194), findings from this study could be beneficial for Marketing professionals because companies must “adopt creative strategies and innovations in their operations in order to survive the challenges of the ever-expanding global market” (Terkan, 2014, p. 239).

1.5 Chapter outline

The structure of this study will be as follows:

After the introduction, the theoretical framework will be presented. In this section, previous findings and theories that are relevant to this study will be explained. This information is important because it will serve as the basis to understand the problem background and the research question of this study. In addition to this, the different hypotheses of this study and sub-research questions will be presented, and the academic and societal relevance will be explained. After this, in the method section, the methodology of this study will be presented with relevant information such as the

justification of the research method, the sampling method, the operationalization of relevant concepts (such as Purchase Intention), the use of control questions, a description of the stimulus materials and the procedure. In the following section, the results will be analyzed and the main conclusions from this study will be presented. To finalize, the limitations and recommendations for future research will be explained in detail.

2 Theoretical Framework

In this section, the theoretical framework used for this study will be explained in detail. The aim of this section is to provide a detailed review of relevant academic literature, theories and concepts that are necessary to answer the research question of this study and, serve as a basis for the hypotheses of this study.

In the first subsections 2.1 and 2.2, the following questions will be answered: “How are social media networks used for advertising?” And “How do university students use social media networks?”. The purpose of answering these questions is to contextualize how university use social media nowadays, and how the advertisement industry has changed with social media networks. After this, in the subsections 2.3 and 2.4, the concept of “Purchase Intention” will be operationalized based on academic literature and the main characteristics of User-generated content and Firm-generated content will be explained in detail. In subsections 2.5, 2.6, 2.7 and 2.8, the following questions will be answered: “What is the relation between User-generated content (UGC) and purchase intention?”, “What is the relation between Firm-generated content (FGC) and purchase intention?”, “What is the relation between genre of content and purchase intention?” And what is the relationship between gender and purchase intention?”. The purpose of answering these questions is to illustrate the relationship between the variables from the research question and explain the reasoning behind the hypotheses proposed in this study.

2.1 How are social media networks used for advertising?

According to Naem and Okafor (2019), with the rise in popularity of social media networks, nowadays online users have the possibility of accessing a wider variety of digital content that can be created by marketing professionals or other online users like them and an example of this is User-generated content, which after gaining popularity in 2005, it has become an essential element of social media marketing for companies and marketing professionals (p. 194).

Social media networks have revolutionized how products and services are advertised and nowadays, companies have more options available to advertise their products or services through traditional media channels (TV, radio and newspapers), or through social media networks (Fotopoulos, 2023, p. 277). For example, some of the benefits of using new forms of advertisements such as User-generated media are that

companies can “repost” the content created by consumers and publish it on their different social media channels, saving money and improving their social media presence because, User-generated content is often associated with authenticity. Even in certain scenarios, “UGC can bring revenue for its creators through voluntary donations, direct payments, content licensed to third parties and advertising revenues” (Naem & Okafor, 2019, p. 194).

As it is possible to notice, social media networks have changed the way that people receive information, express themselves and interact with others. Also, they have revolutionized the advertising industry. For these reasons, User-generated content (UGC) and Firm-generated content (FGC) have become key elements of social media marketing (Kim et al., 2021, p. 123).

2.2 How do university students use social media networks?

As mentioned by Bhadra and Kumar (2023), social media has become part of the youth’s identity and existence (para. 1). This occurs because social media networks allow people to do a wide range of activities through the Internet such as access information tailored to their interest, make purchases from the comfort of their own homes and form or maintain social relationships. Due to this, social media networks have become a useful tool for the advertisement of products and services, and companies can highly benefit from this. Some examples of this are Firm-generated content and User-generated content. From one side with Firm generated content, companies can hire marketing professionals to produce content for marketing goals (Ma & Gu, 2022, p. 2) and benefit from paid advertisements. For example, on Instagram paid advertisements are “displayed in a linear format, labeled as a sponsored ad within the user’s personal Instagram feed” (Ford et al., 2019, p. 3). Also, according to Meta (2022), Instagram is an effective tool for businesses to advertise their products and services because they found that 90% of their online users follows at least one business (para. 1).

On the other side, although User-generated content is created by non-professional users, companies can still benefit from this genre of content by reposting social media posts created by their consumers using the products from the company on different social media channels.

For this study, considering the popularity of Instagram among young adults, the

desired population involved university students between the ages of 18 - 25 years old. The platform of Instagram was chosen because according to Jo Dixon (2024), almost 32% of the global audience of Instagram is between the ages of 18 - 24 (Distribution of global audiences 2024 section). Also, according to Karayigit and Parlade (2023), Instagram is a social media network that is widely used and popular among college students (p. 329).

2.3 What is UGC (User-generated content) and FGC (Firm-generated content)?

According to Zhuang et al. (2023), User-generated content refers to all the forms of audiovisual content such as audio, video, and picture (p. 2), and some of the most common examples of User-generated content on social media are product reviews (Garlin, 2023, para. 1). Also, this genre of content is characteristic for being perceived as more efficient and useful because it is not produced by marketing professionals (Halim & Candraningrum, 2021, pp. 832, 835).

On the contrary, FGC (Firm-generated content) can be referred as "firm-initiated marketing" (Kumar et al., 2016, p. 7) that is published on the different media channels of a company such as social media networks. This genre of content is characteristic for being created by media professionals for marketing objectives (Ma & Gu, 2022, p. 2). Some examples of Firm-generated content include "many forms of communication that are available in social media, such as review, blogs, videos, photos, and Q&A sessions" (Negoro & Alif, 2020, p.16).

Overall, according to these authors, one of the main differences between these two types of content is that Firm-generated content is produced by marketing professionals that are hired to produce their own digital content for marketing purposes and User-generated content is produced by online users with the skills to create and edit their own content from their own perspective (Ma & Gu, 2022, p. 2).

2.4 What is Purchase Intention?

In the process of purchasing a product, identifying, and recognizing the key factors that lead consumers to purchase a certain product can help businesses grow and save money in revenue. However, nowadays measuring Purchase Intention is more complex and companies can use a wider set of tools such as social media networks to measure this construct (Hall, 2018, Introduction section).

From an academic perspective, purchase intention can be defined as “a situation when a customer is willing and intends to engage in online transactions” (Takaya, 2016, p. 5). Another definition is proposed by Baodeng and Binqiang (2023), for them, purchase intention is an emotional decision that is taken before purchasing a product and is based on the willingness of the consumer to purchase a specific product (p. 3). Moreover, for Wu et al. (2011), purchase intention is defined as an action that occurs in the future and is based on the willingness of a consumer to purchase a specific product or service (p. 32).

Overall, it is possible to notice that from all the definitions mentioned before, one similarity that all these definitions share is that Purchase intention is defined as an action that occurs in the future and is based on the willingness of a consumer to choose a certain product above others and their intention to purchase it.

However, for the context of this study, the definition that will be used is the one proposed by Wu et al. (2011, p. 32), and it will be measured based on the adapted scale proposed by Schivinski and Dabrowski (2014, p. 212). This scale is based on a few factors such as the preference of a consumer towards a certain product, the willingness of the consumer to purchase the product in the future and the likeliness that the consumer will recommend that specific product to other potential buyers.

