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Live stream selling in the gaming industry: An  
analysis of live video selling through the  
Twitch.tv platform.

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## Chapter 1: Introduction

Live streaming is becoming increasingly popular as a form of internet entertainment in the gaming business, to the point that big tech giants such as Google, Facebook, Amazon and Microsoft have decided to acquire and develop their own live streaming platforms centered around gaming content (El Afi et al., 2021). It is very common for content creators such as youtubers, influencers and streamers to engage in commercial activities in order to monetize their channels and grow their business, may that be in the form of third-party sponsorships, or through active promotion of goods and services produced by the creator. For example, the renowned twitch streamer “Ninja” actively promotes his merchandise in most of his streams by linking his official website, but he was also endorsed by Adidas in 2019 for an official sponsorship (La Gazzetta dello Sport, 2019). The growing gaming industry now includes a sizable number of consumers who enjoy watching others play games, recent years have seen streaming platforms doubling their user base year-on-year, with figures reaching over a hundred million unique monthly users (Sjöblom et al., 2016). The golden standard for game streaming today is Twitch.tv, the biggest streaming platform in the world with around 140 million monthly active users (Mediakix, 2021); and with revenue in the video games segment expected to reach US\$175.10bn in 2022, these numbers are only likely to grow (Statista, 2022). The aim of this research is to gain a deeper understanding of the selling mechanisms that take place on game live streaming platforms such as Twitch.tv. In less than five years, live commerce in China has transformed the retail industry and established itself as a major sales channel, reaching about 1237.9 billion yuan in value (\$185.5 billion) (Statista, 2021). Live-commerce-initiated sales could account for as much as 10 to 20 percent of all e-commerce by 2026 and are expected to reach \$25 billion by 2023 in the U.S alone (TCS, 2022). Live selling is an extremely common activity within the Twitch community,

which may take place through multiple forms (Johnson et al., 2019); this research will tackle sponsorship and merchandise advertisement from streamers on Twitch. Understanding how viewership's behaviour is influenced by different commercial activities in live streams can provide useful managerial insights for streamers and companies alike, since these two sides of the market are invested in these activities on different levels. One of the managerial problems identified in previous studies is that there is no insightful research in how companies' and streamers' different forms of advertising impact consumer's behavior and intention to buy. Content creators are arguably the most important stakeholder in the gaming live stream market, it would therefore be interesting to understand how proprietary products and services impact their follower's purchase behavior in order to leverage their assets so as to increase monetization opportunities.

Given its importance in the field of media science, some preliminary work was carried out utilizing the uses and gratifications theory: this theory states that consumers that engage in content do so seeking some sort of personal gratification. For example, Sjöblom and Hamari (2016) identified five factors that influence consumers' behavior toward live game streaming, namely cognitive, personal, social, affective, and hedonic drivers. The authors argue that spectators watch live gameplay to relieve tension and stress, as well as to learn about the game being streamed and learn about its strategies. The impact of social elements on users' psychological and behavioral characteristics was explained by Hilvert-Bruce et al. (2018); Social connection, a sense of community, meeting new people, entertainment, knowledge seeking, and a lack of external support in real life were all identified as important motives for engagement in their study. Users desire connection with the platform, the streamer, and other users for the sake of social support and hedonic goals, they claim. Following the topic of social contexts, Lim et al. (2012) stated that users' interactive behavior is significantly influenced by their sense of belonging, which

is embodied in their feelings of emotional connectedness with the streamer and their peers. They discovered that watching the game while connecting with others via chat messaging has a big impact on their commitment to the live-streamed game and the streamer itself. What research has achieved thus far has mainly focused on the social and motivational contexts, analyzing the underlying motivations behind live stream viewership (Lim et al., 2012, Hilvert-Bruce et al., 2018, Sjöblom et al., 2016).

Another study looked at how flow, amusement, and endorsement influenced Twitch users' perceptions regarding game live streaming (Kim et al., 2022). Given the hedonistic character of the site, they discovered that having fun is the primary motivator. Furthermore, the ability to maintain a sense of flow through continuous concentration on the activity, acknowledgment of the streamer as an influencer, and social engagement with them were all found to be positively associated to the audience's attachment and inclination to keep watching (Kim et al., 2022). As it is underlined by existing literature, engagement is a fundamental part of the live streaming ecosystem. Interaction is magnified by embedded chats, emotes and reactions, which manage to create a connection between the streamer and viewers. This strong relationship causes viewers to seek information about broadcast timings, making it necessary to subscribe to the channel. However, in the case of the Twitch platform and YouTube Gaming, users must pay a monthly fee to complete this procedure (El Afi et al., 2021; Twitch, 2022; Youtube, 2022). In this regard, there is the option to just follow the streamer rather than pay a fee; however, some channels require a subscription in order to have access to additional game content and specific attributes such as exclusive emotes, badges, and previously recorded and saved videos on their pages (Twitch, 2022). The pre-existing literature on the topic is very useful in order to understand the relevance of the subject and the scope of potential variables to take into consideration; the aforementioned research studies all manage to identify what drives so many people to engage in live video content, but among the gaps

identified so far is the missed interpretation of what kind of commercial interactions happen through live streaming platforms. In-platform economies such as Twitch donations and subscriptions have been extensively discussed (El Afi et al., 2021; Sjöblom et al., 2016), but many commercial interactions happen without the direct mediation of the streaming platforms, and this is what this paper sets out to analyze.

The focus of this paper's analysis will more specifically shift towards game live streaming on the Twitch.tv platform and try to gain a clear understanding of how content creators' marketing decisions impact their audience's likelihood to engage in commercial activities on their channel. The starting point of the analysis will be viewers' purchase intention.

**Purchase intention**, defined as the willingness of a customer to buy a certain product or service, is an exemplary variable that can ultimately tell us how consumers react to a streamer's content concerning commercial activities on the broadcast. Based on the principles proposed by the Uses and Gratifications theory, them being that users tend to look for and engage in media that suits their specific interests (Ruggiero, 2000; Shao, 2009), this paper sets out to analyze what form of advertising most influences consumers' willingness to buy a product during a live Twitch stream. According to UG theory people tend to seek some sort of gratification when engaging in media content (Sjöblom et al., 2016), therefore what this research means to demonstrate is that when viewers are exposed to proprietary merchandise by the streamer, they will be more positively influenced to buy that product compared to an exposure by the same streamer to a third party sponsored product. This research therefore will focus on two types of live product advertisement: third party sponsorships, and proprietary merchandise. Data collection will be carried out using a survey structure. The objective is to encompass users that are directly involved with a specific streamer and follow him, this will ensure the relevance of their responses to the scope of the research. The study will focus on one of the most

famous streamers in the world: “Ninja”. The goal is to gather responses from the streamer’s user base by posting the survey link in the embedded platform’s chat and reaching out to members of the streamer’s community, therefore ensuring that any response to the survey is as relevant as possible. The survey structure will be constructed through Qualtrics software, and then imported as a dataset into IBM SPSS Statistics for analysis.

## Chapter 2: Literature Review

Live streaming is defined as user-generated content (Lu et al., 2018) that enables synchronous communication between a streamer and viewers, as well as between a viewer and other viewers (Yu et al., 2018), more specifically as a combination of media forms; it involves a broadcaster, which uploads live video content that may include games, performances, daily vlogs, and more (Hu et al., 2017). During broadcasts, streamers can engage with the audience through dialogue and viewers can interact with broadcasters using embedded chats and text messages (Hamilton et al., 2014). Live streaming is a topic that has captured the attention of the academic community, with research studies focusing on user engagement (Hu et al., 2017; Yu et al., 2018) and their psychological motivations towards live streaming (Hilvert-Bruce et al., 2018). Through live stream broadcasts and platforms, audiences are able to communicate and engage in social activities with each other and with streamers themselves; these interactions between users are considered elements that can build and maintain an audience (Hamilton et al., 2014; Lim. et al., 2012). It is essential to stress the importance of live streaming as a medium that has contributed significant changes in the way people consume media: reducing the gap between individual content creators and traditional media production companies (Sjöblom et al., 2019). Thanks to the merging relationship between media consumption and media production, viewers have accustomed to a new type of “celebrity”, one that is decentralized and focused on smaller audiences; the result is an overall increase in digital content creation both social and passive (Sjöblom et al., 2019).

Now that we have set the background for live streaming it is important to define the concept of live commerce, which can be described as ‘the delivery of e-commerce activities and transactions via a live streaming platform’ (Xu et al., 2020). When talking



about live commerce we must identify some key elements, in particular the presence of a live stream space (platform), technology and infrastructure in order to provide an environment that delivers live interaction, social activities and commerce. Live commerce can also be defined as a subset of e-commerce, which is embedded with social interaction (Cai et al., 2019). According to *Cai et al.* there are two types of live streaming commerce: one refers to live streaming features integrated into e-commerce or shopping sites and apps, and another one being when existing live streaming platforms integrate commercial activities (Cai et al., 2019), the last category pertains to streaming platforms such as the one under scrutiny in this dissertation. Platforms such as Twitch.tv, Youtube live, Facebook live, Instagram live were not created with the idea of commerce in mind, but they now easily integrate commercial activities in almost all of its content be it through native advertising with embedded sponsored segments or promotion of merchandise (Twitch.tv, 2022; Youtube.com, 2022). One of the benefits of live commerce is the ability to accelerate conversions: according to McKinsey, companies have reported conversion rates close to 30%, which is up to ten times than traditional e-commerce (McKinsey, 2021).

The live streaming platform under consideration in this paper is Twitch.tv: a live streaming platform focused on gaming. Through a web interface, it enables users to stream their gaming activities to an audience of viewers. Some examples of streams may include amateur users' playthroughs of games and extensive broadcasts of eSports events. There are two kinds of users on Twitch: a broadcaster and a viewer. A viewer is someone who follows and watches a given channel's content, whereas a broadcaster is someone who streams their gameplay via a specific channel. Each streamer can only have one live broadcast at a time, which can be accessed live or watched on demand at a later date. The channels have a built-in chat room that enables interaction between users, both

broadcasters and viewers, to improve communication. Twitch is the leading provider of video game livestream material (May et al., 2020), in the third quarter of 2020 Twitch witnessed over 4 billion hours of programming watched, with an average of 215 million concurrent viewers (May et al., 2020). Young male adolescents and adults make up the majority of Twitch's audience, which is frequently regarded as one of the most elusive in advertising and fundamentally different from other social media platforms (e.g., Instagram) (Pollack et al., 2021). Twitch is the perfect place for businesses to reach these new audiences because of the aforementioned target users and the less restrictive advertising policies compared to other platforms (Pollack et al., 2021).

Johnson and Woodcock (2019) identify a wide variety of monetization strategies in live broadcasts, namely: *Subscribing*; *Donating/Cheering*; *Advertising*; *Sponsorships*; *Competitions/Targets*; *Unpredictable rewards*; and *Channel games*. For the purpose of this research the focus will shift on pure selling mechanisms such as *Advertising* and *Sponsorships*; advertising happens in the classic form of ad segments at various points in the live stream, streamers can run them while they take a break or go to the bathroom, or they can randomly appear at certain points during live streams with a banner that entices viewers to stay on the stream in order to support the content creator (Twitch, 2022). Most of these marketing initiatives are related to products targeted to a specific “geek” audience, therefore pertaining to gaming related products, technology or peripherals contextual to the content displayed on the stream (Johnson et al., 2019), but this is not always the case. It is not uncommon for non-gaming related content and advertising to appear in live streams, such as food delivery services, sports brands, etc. (Pollack et al., 2021). This further exemplifies the relevance of the live broadcasting media and of the Twitch platform in particular: any company or brand can advertise anything through these services, but it is up to them to build a connection between the live content and their brand.

The other form of monetization this paper will focus on is *Sponsorships*. This method of advertising builds on the blocks of already known practices in media and sports, but applied to live game broadcasting, it is even more prevalent in the context of esports, where large crowds of fans gather to see their favorite gamers compete in online matches (Deng et al., 2015). Sponsored segments can take place during the course of a broadcast, with streamers interrupting the game or pausing in order to talk about a product, this form of advertising takes a more social and engaging form as the streamer is directly recommending a product or service rather than simply running an ad in the background, these kinds of adverts are often accompanied by banners or links to a third party website where the content creator will benefit from a commission for every purchase through his referral link (Johnson et al., 2019). The success of brand sponsorships will be contingent on the relationship a brand has with its ‘sponsee’, in addition to its public brand attitude (Jalleh et al., 2002). An important part of ambassador sponsorships is the constant relation endorsers build between a brand and their audience; it is demonstrated that when a brand provides product functions that meet customer needs, consumers will create psychological associations with the brand and raise their purchase intention consequently (Fournier, 1998). Among the elements that construct purchase intention are a consumer’s attitude and assessment as well as external factors (Ajzen et al., 1975). Purchase intention can measure the possibility that a consumer will buy a certain product; the higher the purchase intention, the higher the consumer’s willingness to purchase a product (Dodds et al., 1991; Schiffman, et al., 2000). Purchase intention denotes that consumers will make purchase decisions based on previous experience and preferences, as well as rely on the external environment to gather information in order to consider alternatives and make those decisions (Dodds et al., 1991; Schiffman, et al., 2000; Yang, 2009). Purchase intention is related to consumers' focus on making a purchase and their propensity to do so at a later date (Wu et al., 2015). This is supported by Chen et al. (2010), who conducted

research on the online environment and discovered that sellers' platform advertisements can influence buyers' decision-making (Mangold & Faulds, 2009). Every consumer who wants to make an online purchase from an e-vendor on a social networking service must interact with the e-vendor whenever there is a desire to make the purchase. Fishbein and Ajzen (1975) defined this "intention" as "the strength of one's intention to perform a specific behaviour," and Kim and Park (2013) agreed, stating that customers who place their trust in a particular platform are more likely to recommend the platform to others and make purchases through it. It is known that an advertising endorser's popularity and attractiveness, together with his/her expertise can attract consumer's short-term attention and boost purchase intention (Chi et al., 2009). As a matter of fact, advertising endorsers have the ability to 'impose' a certain product onto its audience thus increasing consumers' brand attitude towards the advertised product and promote purchase intention (Vien et al., 2017). It was found that the higher a brand's image, the higher the purchase intention (Wang, 2010), this underlines the influence brand endorsers have on consumer's willingness to buy a certain product.

Another topic of interest for the purpose of this research is **brand attitude**; according to Huhn et al., an attitude is an assessment, through a continuum, with positive and negative characteristics acting as anchors, that an individual makes through an association of knowledge (Huhn et al., 2018). A consumer's attitude concerning whether he/she has gathered enough information varies from strongly positive to strongly negative (Nolder & Kadous, 2017). So, attitudes may differ in direction (positive vs. negative) and/or strength (strong vs. weak), and the power of such attitude determines the extent to which it influences the behavior (Petty, Haugtvedt, & Smith, 1995). Attitudes already formed by individuals may, however, act as mediators of behavior, influencing their purchase intention (Cheung & Thadani, 2012; Rocha, Ferreira, & Silva, 2014). A peculiar

characteristic about brand attitude is that it is relative, dependent on the motivations of a particular consumer (Percy et al., 1992). Thus, if the underlying motivations of the consumer change, so does their evaluation of that brand (Percy et al., 1992). Nonetheless, brand attitude is an element that must be taken into consideration when we talk about consumers' behavior and intention to buy, as every single person will have some sort of underlying motivation to buy a certain brand rather than another. The first hypothesis this research intends to verify is the following:

***H1: Streamer merch ads have a more significant influence on viewer Purchase intention than Third party sponsor ads.***

This hypothesis is the core building block of the research as it defines the dependent variable (Purchase Intention) and the independent variable (Form of advertising). Following the analysis of extant literature and as defined by Cheung & Thadani, 2012, the aim is to verify that brand attitude is a valid mediator between the independent variable and purchase intention:

***H2: Brand attitude represents a valid mediator in the interaction process between Form of advertising and purchase intention.***

Currently, research on live streaming commerce is limited (Sun et al. 2019). Specifically, Sun et al. (2019) applied the IT affordance factors (e.g. visibility affordance; meta-voicing affordance; guidance shopping affordance) to explore the consumer engagement and purchase intention in the live streaming environment. Similarly, Zhang et al (2020) indicated that live streaming strategy improved customers' online purchase intention by reducing psychological distance and perceived uncertainty.

One of the key areas of research in the communication and media sciences is the subject of why individuals consume various forms of media. The Uses and Gratification (UG) theoretical perspective may be the most popular theoretical development and framework in this area of research (Katz, Blumler, & Gurevitch, 1973; Katz, Gurevitch, & Haas, 1973; Rubin, 2009; Ruggiero, 2000). According to UGT, the motivation for using a particular medium is a specific form of gratification that is sought (Katz, Blumler, & Gurevitch, 1973; Ruggiero, 2000). This theory proposes that the user actively seeks out their preferred medium as an audience, as opposed to the medium actively seeking the user out (Wang, Fink, & Cai, 2008). Additionally, according to UG, the media competes for audiences with sources other than just those that are associated to media (Katz, Blumler et al., 1973). Within UG, needs are often classified in five categories (Cognitive, Affective, Personal Integrative, Social Integrative and Tension Release) (Katz, Gurevitch, et al., 1973; West & Turner, 2010). The Uses and Gratification Theory, which was developed from theories about the reasons why people choose particular forms of media consumption (Rubin, 2009), has been applied to study consumer engagement in online social networking sites, video sharing, live streaming, and esports. Examples include Ku, Chen, and Zhang (2013), West & Turner (2010), Whiting & Williams (2013), and Chiang & Hsiao (2015). People actively seek out, consume, and participate in media that better meets their specific wants and interests than other media, claims UGT (Ruggiero, 2000; Shao, 2009). The functional approach provided by UGT can assist in understanding how diverse media engagements relate to the satisfaction of distinct psychological requirements. Based on the above theory we know gratification is a key part of the consumption experience of people. Therefore, what this research aims to verify is whether certain forms of advertising have a more significant impact on brand attitude than others. The objective here is to prove that when viewers are exposed to content that is linked to

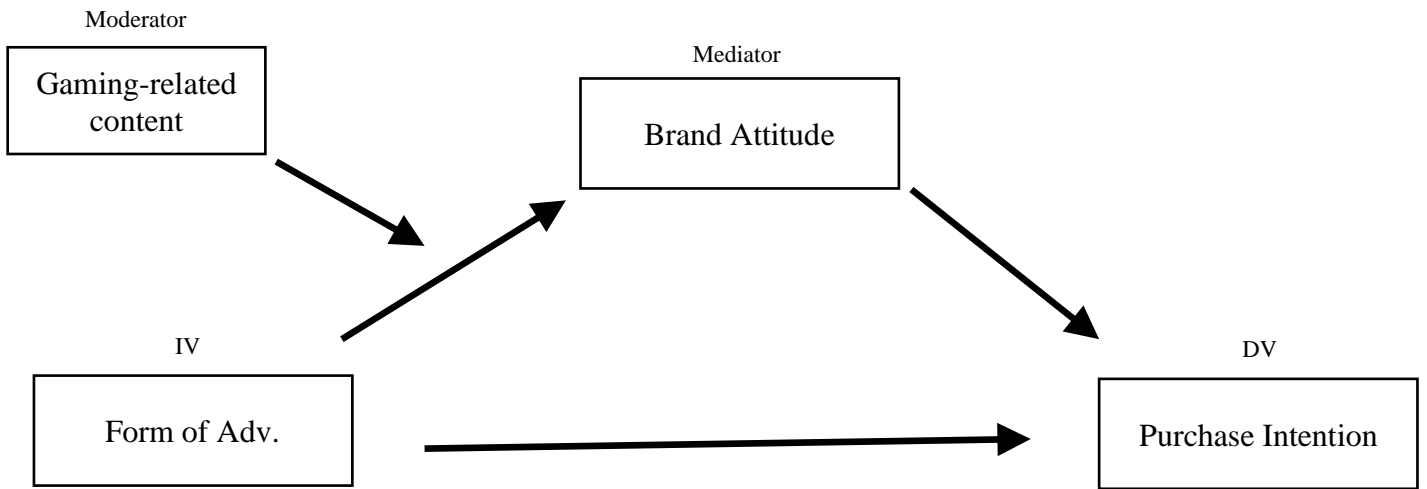
the streamer they are watching live right now, will have a stronger impact on brand attitude than if it was related to a third party.