2.5 What is the relation between User-generated content and purchase intention?

Nowadays, companies “can invite users to submit content by launching giveaways, contests or campaigns with branded hashtags that encourage participation” (Duke, 2023, section How do brands acquire and use UGC?, para. 9). However, once this content is published, how can it influence the purchase intention of consumers? What is the relation between User-generated content and purchase Intention?

According to Bahtar and Muda (2016), User-generated content (such as product reviews) influences the purchase intention of online consumers, and this occurs because online reviews illustrate the positive and negative aspects of owning a specific product from the perspective of consumers (p. 338). Also, since these reviews are created by online users that are also consumers and not marketing professionals, users expect that

these reviews will be transparent, meaning that both positive and negative aspects of the product will be equally shared.

In another study conducted by Liaw et al. (2022, Abstract section), it was found that User-generated content significantly affects brand awareness and perceived quality, and these two variables also impact purchase intention positively. A similar result was found in a study conducted by Halim and Candraningrum (2021) in Indonesia about User-generated content, in which they found that User-generated content published on social media has a positive influence on purchase intention (pp. 831, 835). However, it is important to consider that there is the possibility that this impact could also be negative in a different setting.

2.6 What is the relation between FGC (Firm-generated content) and purchase intention?

According to Ma and Gu (2022), Firm-generated content is an effective tool to influence many aspects of consumer behavior such as purchase intention (p. 1). This occurs because Firm-generated content is created by marketing professionals that understand the values and DNA of a company. Moreover, in another study conducted by Zhang et al. (2021) to more than 400 participants, it was also found that Firm-generated content significantly influenced the purchase intention of participants, especially when the Firm-generated advertisements used in the study had an emotional appeal (p. 912).

As it is possible to see, Firm-generated advertising can be an effective tool to attract potential new customers than other forms of advertisement in certain scenarios, and this occurs because FGC " helps to improve the perceived quality and brand attitude" (Zhang et al., 2021, p. 922). In simpler words, if a Firm-generated advertisement is well-made in terms of its quality and content, it is more likely that the viewers of the advertisement will also associate the high quality of the advertisement with the product that is being advertised and be more likely to purchase the product in the future.

2.7 What is the relation between genre of content and purchase intention?

When companies decide to introduce a product in the market, advertising plays a crucial role in introducing the product to potential new customers. For example,

advertising can “create an awareness of consumers, it gives an information and also it can persuade consumers” (Terkan, 2014, p. 240). For this reason, marketing professionals must evaluate carefully how they advertise a new product or service and choose an advertising strategy based on the target audience that they would like to reach.

To reach a younger audience, it is crucial to use social media networks to encourage online users to purchase new products. This occurs because “most of the people use social media on smart phones, tablets and laptops, thus, advertising on these platforms can enhance customers’ purchase intention” (Ahmad & Rehman, 2020, p. 85). For example, “companies that engage with consumers through online social networking sites have a better chance of having an effect on their purchase decisions” (Qader et al., 2022, p.11).

In addition to choosing the right advertising channel (traditional media or digital media), it is important to choose the right genre of content (such as FGC or UGC). To achieve this, marketing professionals must be aware of the content that their target audience consumes and the social platforms that they prefer to produce relevant content that their consumers can engage with (Expert Panel, 2021, section Go Social, para. 7).

It is important to choose the right genre of content to advertise a certain product because depending on this selection, purchase intention from consumers could increase. For example, since young adults use social media and smart devices on a daily basis, advertising on social media is a highly effective strategy to enhance their purchase intention (Ahmad & Rehman, 2020, p. 86). This is because “features of online advertising do generate a significant influence on attitude toward the brand as well as purchase intention” (Khong et al., 2010, p. 130), and young adults enjoy dynamic advertisements that are similar to the content that they consume daily.

Bearing in mind these ideas, choosing between UGC and FGC represents a crucial step in the process of advertising a product and marketing professionals must decide, based on the target audience that they would like to reach. For example, in a recent study addressed to young adults between the ages of 18 to 24 years old, it was found that short-form videos such as TikToks had a positive impact on the purchase intention of participants (Araujo et al., 2022, p. 140). Also, Russell (2022), found that trends such as #TikTokMadeBuyIt are real-life examples of how UGC (such as product

reviews) positively influence consumers' purchase intention and represent a highly effective advertising strategy.

To summarize, based on the information provided before, it is possible to notice the importance of choosing the right genre of content for online advertisement and the strong relationship between genre of content and purchase intention. In addition to this, it is possible to highlight that for a younger audience, dynamic content such as UGC is an effective tool to influence the purchase intention of young adults. For these reasons, the following hypotheses are proposed for this study:

H1 (Main effect - Type of content): The genre of content has an influence on purchase intention.

H1a: User-generated content (UGC) has a higher effect than Firm-generated content (FGC) on Purchase intention.

2.8 What is the relationship between gender and purchase intention?

According to an article by Hansen and Møller (2008), gender has an influence on online purchase behavior (p. 1154). For example, in their study they found that men in comparison to women prefer quick shopping experiences and these differences were higher when the participants had to purchase clothes for themselves than for their partners. In another study conducted by Dittmar et al. (2004), it was found that purchase behavior could vary between female and male consumers because women tend to value more the emotional and psychological aspect of a shopping experience, while men value more the efficiency and convenience of the products that they are purchasing (p. 434). In that sense, since it "It has been suggested that male and female consumers demonstrate considerably different approaches in their decision-making and purchasing behavior" (Koca & Koc, 2016, p. 234), and that woman are more likely to engage in impulsive purchases (Tifferet & Herstein, 2012, p. 176), the following hypotheses are proposed:

H2 (Main effect - Gender): Gender has an effect on Purchase intention.

H2a: Female participants have a higher purchase intention than male participants.

On one hand, for the last hypothesis of this study (H3), it is expected that women will have a higher purchase intention than men and will be more open to try new products that are advertised on social media (for the User-generated condition and Firm-generated condition). This is expected because The Louisiana Federal Credit Union reported that women spend more money than men in certain categories such as clothing and healthcare (LFCU, 2024, Spending habits section). Also, it was found that women “place more trust in unknown brands than men” (Karpinska-Krakowiak, 2021, p. 1), and women are more like to spend more time shopping, while men see shopping as a straightforward experience in which finding the right tool becomes a mission (Wharton School of the University of Pennsylvania, 2007, para. 1).

On the other hand, it is also expected that the effect of User-generated content on purchase intention, compared to Firm-generated content, will be greater for the female participants than for the male participants. This is expected because, as mentioned previously, men and women follow different approaches when they purchase a product and women perceive shopping as an enjoyable experience and are more likely to try new products than men.

In addition to this, H3 is proposed because it is expected that women will have a higher purchase intention than men because women are more impulsive buyers and sensory cues are more appealing to them (Tifferet & Herstein, 2012, p. 176). In that sense, since women value more the emotional and psychological aspect of the shopping experience (Dittmar et al., 2004, p. 434), it is expected that the effect of User-generated content on the purchase intention of the female population will be stronger compared to the male population because User-generated content is characteristic for being perceived as more “valuable and useful” (Halim & Candraningrum, 2021, p. 835), than Firm-generated content and trends such as #TikTokMadeBuyIt are real-life examples of how UGC can positively influence consumers’ purchase intention (Russell, 2022, Introduction section, para.1).