***H3: Streamer merch ads have a stronger impact on brand attitude than Third party sponsor ads.***

The fourth hypothesis means to verify that if the content displayed in an advertisement is gaming related, there will be a more positive impact on the relationship between Form of advertising and Brand attitude. This final hypothesis introduces the last variable in the model, the moderator, more specifically “Gaming related content”.

***H4: Gaming related advertising has a greater positive impact than non-gaming related advertising on the relation between Form of adv and Brand Attitude***

Aforementioned research studies have tackled different structures and objectives. What this dissertation sets out to outline is the impact two different forms of live stream advertising have on purchase intention, namely third-party sponsorships, referred to as ‘sponsorships’ and proprietary streamer merchandise, referred to as ‘merchandise’. The model takes into account the mediation of brand attitude in the relation between the dependent and independent variables as we have seen that the opinion consumers form regarding a certain product or service influences their behavior. Furthermore, the analysis will consider the moderating effect of whether the advertised content is gaming-related or not; this is an interesting element in order to understand if this categorical variable will significantly strengthen the relationship between IV and DV.





### Chapter 3: Research methodology

This chapter begins with a summary of the study's research methodology, outlining how the analysis will be conducted; the description of the independent, dependent, mediator, and moderator variables, their relationships, and the survey scales used afterward. The approach used to acquire the data and the analysis that followed will then be discussed. The results of the latter will determine if the developed hypotheses verified or not. Finally, suggestions for future research will be explored, as well as its limitations.

As mentioned by Johnson and Woodcock (2019), there are a multitude of forms of advertising. Along with traditional advertising segments, the Twitch platform allows for various kinds of publicity: banners, homepage ads, traditional segments (30/60 seconds), etc. (Twitch, 2022). When engaging in advertising, streamers also have the option to promote whatever they choose during the live stream without cutting to a layered video, thus making the ad exposure even more seamless. This makes it more appealing for them to engage in promotion of their own brands in addition to sponsored content; for the purpose of this analysis three experimental conditions have been considered, in particular two types of sponsored content and one first party merchandise content. The independent variable is categorical and divided into three categories, namely non-gaming related sponsorship, gaming related sponsorship, and merchandise. The five steps of the online purchasing decision-making process include perception of need, information search, alternative evaluation, purchase choice, and post-purchase behaviour (Kotler et al., 2007). The approach is predicated on the existing notion that consumers go through all five steps of the process for each transaction they make. When a need is perceived, the buyer's decision-making process starts. Both internal and external stimuli have the potential to trigger a desire. Marketing managers must identify the elements and circumstances that

cause consumers to perceive a need. Consumer research is required to determine the kind of issues or wants that motivate the purchase of a good or service, as well as the root causes of such issues or demands. A curious customer might not always look for information online, he will probably make the purchase at that very moment if the incentive is strong and the good or service is readily available. In other cases, the customer might feel the urge to look up more information online. The scope of the stimulus, the volume of initial data, and the ease of finding it all influence how much information the consumer seeks out. The user can find information from a variety of sources, including websites or portals he is accustomed to visiting as well as search engines, which are typically the starting point. Word-of-mouth plays a significant role: asking friends and family for recommendations on places to visit and seeking out additional information from others in one's social circle is essentially a mechanism to learn more and gather input from a group of people believed to be reliable. The customer then uses the data gathered to make a decision from a smaller pool of options. Each consumer evaluates the good or service using a different set of attributes, each of which is given a varied level of importance. Depending on their demands and preferences, consumers give each quality varying degrees of importance. This step is aided online by comparison services, which enable users to compare not only the prices of alternatives but also the services and quality of the product itself. The consumer will make the purchase of the absolutely preferred alternative, but there are two variables that may come into play between the intention and the decision. The first is the attitude of others. In addition, the purchase intention may be influenced by exogenous circumstances that were not anticipated beforehand. The consumer's satisfaction with the purchase will determine whether they are satisfied or not. The customer will be content if the good or service lives up to his expectations; otherwise, he will continue to be unsatisfied. Consumer dissatisfaction increases as the gap between expectations and performance widens.

Modern consumers have access to a variety of online and offline channels for expressing their discontent. Consumers can use online review sites as methods to externalize their feedback about the building or location they've visited. The objective of this research is to examine the relationship between the different forms of advertising and the viewers' willingness to finalize the purchase, and according to previous literature considered in this paper (Cheung & Thadani, 2012; Rocha, Ferreira, & Silva, 2014), brand attitude plays a role in mediating this relationship. Consumers' preferences and overall assessments of a brand, which reflect their likes and dislikes, are tied to their attitude toward that brand (Solomon, 2014). It is argued that brand attitude is a sign of behavioral intentions. Since brand attitude is one of the primary factors influencing purchase intention, the brand's attitude has a substantial impact on that intention. Till and Busler (2000) made the observation that one of the important determinants of purchase intention, according to the Theory of Reasoned Action, is attitude toward engaging in the behaviour. The study also revealed that consumers are more likely to make a purchase if they have a positive perception of the brand (Till and Busler, 2000). According to Till and Busler (2000), regardless of the influence's direction, the more positively consumers feel about a product or brand, the more of an impact it has on their behaviour.

Subsequently, this analysis takes into consideration a moderator variable: Gaming related content. The purpose of this element is to test the hypothesis that gaming related content will impact the relation between the independent and mediator variable. By introducing this categorical dummy variable in the analysis, we will be able to test the hypothesis that gaming related content positively influences the relationship between the form of advertisement and brand attitude.

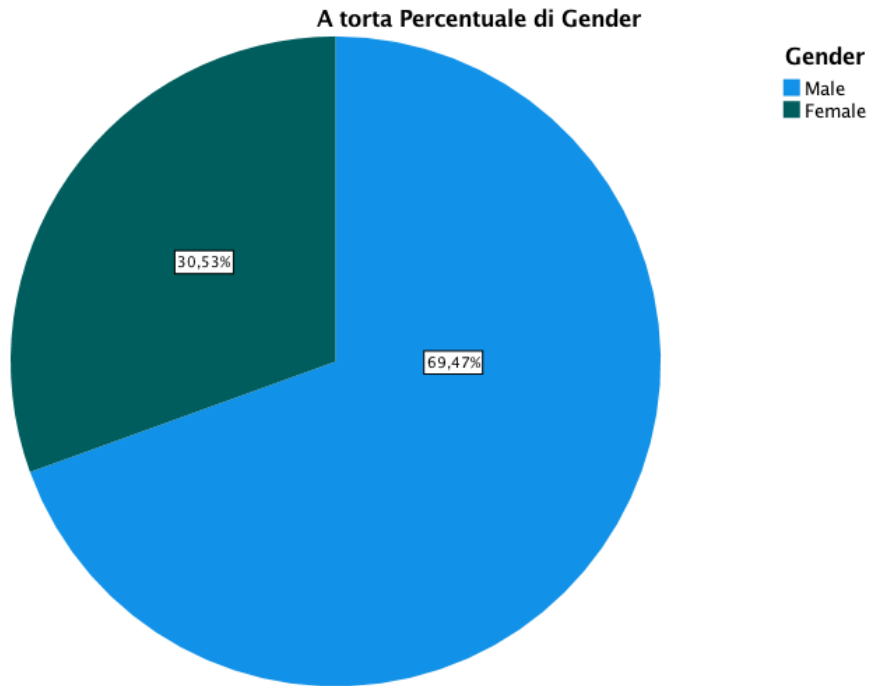
## Survey data and analysis

The study aims to investigate whether viewer's purchase intention will be higher when they recognize that the content they are being exposed to is a first party ad for the streamer's merchandise. On the other hand, we want to demonstrate that purchase intention will be lower when viewers are exposed to sponsored content, which can be gaming, or non-gaming related. Moreover, we set out to investigate whether brand attitude acts as a mediator of the relationship between the form of the advertisement and purchase intention. Lastly, we seek to understand whether if the content is gaming related or not acts as a moderator of the relation between form of advertising and brand attitude. In order to test the hypotheses, a between-subjects experimental design was implemented. Respondents were recruited through the use of the social interface embedded in the Twitch platform, namely the chat section of the livestream and the "community" option on the streamer's homepage which allows direct messaging to members of the influencer's community. This method of recruitment has allowed for a very specific segmentation of the subjects, aiming for precise responses and optimal recognition of the brands and influencer present in the experimental conditions, amounting to a total of 105 respondents (survey questions found in Appendix 1). A total of 10 questions were asked: the first questions tested the gaming related content variable, then three questions to assess the brand attitude score, and three questions to evaluate the purchase intention score, followed by three questions to extract demographics. Participants were randomly assigned one of the three experimental conditions: three screenshots of a livestream from the influencer "Ninja", one containing a sponsored non-gaming related advertisement, one containing a sponsored gaming related advertisement, and one advertisement containing "Ninja" proprietary merchandise. Subsequently the moderator (binary categorical variable) was tested, asking participants if they considered the previously

shown ad as gaming related. The next step was to ask recipients for an evaluation of brand attitude (mediator, numerical variable) and purchase intention (dependent, numerical variable) using a three-item five-point Likert scale (1=strongly disagree, 5=strongly agree) adapted from Singh and Banerjee (2018) in a study about exploring the influence of Celebrity Credibility on Brand Attitude, Advertisement Attitude and Purchase Intention. After conducting validity and reliability analyses, the three items from the scale were then averaged in order to form an overall purchase intention and brand attitude score. Finally, participants were asked for demographics, in particular age, gender, and education level.

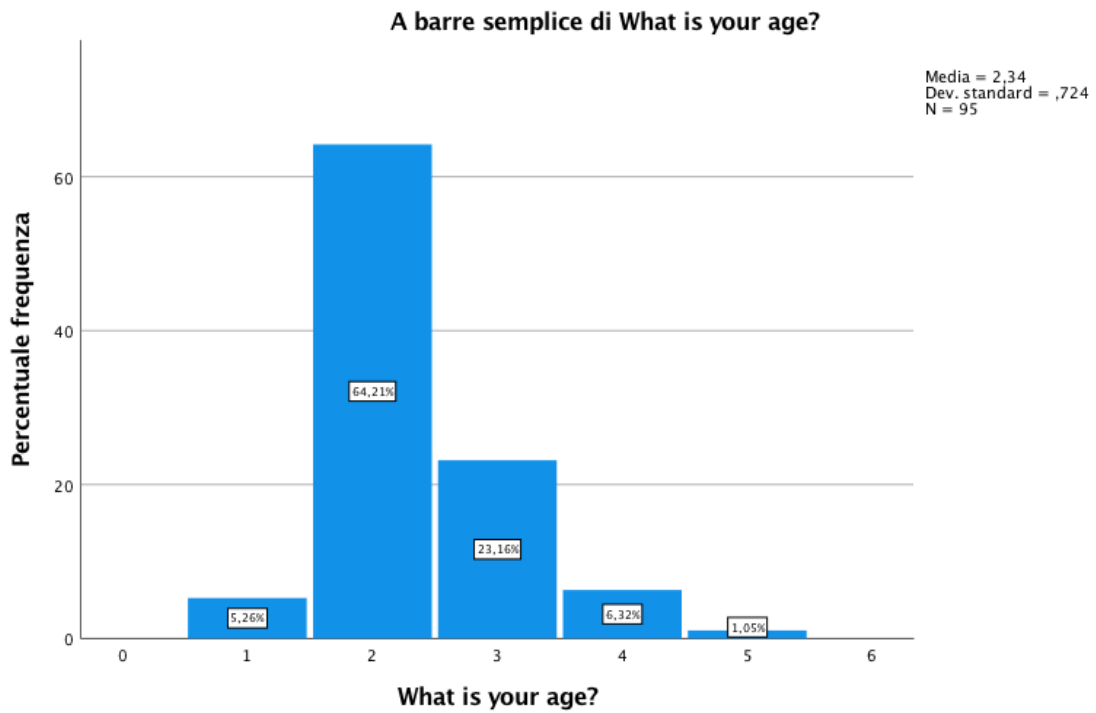
The first step in order to analyze the collected data was firstly to account for incomplete responses; total complete submissions amounted to 95 respondents. Consequently, through the use of SPSS software, descriptive statistics were gathered to understand the quality of the sample and check if it was representative of the population. Frequency tables and graphs of both the demographics and the research questions can be found in appendix 2. From the demographics data it appears that 69.47% (66) of respondents were male, while the remaining 30.53% (29) were female.

Figure 1: Gender



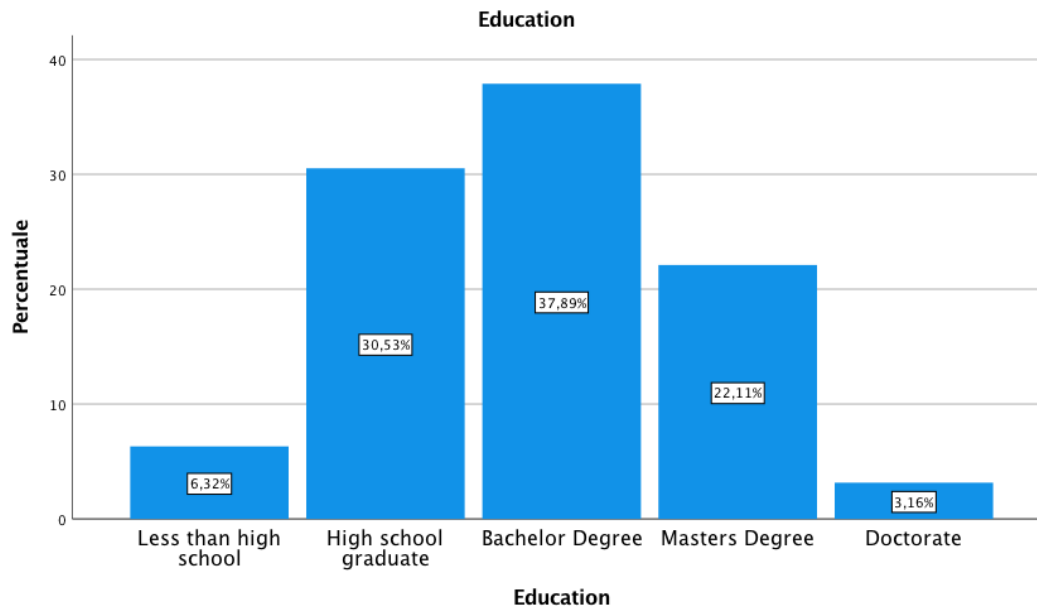
If we focus our attention on figure 2, we can observe that most of the respondents were “Between 16-24” (64.21%) with a frequency of 61, followed by “Between 25-34” (23.16%) with a frequency of 22, “Between 34-50” (6.32%) with a frequency of 6, one person over 50 and 5 people under 15 years old.

Figure 2: Age



Concerning the level of education (Figure 3), the top respondents had a bachelor's degree (37.89%), immediately followed by high school graduates (30.53%) and master's degree (22.11%).

Figure 3: Education



Demographics questions suggest that the average respondent was a Male Gen-Z student between 16 and 24 years old, immediately followed by millennials (25-34 years old). Overall, the level of education is well distributed between high school diploma, bachelor and master's degree.

After reporting the descriptive statistics for the sample, correlation analysis was conducted between all of the scale items. The Pearson coefficient in figure 4 is positive and strongly significant ( $p\text{-value} < 0,001$ ) between all the brand attitude and purchase intention scale items, while the correlation between the gaming related content variable and the brand attitude and scale items is not significant. This data already suggests that gaming related content does not mediate the relation between the form of advertising and brand attitude, but this will be verified shortly hereafter.



Figure 4

Correlazioni

		Gaming_Related	Brand_Attitude_ 1	Brand_Attitude_ 2	Brand_Attitude_ 3	Purchase_Intenti on_1	Purchase_Intenti on_2	Purchase_Intenti on_3
Gaming_Related	Correlazione di Pearson	1	-,102	-,084	-,133	-,023	-,127	-,007
	Sign. (a due code)		,324	,420	,197	,827	,220	,948
	N	95	95	95	95	95	95	95
Brand_Attitude_1	Correlazione di Pearson	-,102	1	,800**	,771**	,649**	,641**	,718**
	Sign. (a due code)	,324		<,001	<,001	<,001	<,001	<,001
	N	95	95	95	95	95	95	95
Brand_Attitude_2	Correlazione di Pearson	-,084	,800**	1	,771**	,623**	,725**	,704**
	Sign. (a due code)	,420	<,001		<,001	<,001	<,001	<,001
	N	95	95	95	95	95	95	95
Brand_Attitude_3	Correlazione di Pearson	-,133	,771**	,771**	1	,645**	,588**	,692**
	Sign. (a due code)	,197	<,001	<,001		<,001	<,001	<,001
	N	95	95	95	95	95	95	95
Purchase_Intention_1	Correlazione di Pearson	-,023	,649**	,623**	,645**	1	,624**	,764**
	Sign. (a due code)	,827	<,001	<,001	<,001		<,001	<,001
	N	95	95	95	95	95	95	95
Purchase_Intention_2	Correlazione di Pearson	-,127	,641**	,725**	,588**	,624**	1	,719**
	Sign. (a due code)	,220	<,001	<,001	<,001	<,001	<,001	<,001
	N	95	95	95	95	95	95	95
Purchase_Intention_3	Correlazione di Pearson	-,007	,718**	,704**	,692**	,764**	,719**	1
	Sign. (a due code)	,948	<,001	<,001	<,001	<,001	<,001	
	N	95	95	95	95	95	95	95

\*\* La correlazione è significativa a livello 0,01 (a due code).

In addition to the correlation analysis, the consistency of the scales used in the questionnaire was evaluated through the use of the Cronbach Alpha reliability index. The aforementioned index accounts for values between 0 and 1, the closer to 1 the value of the coefficient is, the higher the reliability of the scale. In addition to the Cronbach Alpha, the “if item deleted” Alpha score was assessed in order to determine if the elimination of an item from the scale would result in a significant improvement in the Alpha score.

Results from the scale reliability test for the brand attitude scale show an excellent Alpha score (> 0.9) as can be seen in figure 5. The “Cronbach’s Alpha if Item Deleted” values show that the score would not improve if any one of the scale items was deleted. The brand attitude scale consisting of three items is therefore accepted and the “Brand Attitude” score is calculated as the average of these items.

Figure 5

Riepilogo elaborazione casi

		N	%
Casi	Valido	95	100,0
	Escluso <sup>a</sup>	0	,0
	Totale	95	100,0

<sup>a</sup> Eliminazione listwise basata su tutte le variabili nella procedura.