H3 (Interaction effect): The effect of User-generated content (UGC) on Purchase Intention, compared to Firm-generated content (FGC), is greater when it concerns women compared to male participants.

3 Methodology

In this section, the methodology used for the study will be explained in detail. First, the justification of the research method will be presented. Second, the sampling size required for this research and sampled method used to collect responses will be presented. Third, the concept of Purchase Intention will be operationalized, and the control questions used in this study will be explained in detail. After this, in the following sub-sections, the demographics of the participants included in the study will be explained as well as the stimulus materials used for the Firm-generated and User-generated conditions and the procedure of the experiment. To finalize, in the last subsection, the analysis of the experiment will be presented.

3.1. Justification of the research method

Since the main objective of this study is to measure the influence of User-generated content and Firm-generated content on the purchase intention of men and women, the research method selected was experimental research because with an experiment it is possible to “provide focused tests of hypotheses with each experiment considering one or two variables in a specific setting” (Neuman, 2014, p. 283). This means that, with an experiment it is possible to test different variables under different conditions. In the context of this study, the type of content to which participants are exposed is the variable that was isolated to evaluate the impact of UGC and FGC on the purchase intention of female and male participants.

In relation to the design of the experiment, a between-subjects design model was used because with this model, “as long as group assignment is random, causal estimates are obtained by comparing the behavior of those in one experimental condition with the behavior of those in another” (Charness et al., 2012, p. 1). In that sense, using this model for this study is effective to compare different groups of people (such as male and female university students), when they are exposed to different conditions (such as genre of content).

However, it is important to emphasize that the videos used for the different conditions were about the same product (“The Pistachio Latte”) and from the same company (Starbucks Coffee Company). Also, to ensure “equal probabilities of

assignment” (Alferes, 2012, p. 8), participants were assigned randomly to a specific condition but had to answer the same set of questions after watching the video.

A within-subjects design was not selected because one of the main disadvantages of this design is the appearance of a Demand effect among participants. Which occurs when participants from a study anticipate the nature of an experiment and start to change their answers or behavior to match the expectations of the researcher (Charness et al., 2012, p. 2). In that sense, if a within-subjects design was chosen, there was a high risk of a possible Demand effect, because after watching both videos and being exposed to both conditions, participants could have anticipated the topic of this research and changed their answers.

3.2 Sample size and sampling method

Considering the Methodological Guidelines from the Erasmus School of History, Culture and Communication, it was necessary for this experiment to collect at least 120 participants since the experiment required four groups of people with a minimum of 30 participants per group to qualify for a Master Thesis (Janssen & Verboord, 2024, p.13). The sampling method used for the selection of participants was Purposive sampling. This method is characteristic for being “appropriate to select unique cases” (Neuman, 2014, p. 274), and for this experiment it is an effective method because the intended population involved men and women between the ages of 18 - 25, that are university students and that are exposed to User-generated content and Firm-generated content on social media networks.

The survey was published across different Facebook and What’s App groups addressed to university students. After the data collection period of two weeks, in total 394 responses were collected. However, for this study only 191 were considered as valid. This is because answers were excluded from this study if the participants failed to meet the defined criteria: Were not university students, did not fall in the age range, did not complete the survey correctly or were not familiar with the coffee company Starbucks, to ensure quality of answers.

3.3 Purchase Intention - Operationalization

To measure the effect of type of content on purchase intention, it is important to operationalize this term and present the scale that was used to measure this variable.

As mentioned before, purchase intention was defined as the extent to which a consumer expects or plans to purchase a product from an advertisement in the future (Wu et al., 2011, p. 32). For this experiment, this construct was measured using the adapted scale proposed by Schivinski and Dabrowski (2014, p. 212). This is a 5-point Likert Scale that has the following options: "Completely disagree", "Mostly disagree", "Generally", "Basically agree" and "Completely agree". Also, the statements of this scale to which participants had to react were the following: "I would buy this product/brand rather than any other brands available", "I am willing to recommend that others buy this product/ brand" and "I intend to purchase this product/brand in the future".

3.4 Control questions

According to Kung et al. (2018), in survey design control questions are highly used by researchers to screen out participants that are not paying attention to the instructions of a questionnaire, ensure quality data and do not compromise the validity of the study (pp. 264, 275). In addition to this, control questions are important to ensure the reliability of a study. This means that the responses collected during the study are reliable and that the study can be replicated in the future (Leung, 2015, p. 2). In this study, participants had to answer three questions measured with a 5-point Likert Scale. The questions were the following: "I watched the video until the end", "I paid close attention to the video" and "I had the product/brand presented in the video in mind while answering the questions". If the participants answered "disagree" or "somewhat disagree" for any of these questions, their answers were excluded from the study.

Moreover, to not compromise the internal validity of the findings, participants were not aware about the randomization process of the video stimuli, meaning that they did not know if they were assigned to a Firm-generated or User-generated video. The only information that they were given, was about the origin of the video at the beginning of the questionnaire (the name of the account that published the video and platform in which the video was published).

Furthermore, they were asked about their personal details such as gender, age, occupation, and knowledge about the coffee brand Starbucks. This was a crucial step because the target population of this research was university students between the ages of 18 – 25 that were familiar with the brand Starbucks. Therefore, if participants were

not university students, were older than 25 years old or did not meet the criteria mentioned previously, their answers were later excluded from the study.

3.5 Demographics from participants

As mentioned before, only 191 answers were considered as valid because participants had to satisfy the desired criteria. For this, they were asked in the questionnaire the following questions: “Are you familiar with the coffee brand Starbucks?”, “How old are you?”, “Are you a university student?” and “What is your gender?”

Also, to avoid any type of “Demand effect” (Charness et al., 2012, p. 02). These questions were asked after watching the video and answering the questions selected to measure purchase intention.

It is crucial to highlight that this specific population was selected because university students use technology daily and Instagram is a popular platform among young adults. For example, Jo Dixon (2024) found that 32% of the global audience of Instagram is between the ages of 18 – 24 (Distribution of global audiences 2024 section). In addition to this, it was found that Instagram is a social media network that is widely used and popular among college students (Karayigit and Parlade, 2023, p. 329).

3.6 Stimulus material

The videos used for the conditions of Firm-generated content and User-generated content were the same for male and female participants. This means that male and female participants under the condition of Firm-generated content were exposed to the same video, and the same occurred for male and female participants exposed to the user-generated video. Further information about the videos used in the experiment can be found on Appendix A2.

The stimulus materials for the conditions of User-generated content and Firm-generated content were from the American company Starbucks Coffee. This company was chosen because, according to the Statista Research Department (2023), Starbucks is a company that is globally known and has a strong presence in Europe with more than 2794 stores in different countries (European countries with the most Starbucks stores section). Moreover, according to Srikanth (2023), in the year 2023, 48,4% of their

customers around the world of this company were males and 51,6% were females (Demographic section). Due to this, it was expected that men and female participants were familiar with the coffee brand to a certain extent.

3.6.1 Stimulus material – UGC condition

The product that was advertised on the videos was the same for both conditions (User-generated content and Firm-generated content). The name of the product in both videos was a coffee drink called “The Pistachio Latte”. More precisely, in the User-generated condition the video was a product review created by an online user, and it is important to highlight that the customer on the video was not a celebrity and was not a direct partner or influencer of the company because on Instagram, partnerships are usually mentioned in the description of the post.

This video was first published by this user on her personal TikTok account. Later, her video was reposted by the official Instagram account of Starbucks. On this video, the female customer tries the drink in front of the camera for the first time and shares her first impression about it. For example, some of her comments are about the texture and flavor of the drink. Also, all her comments are positive and at the end, she encourages viewers of her video to also try the drink.

A TikTok that was also posted on Instagram, was selected for this condition of the experiment for the following reasons. First, because “social media use is a common element in students’ lives” (Dumford et al., 2023, p. 7). Second, because both platforms allow the creation of short format videos that can be reposted in both platforms (as Reels or TikToks) by companies to save time (Giovanetti, 2022, Why you should consider resharing videos Section). Third, because TikTok and Instagram are part of the most relevant marketing channels in our contemporary media landscape that are mobile advertising and outdoor advertising (Haenlein et al., 2020, p. 6).

3.6.2 Stimulus material – FGC condition

For the Firm-generated condition, the video selected was a short video advertisement from the same coffee drink (“The Pistachio Latte”). This short video was published by the marketing team of Starbucks on the official Instagram account of the company, and it was selected because the focus of the video is the coffee

drink, and there are not any other outstanding elements in the background that could potentially distract participants. More in detail, some characteristics of the video are that it lasts less than 5 seconds and there is no background sound, music, or voiceover.

In relation to the content, it is possible to notice a hand (of possibly a woman) holding the coffee drink and putting it on top of the table. However, it is not possible to see the face of the person putting the drink and the video does not provide additional information about this person. After this, the coffee drink disappears and instead of the drink, Pistachio nuts are shown on the table moving in different directions which could represent a hint of the main ingredients of this special drink: Coffee and Pistachios. In addition to this, some of the objects that are more salient than others in the video are the Coffee cup with the Starbucks logo and the Pistachio nuts which symbolize the new flavor of the drink and the brand.

This Instagram post was selected because the video is straightforward, easy to understand and visually appealing, which is a common characteristic of Firm-generated content. For this genre of content, the incorporation of audiovisual content that is visually attractive and appealing is crucial to increase message retention and impact (Buckley, 2023, Elaboration Likelihood Model and Source Credibility Section).

3.7 Procedure of the experiment

The experiment was created on the platform Qualtrics XM and the experiment was conducted online because this allows participants to “feel increased comfort and autonomy” (McInroy, 2016, p.86) since participants can complete the survey in the location and time that they prefer. The video was published for a total period of 3 weeks on two platforms: Facebook and What’s app. The participants were recruited using social media because “the use of social media is a cost-effective and efficient strategy for recruiting research participants” (Darko et al., 2022, p.1). More precisely, the platforms of Facebook and What’s App were selected because they are highly used by college students together with other apps such as Instagram and Tik Tok (Dumford et al., 2023, p.1). In relation to What’s App, this platform was selected because What’s App is an instant message services that is often used by people from different ages (such as young adults, teenagers, and senior citizens) for communication purposes since this

app is useful for sending pictures, videos, texts, and digital files (Collins, 2023, Introduction section). For example, some of the Facebook and What's app groups that are targeted to university students and were selected for this study were the following: "Students in Rotterdam, The Netherlands", "Study in Netherlands", "International Students Rotterdam" "New students Groningen" "Utrecht Internationals", "Groningen – New Students 2024", among others.

At the beginning of the questionnaire, participants were informed about their confidentiality of data and voluntary participation. After this, they were offered a contact email in the scenario that they had a personal question, comment, or concern about the study. To start the survey, it was mandatory that participants gave their consent and agreed to the terms of the study. In the scenario that they did not agree with the terms and decided to not give their consent, their answers were excluded, and participants were redirected to the end of the survey.

After agreeing to participate in the experiment and answer the questionnaire, participants were randomly directed to one of the video conditions with an example of a User-generated video or Firm-generated video. The videos selected as examples of User-generated content and Firm-generated content were the same for female and male participants and the idea behind randomly assigning participants to a genre of video was to ensure "equal probabilities of assignment, which means that each experimental unit has an equal probability of being assigned to each of the treatment levels included in the design" (Alferes, 2012, p. 8)

Right after watching the video, male and female participants from both conditions had to answer the same questions designed to measure their purchase intention and their level of attention while watching the video. After this, the last questions that participants had to answer were the following: "How old are you?", "Are you a university student?", "Are you familiar with the coffee brand Starbucks?" and "Do you think that the video that you watched previously was created by marketing professionals or non-professional online users?". These questions were relevant because, if the participants were not university students, were younger than 18 years-old or older than 25 years-old, or were not familiar with the company Starbucks, their answers were later excluded from the study because they were not part of the desired population.

To finalize, in the last section of the survey participants were acknowledged for their participation and were informed about the subject of the study and the experimental conditions of the experiment (information about how participants were assigned randomly to different videos). However, it is important to highlight that participants were informed about the subject of the study after finishing the questionnaire and not at the beginning of the questionnaire to avoid any potential personal bias or "Demand effect" (Charness et al., 2012, p. 02), which occurs when participants anticipate the topic of the study and change their answers to meet the expectations of the researcher.

3.8 Analysis

After the experiment data was collected, the data was downloaded from the platform Qualtrics XM to Microsoft Excel to process the data and delete the answers from participants that were not part of the desired population required for this study. After this, the dataset was exported to the software IBM SPSS Statistics (Version 28).

An ANOVA test was used because this is an effective tool to compare how different factors (multiple independent variables) such as the type of content and gender affect the dependent variable (Purchase intention) (Herzog et al., 2019, p. 5). More precisely, a two-way ANOVA was used to analyze the data because with this test is possible to identify main effects and interactions between a dependent variable and multiple independent variables (Aldrich, 2023, p. 2).

4. Results

This section will have 6 subsections. In the first sections 4.1 and 4.2, the descriptive results from the final sample and the results from the control questions will be presented. After this, in section 4.3, the distribution of the sample across the experimental conditions will be presented. In section 4.4, 4.5 and 4.6 the Reliability test and the results from the test of assumptions and the Two-Way ANOVA will be explained in detail.

4.1 Descriptive Results

From a total of $N = 394$ answers collected, only $N = 191$ were considered in the final sample because they met the criteria mentioned previously regarding age, occupation, knowledge of the coffee company Starbucks and level attention while watching the video. From this total, 125 participants were female (65,4%) and 66 participants were male (34,6%). On average, the age of the participants was 21 years old ($SD = 2,16$). Also, the minimum age registered for male and female participants was 18 years old and the maximum was 25 years old. Moreover, from this sample it is important to emphasize that all the participants were university students and were familiar with the coffee company Starbucks.

4.2 Control questions

As mentioned previously, control questions were included in the questionnaire. The purpose of including these questions is to ensure that participants were paying attention to the instructions, ensure quality of responses (Kung et al., 2018, pp. 265, 275), and do not compromise the validity and reliability of the findings.