Statistiche di affidabilità

Alpha di Cronbach	Alpha di Cronbach basata su elementi standardizzati	N. di elementi
,913	,914	3

Statistiche elemento-totale

	Media scala se viene eliminato l'elemento	Varianza scala se viene eliminato l'elemento	Correlazione elemento-totale corretta	Correlazione multipla quadratica	Alpha di Cronbach se viene eliminato l'elemento
Brand_Attitude_1	7,09	5,002	,836	,699	,868
Brand_Attitude_2	7,27	4,520	,835	,699	,871
Brand_Attitude_3	7,13	5,069	,812	,660	,887

Results from the scale reliability test for the purchase intention scale show a good Alpha score (> 0.8) as can be seen in figure 6. The “Cronbach’s Alpha if Item Deleted” values show that the score would not improve if any one of the scale items was deleted. The brand attitude scale consisting of three items is therefore accepted and the “Brand Attitude” score is calculated as the average of these items.

Figure 6

Riepilogo elaborazione casi

		N	%
Casi	Valido	95	100,0
	Escluso <sup>a</sup>	0	,0
	Totale	95	100,0

<sup>a</sup>. Eliminazione listwise basata su tutte le variabili nella procedura.

Statistiche di affidabilità

Alpha di Cronbach	Alpha di Cronbach basata su elementi standardizzati	N. di elementi
,877	,876	3

Statistiche elemento-totale

	Media scala se viene eliminato l'elemento	Varianza scala se viene eliminato l'elemento	Correlazione elemento-totale corretta	Correlazione multipla quadratica	Alpha di Cronbach se viene eliminato l'elemento
Purchase_Intention_1	6,99	6,713	,751	,596	,836
Purchase_Intention_2	7,02	6,808	,717	,530	,865
Purchase_Intention_3	7,08	5,929	,823	,680	,769

Descriptive statistics for the newly generated scales (Brand Attitude and Purchase Intention) are presented in figure 7.

Figure 7

*Statistiche*

---

		Brand_Attitude	Purchase_Intention
N	Valido	95	95
	Mancante	0	0
Media		3,5825	3,5158
Mediana		3,3333	3,3333
Deviazione std.		1,07954	1,23557
Intervallo		4,00	4,00
Minimo		1,00	1,00
Massimo		5,00	5,00

---

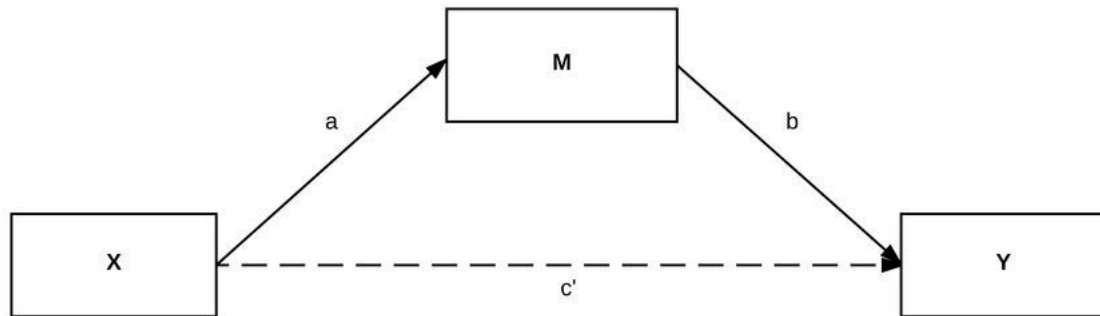
Following scale reliability analysis, a three-way ANOVA test was carried out in order to verify whether these scales have significant differences in the means of the different scenarios. The null hypothesis of the ANOVA test is that the three subgroups of Form of advertising have equal means for the scale of interest (Non-gaming sponsor, Gaming sponsor, Merchandise). Instead, their statistically significant difference is the alternative hypothesis. If the p-value of the ANOVA test is less than 0.05, we will reject the null hypothesis and come to the conclusion that there is a significant difference in the average scores. The Levene test will also be used to determine whether the ANOVA test's foundational assumption (that variances are homogeneous) is true. The Post Hoc tests will be run to confirm which scenarios differ significantly if the ANOVA test results are statistically significant ( $p < 0.05$ ). The three experimental conditions (Non-gaming sponsor, Gaming sponsor, Merchandise) are respectively assigned to values 1, 2 and 3 in the analysis. The first thing that comes to attention when looking at the descriptives for form of advertising is that scores for Merchandise are highest, however ANOVA test must be performed to assess the significance of the differences between the conditions. The Levene test (Appendix 3.2), which was used to determine the homogeneity of the

variances, is statistically significant, hence we can reject the null hypothesis that variances are equal. We can conclude that for two of the scales under examination, there is a statistically significant difference in the average scores of brand attitude and purchase intention ( $p < 0.05$ ), between the multiple experimental conditions. Concerning gaming related content, results show that the variable is not significant ( $p > 0.05$ ), therefore we cannot reject the null hypothesis that there is a statistically significant difference in the average scores of gaming related content and purchase intention. To understand which scenarios are significantly different, post-hoc tests were conducted. Results from post-hoc tests show that for brand attitude and purchase intention scales, the average scores of all the scenarios are significantly different ( $p > 0.05$ ).

To test for the moderation effect that gaming related content has on the relation between form of advertising and brand attitude, another three-way ANOVA was conducted taking brand attitude as dependent variable. Once again, the Levene test (Appendix 4.1) was statistically significant, hence we can reject the null hypothesis that variances are equal. In the subsequent ANOVA test, results show that the form of advertising scale is statistically significant thus the null hypothesis of equal variances between form of advertising and brand attitude was rejected (Appendix 4.2). Moreover, gaming related content and the interaction effect between form of advertising and gaming related content are not significant, meaning that the null hypothesis of equal variances cannot be rejected in this case. These results show that there is no moderation effect of gaming related content on the relation between form of advertising and brand attitude, as can be seen from the mean graph in Appendix 4.3, when the advertisement shown is gaming related, the average mean in brand attitude does not change significantly.

Since it has been concluded that there is no moderation effect between form of advertising and brand attitude, study of mediation effects has been conducted through the use of model 4 in the SPSS Macro Process by Andrew F. Hayes using model 4 which is represented as follows in figure 8:

Figure 8



In this specific case model variables will be the following:

- Dependent variable Y: Purchase Intention
- Independent variable X: Form of advertising
- Mediator variable M: Brand Attitude

Figure 9

Run MATRIX procedure:

\*\*\*\*\* PROCESS Procedure for SPSS Version 4.1 \*\*\*\*\*

Written by Andrew F. Hayes, Ph.D. [www.afhayes.com](http://www.afhayes.com)  
 Documentation available in Hayes (2022). [www.guilford.com/p/hayes3](http://www.guilford.com/p/hayes3)

\*\*\*\*\*

Model : 4  
 Y : Pint  
 X : Form\_AD  
 M : Brand\_At

Sample  
 Size: 95

Coding of categorical X variable for analysis:

Form_AD	X1	X2
1,000	,000	,000
2,000	1,000	,000
3,000	,000	1,000

Firstly, since the independent variable is multicategorical, the first experimental condition (non-gaming sponsor) will be the baseline scenario, the dummy X1 will explain the gaming-related sponsor compared to the non-gaming sponsor and the dummy X2 will explain the streamer merchandise compared to the non-gaming sponsor as shown in figure 9.

Results for the regression model are listed below.

*Figure 10*

```

*****
OUTCOME VARIABLE:
  Brand_At

Model Summary
      R      R-sq      MSE      F      df1      df2      p
      ,7626      ,5816      ,4982      63,9340      2,0000      92,0000      ,0000

Model
      coeff      se      t      p      LLCI      ULCI
constant      2,6768      ,1229      21,7844      ,0000      2,4327      2,9208
X1      ,7059      ,1832      3,8540      ,0002      ,3422      1,0697
X2      1,9137      ,1713      11,1735      ,0000      1,5735      2,2539

Standardized coefficients
      coeff
X1      ,6539
X2      1,7727

```

The first interaction taken into consideration when running the regression model in Process is the relation between the independent variable and the mediator. As can be seen in figure 10, X1 is statistically significant and positive ( $p < 0.05$ ): meaning that the gaming sponsor has a significantly higher impact (70.59%) on brand attitude compared to the non-gaming sponsor. Furthermore, if we look at X2, merchandise has a drastically higher significant impact (191.37%) on brand attitude compared to non-gaming sponsor.

Figure 11

```

*****
OUTCOME VARIABLE:
  Pint

Model Summary
      R      R-sq      MSE      F      df1      df2      p
    ,9389    ,8815    ,1869    225,5555    3,0000    91,0000    ,0000

Model
      coeff      se      t      p      LLCI      ULCI
constant    1,3792    ,1868    7,3843    ,0000    1,0082    1,7502
X1          1,1139    ,1209    9,2125    ,0000    ,8738    1,3541
X2          2,1344    ,1611   13,2522    ,0000    1,8145    2,4544
Brand_At    ,2885    ,0639    4,5181    ,0000    ,1617    ,4154

Standardized coefficients
      coeff
X1          ,9016
X2          1,7275
Brand_At    ,2521

```

The subsequent interaction under consideration is the one on purchase intention by form of advertising and brand attitude, as both these variables impact the dependent variable. In figure 11, we can see that both the independent variable and the mediator have a statistically significant impact on the dependent variable ( $p < 0.05$ ), and as a matter of fact they account for an 88.15% change in purchase intention ( $R\text{-squared} = 0.8815$ ). Additionally, we can observe that, given a constant brand attitude mediation, both X1 and X2 have a positive and statistically significant impact on purchase intention; although if we observe X2, streamer merchandise has a very high impact on purchase intention (213%) compared to non-gaming sponsor given all other things equal. X1 on the other hand, has a lower impact on purchase intention (111%) than X2 given a constant brand attitude mediator. Ultimately, we can observe that brand attitude positively and significantly impacts purchase intention ( $p < 0.05$ ).