More precisely, the control questions were “designed to check on whether participants are actually reading the questions or just skipping to the answer choices” (Hauser et al., 2018, p. 2). For example, some of the statements that participants had to react to with a 5-point Likert Scale were the “I watched the video until the end”, “I paid close attention to the video”, etc. If the answers from the participants to any of the three statements were “disagree” and “somewhat disagree”, their answers were later excluded from the study and only results answered with the options “neutral”, “somewhat agree” and “agree” were included. As a result, in total 203 were excluded from the study and the final sample counted with only $N = 191$ answers.

4.3 Distribution of participants across experimental conditions

The purpose of this section is to explain how the sample was distributed across experimental conditions.

As mentioned before, to ensure objectivity of the study, the participants were not aware about the genre of video that they were watching and did not know that they were randomly assigned to an experimental condition with the use of the Randomizer feature from Qualtrics XM. Random assignment was used in this study because if respondents are randomly assigned to an experimental condition, the study will have a higher internal validity and it will be possible to determine causality (Lavrakas et al., 2019, p. 3).

Moreover, as mentioned by Lavrakas et al. (2019), with this type of distribution it is possible to control other factors except for the independent variables that a researcher is manipulating on purpose for the study (p. 7).

To illustrate how respondents were randomly assigned, a crosstab (Table 1) with the independent variables “genre of video” and “sex” is presented.

Table 4.3.1

Distribution of participants across experimental conditions

		Genre of Video		
		User-generated content	Firm-generated content	Total
Gender	Female	61	64	125(65,4 %) ^a
	Male	33	33	66 (34,6%) ^b
Total		94	97	191 (100%) ^c

Note.

^a Percentage of female participants exposed to UGC and FGC.

^b Percentage of male participants exposed to UGC and FGC.

^c Total number of participants in the experiment.

Table 4.3.1 reveals that in terms of participants' gender, 65,4% (^a) are female, and only 34,6% (^b) are male. Also, from a total of 191 (^c), responses 33 male

participants were exposed to the User-generated video stimuli and 33 were exposed to the Firm-generated video. In relation to the female participants, 61 were exposed the User-generated video and 64 to the Firm-generated video.

4.4 Reliability test

The purpose of a reliability test is to measure “the extent to which all the items in a test measure the same concept or construct” (Tavakol & Dennick, 2011, p. 53). This is based on a value called Cronbach’s Alpha which is an indicator of the “internal consistency” (Sarstedt & Mooi, 2019, p.38) of a scale. According to Hair et al. (2011), when the Cronbach’s Alpha is 0.60 then it is possible to say that a scale lacks reliability. For this reason, a value of minimum 0.70 or higher is desired (p. 145).

In that sense, it is possible to conclude that the adapted scale proposed by Schivinski and Dabrowski (2014, p. 212), to measure the construct “Purchase Intention” is an adequate scale to measure this construct because it has a high degree of internal reliability and consistency (Cronbach’s $\alpha = .87$).

4.5 Two-Way ANOVA Assumptions

The first step before starting with the analysis of a Two-Way ANOVA, is to identify if there were any assumptions that were violated. According to Wall (2022), the first assumption is that the dependent variable is continuous (p. 585). Purchase intention can be considered as a continuous variable because it was measured using a 5-point Likert Scale with 3 items and, according to Shreffler and Huecker (2023), a variable measured with a Likert-Scale can be treated as continuous (Issues of concern section).

The second assumption is regarding homogeneity of variance, a Levene’s test was conducted to find if this assumption was violated. Results were not significant $F(3, 187) = 1,33, p = .267$, meaning that variances among groups are equal (Erjavec, 2011, p. 1595).

The third assumption is independence. Independence occurs when “the data in one group are not influenced by the data in another group and that the data in each group was gathered using random sampling” (Wall, 2022, p. 585). Although answers from participants under a specific condition were independent and not influenced by the answers from participants exposed to a different condition, this assumption was violated

because the participants were selected using Purposive Sampling. This means that participants were not randomly chosen and were selected to participate in the study for being part of a desired population and sharing similar characteristics such as age range (18-25 years old), occupation (university students) and familiarity with the coffee company Starbucks.

The fourth assumption is Normality. Normality involves “that the data for each group is drawn from a normally distributed population” (Wall, 2022, p. 585). According to Mishra et al. (2019), for samples larger than 50 ($n \geq 50$), a Kolmogorov–Smirnov test must be used (p. 4). For the variable Genre of content ($D=0.176$, $p= < .001$, $D=0.152$, $p= < .001$), the data was not normally distributed ($p \leq 0.05$). For the variable Gender ($D=0.169$, $p= < .001$, $D=0.141$, $p= .002$) the data was not normally distributed ($p \leq 0.05$). Hence, this assumption is violated.

To summarize, the assumptions that were violated are Normality and Independence. According to Shatz (2023), some of the risks associated with the violation of these assumptions are biased estimates, false negatives and false positives that could compromise the validity of the study (p. 826). However, the author also states that violations of these assumptions are not always critical, meaning that is possible to conduct a Two-Way ANOVA, but it is important to be aware of the limitations, or evaluate the possibility of considering alternatives solutions, such as the use of a different statistical test or mathematical transformations (Wall, 2022, p. 586).

4.6 Two-Way ANOVA results

A Two-Way ANOVA was performed to measure the effect of “Genre of Video” (Independent Variable 1) and “Gender” (Independent Variable 2) on the “Purchase Intention” (Dependent Variable) of respondents.

Table 4.6.1

Descriptive Statistics for Purchase Intention (Mean Scores and Standard Deviation)

Gender	Genre of video	$M^{(a)}$	$SD^{(b)}$	$N^{(c)}$
Female	User-generated content (UGC)	3,13	1,17	61
	Firm-generated content (FGC)	3,46	1,02	64

Male	User-generated content (UGC)	3,35	0,87	33
	Firm-generated content (FGC)	3,44	1,05	33

Note.

^a Mean score.

^b Standard deviations.

^c Total number of participants per condition.

Table 4.6.1 shows the mean scores (^a) and standard deviations (^b) for Purchase Intention in each experimental condition (^c).

Table 4.6.2

Results of the Two-way analysis of variance ($N=191$)

	Sum of Squares	<i>df</i>	Mean Square	<i>F</i>	<i>p</i> *	η^2
Sex	0,47	1	0,47	0,43	0,515	0,00
Gender of video	1.99	1	1.99	1.79	0,182	0,01
Sex * Gender of video	0,66	1	0,66	0,60	0,442	0,00
Error	206,98	187				
Total	2333,33	191				

Note. Significance level: * $p < .05$

Table 4.6.2 illustrates the results of the Two-way analysis of variance. Results indicated a no significant main effect for Genre of Video, $F(1, 187) = 1.79, p = .182$, partial $\eta^2 = .01$; no significant main effect for gender, $F(1, 187) = 0.43, p = .515$, partial $\eta^2 = < .01$; and a no significant interaction between Genre of video and gender, $F(1, 187) = 0.60, p = .442$, partial $\eta^2 = < .01$. Further detailed information about the results of the analysis can be found on Appendix A3.

5. Discussion

On this section, the findings of the study will be discussed in three subsections. These sub-sections are divided per hypothesis. After this, the main conclusions from this study and answer to the research question will be presented. To finalize, for consideration in future studies, the limitations and recommendations from this study will be explained in detail.

5.1 Discussion: H1: The genre of content has an influence on purchase intention, and H1a: User-generated content (UGC) has a higher effect than Firm-generated content (FGC) on Purchase intention.

Since its appearance in 2005, User-generated content has gained more relevance as a digital method for the advertisement of products (Naem & Okafor, 2019, p. 194). As mentioned previously, some of the factors that led to the rise in popularity of this genre of content, include the perceived authenticity and reliability that people have about this genre because most of the people that create this content are often regular online users and not marketing professionals that are being hired by a specific company for commercial purposes. For this reason, it is expected that UGC reviews will be less biased and more realistic.

However, based on the results of this study, it was found that there is no significant main effect from the genre of video on the purchase intention of participants, meaning that H1 and consequently, H1a are rejected.

Despite the benefits that User-generated content has, there could be several reasons behind the results mentioned previously. One of the reasons that could explain why User-generated content did not have a higher effect than Firm-generated content on the purchase intention of participants, could be related to the lack of certain elements that Firm-generated content has in comparison to User-generated content. For example, in a study conducted by Peng (2023), they found that people value certain characteristics from a person in an advertisement such as physical attractiveness and social attractiveness (pp. 744, 751). Although this study was focused on influencers, a similar logic could be applied to the results from this study because Firm-generated advertisements often feature models or celebrities used “to exert psychological impacts

on the message receiver in the hope of increasing advertisement's effectiveness” (Nguyen, 2013, p. 20).

In second place, another reason that could explain why User-generated content did not have a stronger effect than Firm-generated content on the purchase intention of participants, is the lack of information about the person that appears on the video promoting a product. For example, according to Kwiatek et al. (2021), when influencers promote a product, online users are more like to accept and trust the recommendations from the influencer if this person also has an area of expertise and respect from other users (pp. 181-182).

In third place, another reason that could explain why User-generated was not as influential, is that young adults are more critical about the advertisements that they are exposed to (Stewart, 2022, Introduction section), and are aware about how User-generated content can be used by companies to improve their social media presence. For example, even though User-generated content is created freely and voluntarily by online consumers, marketing professionals can still meticulously select and “repost” the content that is convenient for them and portrays a positive review. Also, companies “can invite users to submit content by launching giveaways, contests or campaigns with branded hashtags that encourage participation” (Duke, 2023, section How do brand acquire and use UGC?, para. 9).

In that sense, since participants were explained explicitly at the beginning of the survey that they were going to watch a video that was published on the Official Instagram Account of Starbucks, it is possible that they were aware that the video was republished by the marketing team from Starbucks, affecting the answers from participants and the internal validity of the study due to possible bias (Andrade, 2018, p. 498).

5.2 Discussion: H2: Gender has an effect on Purchase intention, and H2a: Female participants have a higher purchase intention than male participants.

In our society, there is often the common misconception and stereotypical idea about the portrayal “of shopping as a feminine activity” (Kuruvilla et al., 2009, p.715). Unfortunately, “advertisers have a history of using stereotypes in advertising”

(Campbell et al., 2023, p. 16). However, findings from this study demonstrate the opposite, since it was found that there is no significant effect between the gender of participants and their purchase intention, meaning that H2 and consequently, H2a are rejected.

Similar results were found in a study conducted by Pradhana and Sastiono (2019). In their study, they compared the online shopping behavior between men and women and found that in terms of total spending, men spend more money than women, but women purchase products with more frequency than men (p. 123). This result could be explained by the fact that, while women purchase items with more frequency, men purchase items that are more valuable with less frequency, leading to a similar total spending amount between genders.

Moreover, in a similar study conducted by Abrudan (2016), it was found that men and women follow different shopping orientations but share a similar shopping behavior in terms of the amount of money and time that they spend while shopping (p. 25).

As it is possible to notice, men and women share to a certain extent a similar purchase behavior in terms of the money that they are willing to spend and their willingness to purchase a product, which could explain why H2 and H2a were rejected. This evidences that shopping is not only an activity limited to women, but it is also an activity enjoyed by men.

To finalize, it is possible to conclude that gender does not necessarily determines the level or willingness from a person to purchase a product and stereotypes are not always a truthful representation of reality which could be demonstrated based on the findings from this study and the ones mentioned previously.

5.3 Discussion: H3 (Interaction effect): The effect of User-generated content (UGC) on Purchase Intention, compared to Firm-generated content (FGC), is greater when it concerns women compared to male participants.

Although it was expected that the effect of User-generated content would be stronger on the purchase intention of the female population, H3 is rejected because results demonstrate that the interaction between gender and genre of content did not significantly affect the level of purchase intention from participants.

As mentioned previously, this could be explained due to a variety of reasons such as the similarities that men and female participants share in terms of their preferences, their shopping behavior and total spending. In relation to the genre of content, the first reason that could explain why the effect of the User-generated video (UGC) was not stronger than Firm-generated content is that people tend to value physical attractiveness and social attractiveness in the advertisements that they watch (Peng, 2023, pp. 744, 751). The second reason is that nowadays, people have a more critical attitude towards advertisements (Stewart, 2022, Introduction section). In that sense, since participants were informed at the beginning of the survey that the video stimuli was from the Official Instagram Account of Starbucks, it is possible that they were aware about the video being selected and republished by the marketing team from Starbucks, which could have influenced the internal validity of the study due to possible bias (Andrade, 2018, p. 498).

5.4 Conclusions

With the popularity of social media networks, the advertisement industry has changed and nowadays, marketing professionals can rely on a wider set of options to advertise products and services. An example of this is the use of content created by online users as advertising tools. This genre of content, known as User generated content (UGC), has become highly popular due to its effectiveness in influencing consumers. However, other genres of content such as FGC have also shown to be equally influential on the purchase behavior of consumers.

Up to this day, there is not enough research about User-generated and Firm-generated content. For this reason, the aim of this study was to contribute to the existing literature regarding UGC and FGC, and answer the following research question: What is the impact of UGC (User-generated content) and FGC (Firm-generated content) on the purchase intention of male and female participants?

The Two-Way ANOVA test revealed no significant results, meaning that all hypotheses from this study are rejected. More precisely, this indicates that the purchase intention from participants was not significantly influenced by the biological gender of participants and the type of video that they watched during the experiment. In addition to this, the results indicate that User-generated content did not have a stronger influence

than Firm-generated content on the purchase intention of participants and Female participants did not have a higher purchase intention than male participants.

These results could be explained due to a wide variety of reasons such as the tendency to value physical attractiveness and social attractiveness in advertisements, the similarities that men and female participants share in terms of their preferences and the more critical attitude towards advertisements that consumers have nowadays. Also, it is important to remember that the Normality and Independence assumptions were violated. Therefore, there is a potential risk of biased results, and this should be considered by researchers when they are evaluating why all the hypotheses proposed in this study were rejected.

5.5 Limitations

The first limitation of the study involves the use of Purposive sampling for the selection of participants. Although with this sampling method it is possible to focus on participants with specific characteristics (such as being university student between the ages of 18 to 25 years old that are familiar with the coffee corporation Starbucks), findings based on this method “can only be generalized to the (sub)population from which the sample is drawn and not to the entire population” (Andrade, 2021, p.86). Therefore, findings from this study can only be applicable to the population of the study but cannot be generalized to a wider population with different characteristics.