Moving on to the total, direct and indirect effects of form of advertising on purchase intention, results in figure 12 show that the total effect of the independent variable on the



dependent variable is significant with a p-value of 0.000. The direct effect is represented by the interaction between form of advertising (X1, X2) and purchase intention without the presence of a mediator variable, and it is indeed statistically significant ( $p = 0.000$ ). Finally, the indirect effect of form of advertising on purchase intention, which is represented by the interaction between independent and dependent variable through the mediator brand attitude, is indeed statistically significant since for both X1 and X2 there is no zero value between the lower-level confidence interval and the upper-level confidence interval of the indirect effect, that is both confidence intervals are of the same sign. It is therefore safe to say there is a mediation of form of advertising on purchase intention through brand attitude. In particular, streamer merch has a significantly stronger impact on brand attitude than the other conditions and has a significantly stronger impact on purchase intention than the other conditions when brand attitude is a mediator in the relation. Since both direct and indirect effects are significant, the mediation that takes place in this model is partial, we can also note that both direct and indirect effects are positive, meaning that the mediation is in fact complimentary.

Figure 12

```

***** TOTAL, DIRECT, AND INDIRECT EFFECTS OF X ON Y *****

Relative total effects of X on Y:
      Effect      se      t      p      LLCI      ULCI      c_ps
X1    1,3176    ,1235   10,6717  ,0000   1,0724   1,5628   1,0664
X2    2,6866    ,1154   23,2711  ,0000   2,4573   2,9159   2,1744

Omnibus test of total effect of X on Y:
      R2-chng      F      df1      df2      p
      ,8549    270,9531    2,0000    92,0000  ,0000
-----

Relative direct effects of X on Y
      Effect      se      t      p      LLCI      ULCI      c'_ps
X1    1,1139    ,1209    9,2125  ,0000    ,8738    1,3541    ,9016
X2    2,1344    ,1611   13,2522  ,0000    1,8145    2,4544    1,7275

Omnibus test of direct effect of X on Y:
      R2-chng      F      df1      df2      p
      ,2338    89,7400    2,0000    91,0000  ,0000
-----

Relative indirect effects of X on Y

Form_AD  ->  Brand_At  ->  Pint

      Effect      BootSE      BootLLCI      BootULCI
X1    ,2037      ,0812      ,0687      ,3888
X2    ,5522      ,1450      ,2895      ,8593

```

## Discussion and Hypothesis testing

Now that the multiple analyses have been carried out, the hypotheses formulated at the beginning of this dissertation will be either rejected or not rejected. The first hypothesis stated that “Streamer merch ads have a more significant influence on viewer Purchase intention than Third party sponsor ads”. The first thing that can be said regarding this statement is that all scales’ average scores appeared to be higher for streamer merchandise, immediately followed by gaming sponsor and non-gaming sponsor. Furthermore, the regression analysis suggested that streamer merchandise had a significantly higher impact on purchase intention compared to the other two conditions.

*H1: Streamer merch ads have a more significant influence on viewer Purchase intention than Third party sponsor ads. → NOT REJECTED*

The second hypothesis stated that “Brand attitude represents a valid mediator in the interaction process between form of advertising and purchase intention”. When looking at the mediation regression analysis we can observe that there is indeed a significant positive mediation of brand attitude in the relation between the form of advertising and purchase intention. The significance of the mediation is given by the absence of a zero value in the confidence interval of the indirect effect; furthermore, since the indirect and direct effects and have the same sign the mediation is complimentary.

*H2: Brand attitude represents a valid mediator in the interaction process between Form of advertising and purchase intention. → NOT REJECTED*

The third hypothesis stated that “Streamer merch ads have a stronger impact on brand attitude than third party sponsor ads”. As previously stated, we have seen that all scales’ average scores appeared to be higher for streamer merchandise, immediately followed by gaming sponsor and non-gaming sponsor. Furthermore, the regression analysis suggested

that streamer merchandise had a significantly higher impact on brand attitude compared to the other two conditions.

*H3: Streamer merch ads have a stronger impact on brand attitude than third party sponsor ads → NOT REJECTED*

The fourth and final hypothesis stated that “Gaming related advertising has a greater positive impact than non-gaming related advertising on the relation between Form of adv and Brand Attitude”. We have seen from the ANOVA table in the analysis that the moderation effect of gaming related content on the relation between form of advertising and brand attitude is not statistically significant, meaning that whether the advertised content is gaming related or not does not have an impact on the relation between independent and mediator variable.

*H4: Gaming related advertising has a greater positive impact than non-gaming related advertising on the relation between Form of adv and Brand Attitude → REJECTED*

## Contributions and Managerial Implications

What this dissertation has brought to the table in terms of managerial relevance for live streaming commerce stakeholders spans multiple elements. Stakeholders involved include companies that may want to engage in advertising through streaming platforms, influencers operating on the Twitch.tv platform as well as other live streaming mediums. One of the main findings of this research is that the association of advertised content on the Twitch platform with gaming related content does not contribute significantly to positive brand attitude from the viewers. This may in fact open possibilities for companies that want to venture into live commerce and advertising that were not sure about their product catering to a specific audience. Although it does not matter whether the content is gaming related or not in order to generate positive brand associations and boost purchase intention, it does matter when the advertised product is related to the streamer itself. This may be an interesting insight for companies and streamers alike; it may be more profitable for a company (especially a less known one) to associate its brands with the streamers' rather than to sponsor the creator in a more traditional way. On the other hand, this work outlines that streamers generate a very strong brand attitude in the mind of their viewers; this might just be the starting point for more novel ways to promote their products, or to expand their product line altogether knowing that curating their own brand may prove to be more profitable than relying on a third-party sponsor.

## Research Limitations

This research is subject to a variety of limitations which may offer insights for further investigations. One significant limitation of this research and common to many others is the limited number of respondents: since the analysis aims at understanding how different forms of advertising impact the purchase intention of viewers, it is essential to have a larger number of respondents in order to better represent an average live stream lobby population. Another area in which this dissertation has its restrictions is the limited number of forms of advertising taken into consideration as independent variables: due to human and technological constraints the analysis was limited to a restricted number of experimental conditions, as the manpower and computational power required to produce such an experiment would demand resources at the corporate/research level. Nonetheless, it would be worthwhile for managers and academics to look into the subject to find what forms of advertising work best for live streaming audiences on different platforms. Additionally, this research focused on a single streamer and single live streaming platform; this may be representative for the population constituted by the viewership of the influencer under analysis, but may not be as representative of the platform viewership as a whole. Future studies may want to focus their efforts on a variety of different streamers and platforms, not necessarily related to gaming content: a multitude of live streaming platforms provide for a wide variety of content that companies can leverage to target specific audiences. The Twitch platform itself does not limit itself to hosting gaming related content only, meaning that the focus of other studies may be shifted onto other streaming genres and content.

## Conclusions

Ultimately, the goal of this thesis was to gain an insight on the effect of the attitude regarding different forms of advertising in live commerce on the purchase intention of Twitch users; given the affinity that the Twitch platform has with gaming, it was also tested whether gaming related content could have a moderating effect on the relationship between the different forms of advertising and consumers' brand attitude. In particular, through the creation of a questionnaire, the objective was to target a very specific type of respondent that could provide coherent and significant results given the focalized nature of the research. It has emerged from these results that there is indeed a relationship between different advertising forms and their ability to impact viewer's purchase intention differently. In particular, purchase intention is higher when the advertised content is directly associated with the streamer. Streamer merchandise is the experimental condition that manifested the absolute highest effect on purchase intention; furthermore, it has been concluded that brand attitude mediates the relationship between these variables in a positive way. Of the four hypothesis that were formulated, only one was rejected, bringing the analysis to establish that gaming related content in live advertising is not significantly relevant as to moderate the relation between the advertisement and the attitude of the viewers towards the advertised brand. This conclusion was the least expected among the proposed hypotheses, as the link between Twitch.tv and the gaming community along with the extant literature would have suggested otherwise, but it nevertheless contributes some insight into a constantly evolving market with untapped marketing possibilities. This project set out to dive deeper into the selling mechanisms taking place on the most popular streaming platform in the world which are common to many other ones, successfully demonstrating that different advertising forms of live commerce make a significant difference in consumer's willingness to buy a product. By

relying on fundamental theories in extant literature together with previous research on the underlying motives characterizing live stream viewership, this work has expanded on these topics while adding useful insights for company managers who wish to venture into live commerce and for influencers trying to promote and monetize their brands. The study conducted in this dissertation certainly has the possibility to pave the way for future analyses on a wider variety of commercial interactions in the live stream industry, as well as gaining a deeper understanding of what customer segments can be targeted through these platforms. Data regarding the live commerce market in Asia is very promising, and this wave is very quickly expanding to the western market; it is essential for marketers to explore the new possibilities given by this trend in order to stay on the cutting edge of modern-day marketing strategies. This research marks a small step towards what may well become an extensively researched topic both academically and commercially, by raising awareness on what is a fast-growing industry and providing some preliminary insight on more specific content (such as gaming) and a select platform (such as Twitch.tv). Overall, this dissertation has proven successful results in demonstrating the different relations between different forms of advertising in Twitch live streams and consumers' willingness to buy, as well as the underlying mediation of brand attitude in this relationship.