The second limitation is related to the video stimuli used in the experiment. As mentioned before, only one video was used for the Firm-generated and User-generated conditions and the video was about a coffee drink called “The Pistaccio Latte” from Starbucks. Since only one video was used about the same product, it is recommended for future research to use multiple videos from a wider variety of products from different brands so the findings from the study have a higher validity.

The third limitation is related to the preconceived ideas that participants had about Starbucks because all the participants were already familiar with the brand. Due to this, it is likely that these preconceived ideas and familiarity with the brand could have influenced the results of the experiment and the reliability of the study.

The fourth limitation of this research is related to the group size of participants per condition and the use of random assignment. As mentioned before, per condition it

is necessary to have a minimum of 30 participants and this was possible to achieve by randomly assigning participants to different conditions. However, a consequence of this “randomness” is the presence of unequal group sizes per condition because it could not be controlled to which genre of video participants were exposed. Also, it is important to mention that most participants were female (39,8%), which could also have affected the generalizability of the results.

The fifth limitation is regarding the question “Do you think that the video that you watched previously was created by marketing professionals or non-professional online users?”, because this question was later excluded from the study. This occurred because it would have been better for this research to demand participants to also explain their answer and later, compare it with relevant academic literature.

The sixth limitation is regarding the absence of a pilot study or pre-test. A pilot study allows the recreation of an experiment, but in a smaller scale. One of its main advantages is that it can be used as a tool to identify potential areas of improvement and avoid unexpected difficulties in an experiment. Those difficulties can be related to the instruments used for data collection, the process to recruit participants, etc. (Hassan et al., 2006, p. 70). In that sense, since this experiment did not count with a pilot test or pre-test, this should be taken into consideration for the people interested in replicating this study in the future.

The seventh limitation is regarding the use of control questions but lack of a manipulation check. According to Hauser et al. (2018), a manipulation check is useful in a questionnaire to check the level of attention of participants, ensure that participants are paying attention to the instructions of an experiment and ensure that independent variables in a study are being manipulated correctly (p. 2). Due to this, it is encouraged for future research to include a manipulation check in the questionnaire.

The eighth limitation is regarding the impact of control questions on the validity of the study. According to Kung et al. (2018), control questions used on surveys to check the level of attention from participants could represent a threat to the validity of a study because the presence of these questions could cause overthinking since the process of deliberation is extended (p. 268). However, the author also mentions that there is still little evidence to fully support this idea. Therefore, it is recommended for

future replication of this study to evaluate the advantages and disadvantages of manipulation checks and control questions and choose carefully.

The ninth limitation is regarding the validity of the study. The validity of a study “refers to how well the results among the study participants represent true findings among similar individuals outside the study” (Patino & Ferreira, 2018, p. 183). However, the participants from the study were recruited exclusively through the platforms of What’s App and Facebook, and this could have affected the validity of the study because there could be university students that prefer to use other social media platforms or do not use social media. In that sense, to have a higher validity, it would be recommended to use a different method to recruit participants (online and face-to-face).

The tenth limitation is regarding the violation of assumptions for The Two-Way ANOVA. As mentioned previously, the assumptions of Normality and Independence were violated. This represents a threat to the internal validity of this study because this could cause biased estimates or false positives/negatives.

To finalize, the last limitation is regarding the User-generated video used in the experiment and the introduction of the survey. As mentioned previously, participants were informed at the beginning of the survey that the video that they were going to watch was from the official Instagram account of Starbucks. Therefore, it is possible that participants were aware that the User-generated video selected was republished by the marketing professionals from Starbucks for presenting a positive review, affecting the credibility of the video and internal validity of the study.

5.6 Recommendations for future research

As mentioned before, some of the limitations of this study are related to the sampling method, the distribution of respondents across experimental conditions, the video stimuli and the method used to recruit participants. In that sense, the following recommendations are presented for future research.

In first place, it is recommended to use multiple examples per condition to increase the validity of the findings because it is possible that pre-conceived ideas about the product/brand influence the answers of participants. For example, “Research has shown that preexisting individual bias about a product can have negative effects on future purchase behavior or use” (Luse et al., 2018, p. 25). Therefore, an efficient

strategy to reduce this could imply the use of multiple videos per conditions. Also, for each condition, the videos could involve different products and brands to avoid a personal bias. In addition to this, another strategy to avoid a personal bias could involve using a User-generated or Firm-generated video in which the product that is advertised is “brandless”. In that sense, the only information that participants would receive about the product/brand would be limited to the content of the video.

In second place, it is recommended for future research to use a different sampling method to avoid unequal group sizes because in this study most respondents were female, and this occurred because it was not possible to control the amount of female and male participants that had access to the survey once it was published on a What’s App or a Facebook group that is administered by third parties.

In third place, it is recommended for future research to consider using a different method for the recruitment of participants, because, despite the advantages of social media as “a cost-effective and efficient strategy for recruiting research participants” (Darko et al., 2022, p.1), it is important to consider that there are university students that do not like using social media, do not have an account on TikTok or Instagram specifically, or do not like to be part of online student groups. Therefore, it would be advised to look for participants offline or consider a wider set of social media networks (such as X, Snapchat, Threads, etc.).

In fourth place, another recommendation is related to the questions from the questionnaire because one of the last questions asked to participants was “Do you think that the video that you watched previously was created by marketing professionals or non-professional online users?” and the options to answer were “Yes” or “No”. It would have been better to also ask participants to justify their answer in a few words and later compare their answers to academic literature.

In fifth place, it is recommended for people interested in replicating this research in the future to consider using a pilot test or pre-test because, as mentioned previously, this is a useful tool to prevent unexpected circumstances that could occur in the process of an experiment.

In sixth place, the last recommendation is regarding the violation of ANOVA assumptions. Since the assumptions of Normality and Independence were violated for

The Two-Way ANOVA test, it is recommended for future research to consider the possibility of using a different statistical test or consider applying mathematical transformations of the data (Wall, 2022, p. 586).

To finalize, the last recommendation for people that would like to replicate the study is to not mention at the beginning of the survey that the video was “reposted” by the company because this could reduce the credibility of the video. Instead, it is recommended to use a User-generated video that has not been published directly by the company to increase the credibility of the video because it is likely that these selected videos, were “reposted” for presenting a positive review.

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Appendices

Appendix A1. Questionnaire of the experiment

Dear respondent, Thank you for your interest in this research. I would like to invite you to answer the following questionnaire. In this questionnaire, you will be shown one video advertisement published on the Official Instagram account of Starbucks (@starbucks), which I would like you to evaluate. The questionnaire will take approximately 5 minutes to fill in. Kindly provide careful and honest answers to each question as I am genuinely interested in your personal opinions.

CONFIDENTIALITY OF DATA

All the information collected during this survey is intended for research purposes only and all the data collected will remain confidential and gathered anonymously. There are no anticipated risks or discomforts associated with your participation in this study.

VOLUNTARY PARTICIPATION

If you would like to participate in the survey, please press “Yes” and the survey will start. If you would like to stop participating, please press “No”. If you press on “No”, you will be taken to the end of the survey and your answers will be deleted.

FURTHER INFORMATION

Thanks for accepting to participate in the survey. If you have any questions regarding this questionnaire, please feel free to contact me at the following email 696153yc@eur.nl and I will answer your questions. This study was approved by the Ethics Committee of Erasmus University Rotterdam.

If you understand the information above and freely consent to participate in this study, click on the “I agree” button below to start the questionnaire.

- I agree
- I do not agree

Please, press the "play" button, pay attention and watch the following video until the end:

Q1: Below are a list of questions designed to measure what you are thinking at this moment. There is of course, no right answer for any statement. The best answer is what you feel is true of yourself at the moment. Be sure to answer all of the items, even if you are not certain of the best answer. Again, answer these questions as they are true for you right now.

	Disagree	Somewhat Disagree	Neutral	Somewhat Agree	Agree
I would buy this product/brand rather than any other brands available.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am willing to recommend that others buy this product/brand.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I intend to purchase this product in the future.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q2: Below are a list of questions designed to measure what you are thinking at this moment. There is of course, no right answer for any statement. The best answer is what you feel is true of yourself at the moment. Be sure to answer all of the items, even if you are not certain of the best answer. Again, answer these questions as they are true for you right now.

	Disagree	Somewhat Agree	Neutral	Somewhat Agree	Agree
I watched the video until the end.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I paid close attention to the video.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I had the product/brand presented in the video in mind while answering the questions.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q3: Do you think that the video that you watched previously was created by marketing professionals or non-professional online users?

- I believe the video was created by non-professionals.
- I believe the video was created by Marketing professionals.

Q4: Are you familiar with the coffee brand Starbucks?

- Yes
- No

Q5: How old are you? Please type your answer.

Q6: What is your biological gender?

- Male
- Female

Q7: Are you a university student?

- Yes
- No

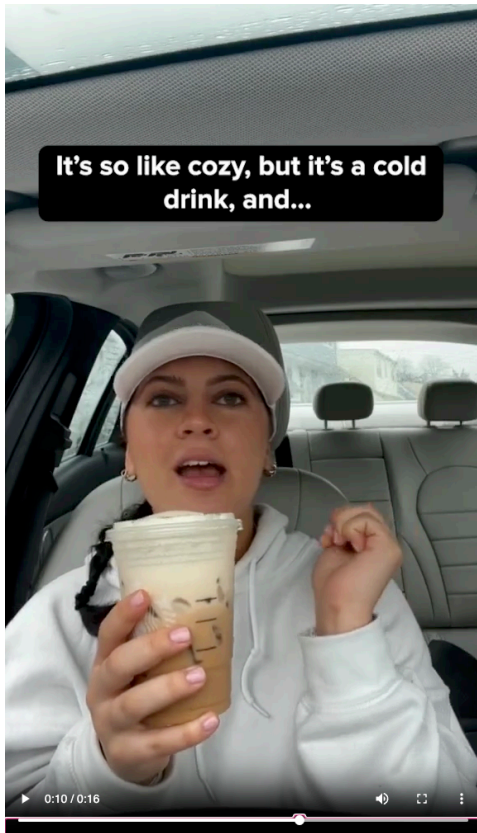
Thanks for answering all the questions and thanks for participating in this study. The purpose of the study was to measure the purchase intention of participants exposed to FGC (Firm-generated content) and UGC (User-generated content). For this, participants were assigned randomly a video example of UGC or FGC and had to answer the same questions/statements. Once again thanks for dedicating your time to answer the questionnaire and please, remember that this study is anonymous and confidential. If you have any further questions or concerns, please feel free to contact this email address: 696153yc@eur.nl

Appendix A2. Stimulus material

Video 1 - Firm-generated video



Video 2 – User-generated video



Appendix A3. SPSS Output

Estimates

Dependent Variable: PITOTAL

Sex	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Female	3,295	,094	3,109	3,480
Male	3,399	,129	3,144	3,654

Pairwise Comparisons

Dependent Variable: PITOTAL

(I) Sex	(J) Sex	Mean Difference (I-J)	Std. Error	Sig. ^b	95% Confidence Interval for Difference ^b	
					Lower Bound	Upper Bound
Female	Male	-,104	,160	.515	-,420	,211
Male	Female	,104	,160	.515	-,211	,420

Based on estimated marginal means

b. Adjustment for multiple comparisons: Least Significant Difference
(equivalent to no adjustments)

Appendix A4. AI Declaration

Declaration Page: Use of Generative AI Tools in Thesis

Student Information

Name: Yeria Bresnia Ceron Mendoza

Student ID: 696153

Course Name: Master Thesis CM5000

Supervisor Name: P.M.A Tenbült, PhD

Date: 27-06-2024

Declaration:

Acknowledgment of Generative AI Tools

I acknowledge that I am aware of the existence and functionality of generative artificial intelligence (AI) tools, which are capable of producing content such as text, images, and other creative works autonomously.

GenAI use would include, but not limited to:

- Generated content (e.g., ChatGPT, Quillbot) limited strictly to content that is not assessed (e.g., thesis title).
- ~~Writing improvements, including~~ grammar and spelling corrections (e.g., Grammarly)
- Language translation (e.g., DeepL), without generative AI alterations/improvements.
- Research task assistance (e.g., finding survey scales, qualitative coding verification, debugging code)
- Using GenAI as a search engine tool to find academic articles or books (e.g.,

I declare that I have used generative AI tools, specifically [Name of the AI Tool(s) or Framework(s) Used], in the process of creating parts or components of my thesis. The purpose of using these tools was to aid in generating content or assisting with specific aspects of thesis work.

I declare that I have NOT used any generative AI tools and that the assignment concerned is my original work.

Extent of AI Usage

I confirm that while I utilized generative AI tools to aid in content creation, the majority of the intellectual effort, creative input, and decision-making involved in completing the thesis were undertaken by me. I have enclosed the prompts/logging of the GenAI tool use in an appendix.



Signature:

Date of Signature: 27-06-2024

Ethical and Academic Integrity

I understand the ethical implications and academic integrity concerns related to the use of AI tools in

I declare that I have used generative AI tools, specifically [Name of the AI Tool(s) or Framework(s) Used], in the process of creating parts or components of my thesis. The purpose of using these tools was to aid in generating content or assisting with specific aspects of thesis work.

Extent of AI Usage

I confirm that while I utilized generative AI tools to aid in content creation, the majority of the intellectual effort, creative input, and decision-making involved in completing the thesis were undertaken by me. I have enclosed the prompts/logging of the GenAI tool use in an appendix.

Ethical and Academic Integrity

I understand the ethical implications and academic integrity concerns related to the use of AI tools in coursework. I assure that the AI-generated content was used responsibly, and any content derived from these tools has been appropriately cited and attributed according to the guidelines provided by the instructor and the course. I have taken necessary steps to distinguish between my original work and the AI-generated contributions. Any direct quotations, paraphrased content, or other forms of AI-generated material have been properly referenced in accordance with academic conventions.

By signing this declaration, I affirm that this declaration is accurate and truthful. I take full responsibility for the integrity of my assignment and am prepared to discuss and explain the role of generative AI tools in my creative process if required by the instructor or the Examination Board. I further affirm that I have used generative AI tools in accordance with ethical standards and academic integrity expectations.

Signature: [digital signature]

Date of Signature: [Date of Submission]

I declare that I have NOT used any generative AI tools and that the assignment concerned is my original work.



Signature:

Date of Signature: 27-06-2024