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# Appendix

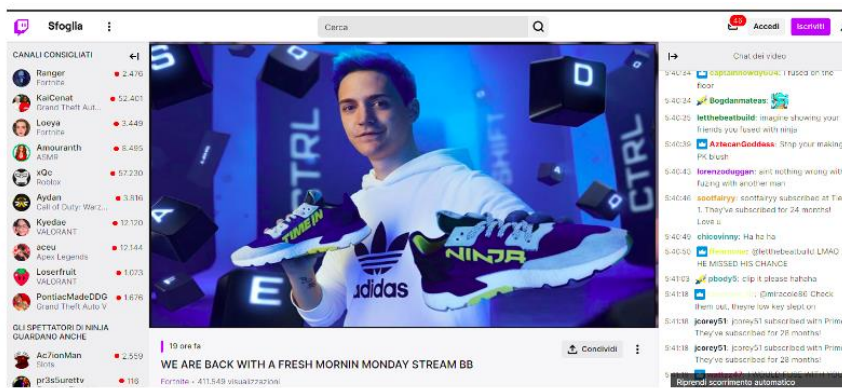
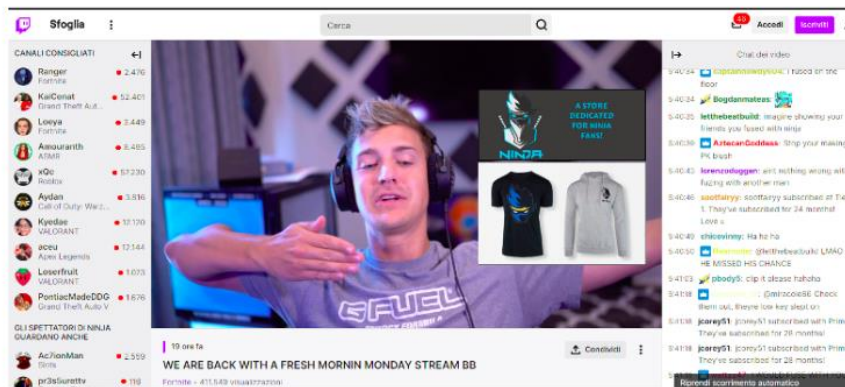
## Questionnaire

### Introduction

Hi, I am a Marketing student at Luiss Guido Carli University in Rome. I am conducting a research for my Master thesis in Marketing analytics and metrics on **Live Commerce**. I'm asking you to fill in this survey which will only take about **3 minutes** of your time. Please note that all answers are completely anonymous. Thank you for your collaboration.

On the next page you will see a screenshot from a possible **advertisement** from the Twitch streamer 'Ninja'. Please pay close attention to the picture as the following questions will be based on it.

### Randomization



Sfoglia Carica Accedi Iscriviti

Ninja Teams Up with G FUEL | NINJA x G FUEL

19 ore fa

**WE ARE BACK WITH A FRESH MORNIN MONDAY STREAM BB**

Formate • 411.549 visualizzazioni

Chat del video

9:40:24 **capoanowayak**: I rased on the floor

9:40:24 **@godamates**

9:40:25 **letthebestbuild**: imagine showing your friends you losted with ninge

9:40:39 **AztecAnGoddess**: Ship your making PK brush

9:40:43 **korenzoduggen**: aint nothing wrong with facing with another man

9:40:46 **santhayy**: santhayy subscribed at Tier 1. They've subscribed for 24 months! Love u

9:40:49 **chicovinity**: Ha ha ha

9:40:50 **Reemano**: @letthebestbuild LMAO HE MISSED HIS CHANCE

9:41:03 **pbody9**: clip it please hahaha

9:41:18 **em**: @miscoe86 Check them out. they're low key peds on

9:41:18 **corey51**: jcorev51 subscribed with Prime. They've subscribed for 26 months!

9:41:18 **corey51**: jcorev51 subscribed with Prime. They've subscribed for 28 months!

9:41:18 **reprendi**: scontentimento automatico

## Scales and Demographics questions

Do you consider the previously displayed Advertisement as gaming-related?

No

Yes

On a scale from 1 (Strongly disagree) to 5 (Strongly Agree) how do you feel about the following statements?

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
My opinion on the brand sponsored by the streamer is very favourable	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I think the brand sponsored by the streamer is very useful	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I think the brand sponsored by the streamer is very good	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

On a scale from 1 (Strongly disagree) to 5 (Strongly Agree) how do you feel about the following statements?

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
I am likely to purchase the brand sponsored by the streamer	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I would like to have more information about the brand sponsored by the streamer	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am interested in the brand sponsored by the streamer	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



What is your age?

Under 15

Between 16-24

Between 25-34

Between 34-50

Over 50

What is your education level?

Less than high school

High school graduate

Bachelor Degree

Masters Degree

Doctorate

What is your gender?

Male

Female

## Descriptives

### *Form\_of\_Adv*

		Frequenz a	Percentu ale	Percentuale valida	Percentuale cumulativa
Valid	1,00	33	34,7	34,7	34,7
o	2,00	27	28,4	28,4	63,2
	3,00	35	36,8	36,8	100,0
	Totale	95	100,0	100,0	

### *Age*

		Frequenz a	Percentu ale	Percentuale valida	Percentuale cumulativa
Valid	Under 15	5	5,3	5,3	5,3
o	Between 16-24	61	64,2	64,2	69,5
	Between 25-34	22	23,2	23,2	92,6
	Between 34-50	6	6,3	6,3	98,9
	Over 50	1	1,1	1,1	100,0
	Totale	95	100,0	100,0	

### *Gender*

		Frequenz a	Percentu ale	Percentuale valida	Percentuale cumulativa
Valid	Male	66	69,5	69,5	69,5
o	Femal e	29	30,5	30,5	100,0
	Totale	95	100,0	100,0	

### *Education*

		Frequenz a	Percentu ale	Percentuale valida	Percentuale cumulativa
Valid	Less than high o school	6	6,3	6,3	6,3

High school graduate	29	30,5	30,5	36,8
Bachelor Degree	36	37,9	37,9	74,7
Masters Degree	21	22,1	22,1	96,8
Doctorate	3	3,2	3,2	100,0
Totale	95	100,0	100,0	

*Brand\_Attitude\_1*

		Frequenz a	Percentu ale	Percentuale valida	Percentuale cumulativa
Valid	Strongly disagree	5	5,3	5,3	5,3
o	Somewhat disagree	7	7,4	7,4	12,6
	Neither agree nor disagree	31	32,6	32,6	45,3
	Somewhat agree	25	26,3	26,3	71,6
	Strongly agree	27	28,4	28,4	100,0
	Totale	95	100,0	100,0	

*Brand\_Attitude\_2*

		Frequenz a	Percentu ale	Percentuale valida	Percentuale cumulativa
Valid	Strongly disagree	5	5,3	5,3	5,3
o	Somewhat disagree	18	18,9	18,9	24,2
	Neither agree nor disagree	27	28,4	28,4	52,6
	Somewhat agree	17	17,9	17,9	70,5
	Strongly agree	28	29,5	29,5	100,0
	Totale	95	100,0	100,0	

*Brand\_Attitude\_3*

		Frequenz a	Percentu ale	Percentuale valida	Percentuale cumulativa
Valid	Strongly disagree	4	4,2	4,2	4,2
o	Somewhat disagree	11	11,6	11,6	15,8
	Neither agree nor disagree	28	29,5	29,5	45,3
	Somewhat agree	26	27,4	27,4	72,6
	Strongly agree	26	27,4	27,4	100,0
	Totale	95	100,0	100,0	

*Purchase\_Intention\_1*

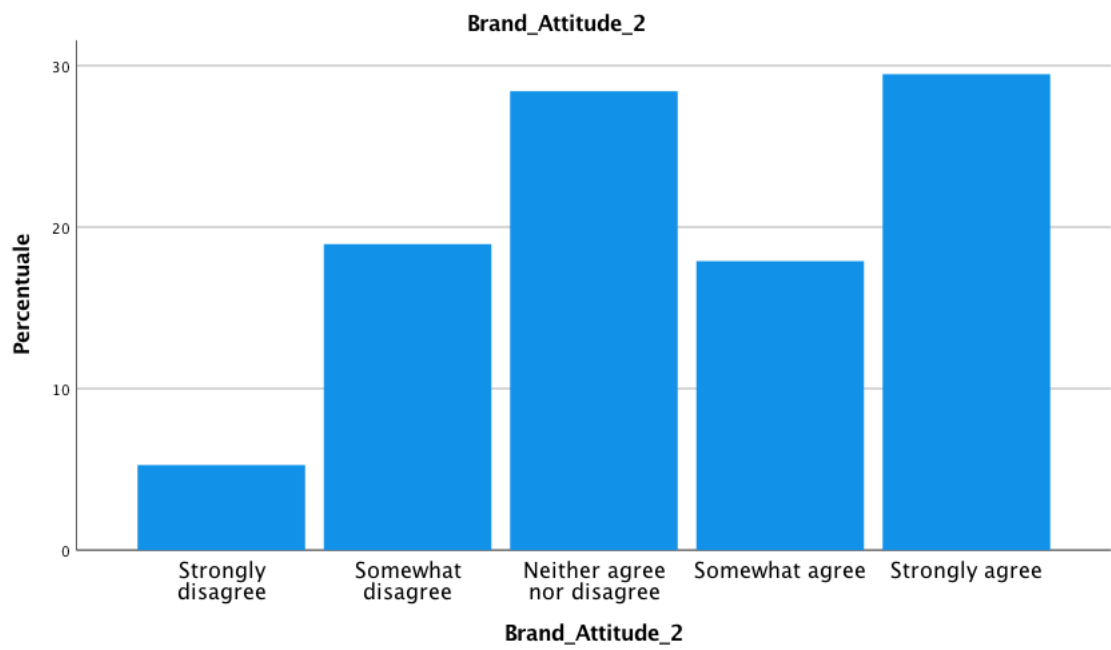
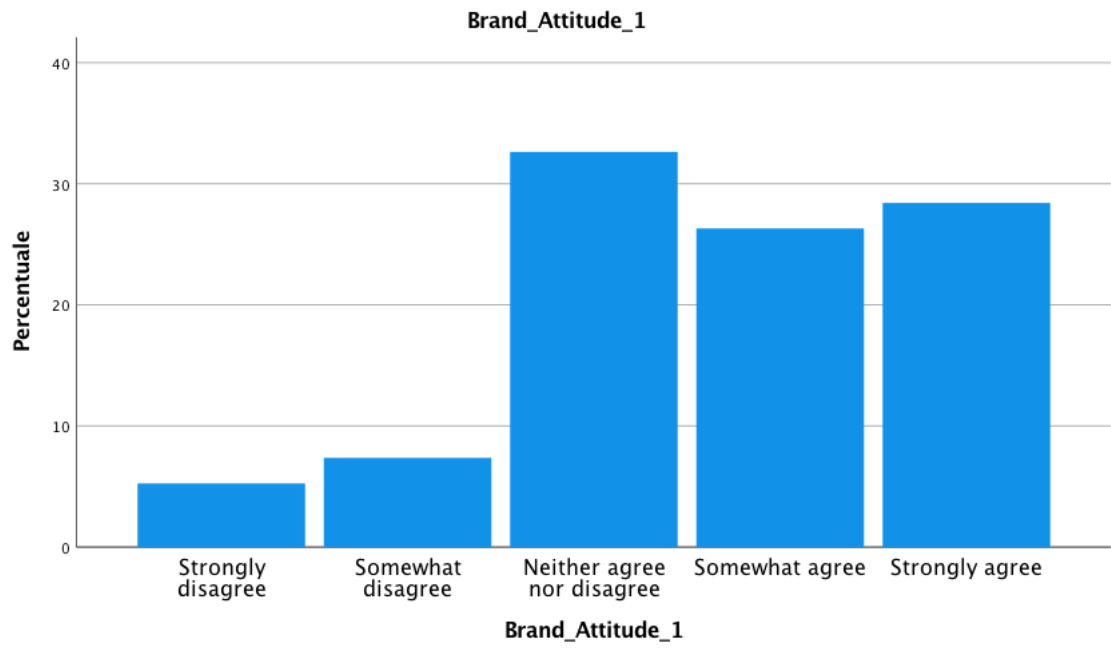
		Frequenz	Percentu	Percentuale	Percentuale
		a	ale	valida	cumulativa
Valid	Strongly disagree	8	8,4	8,4	8,4
o	Somewhat disagree	16	16,8	16,8	25,3
	Neither agree nor disagree	19	20,0	20,0	45,3
	Somewhat agree	19	20,0	20,0	65,3
	Strongly agree	33	34,7	34,7	100,0
	Totale	95	100,0	100,0	

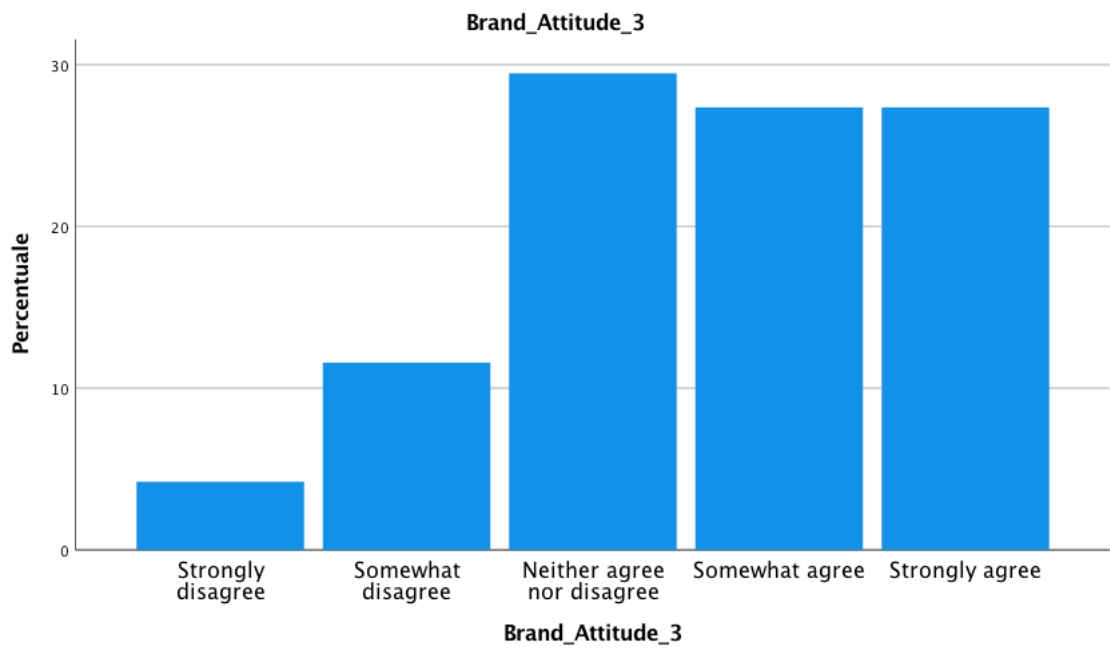
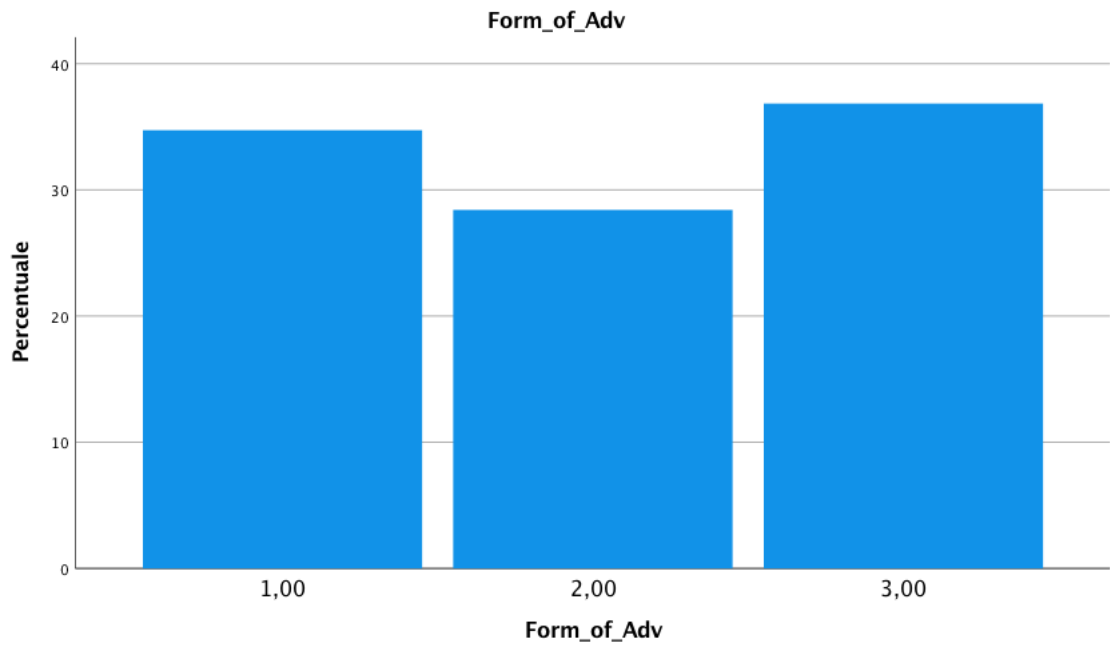
*Purchase\_Intention\_2*

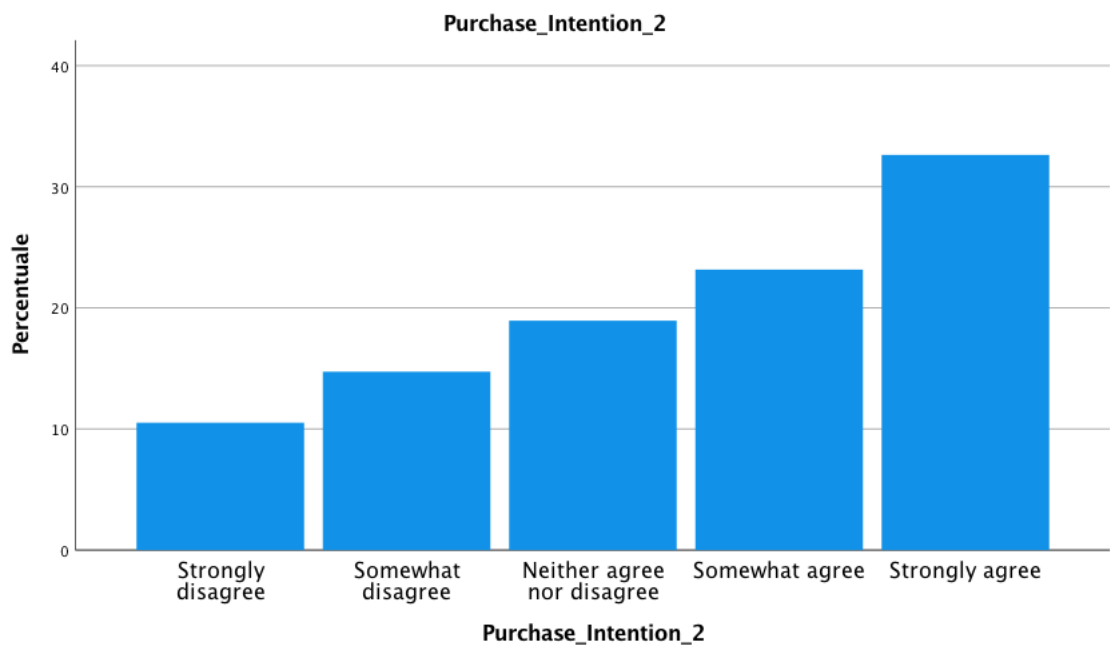
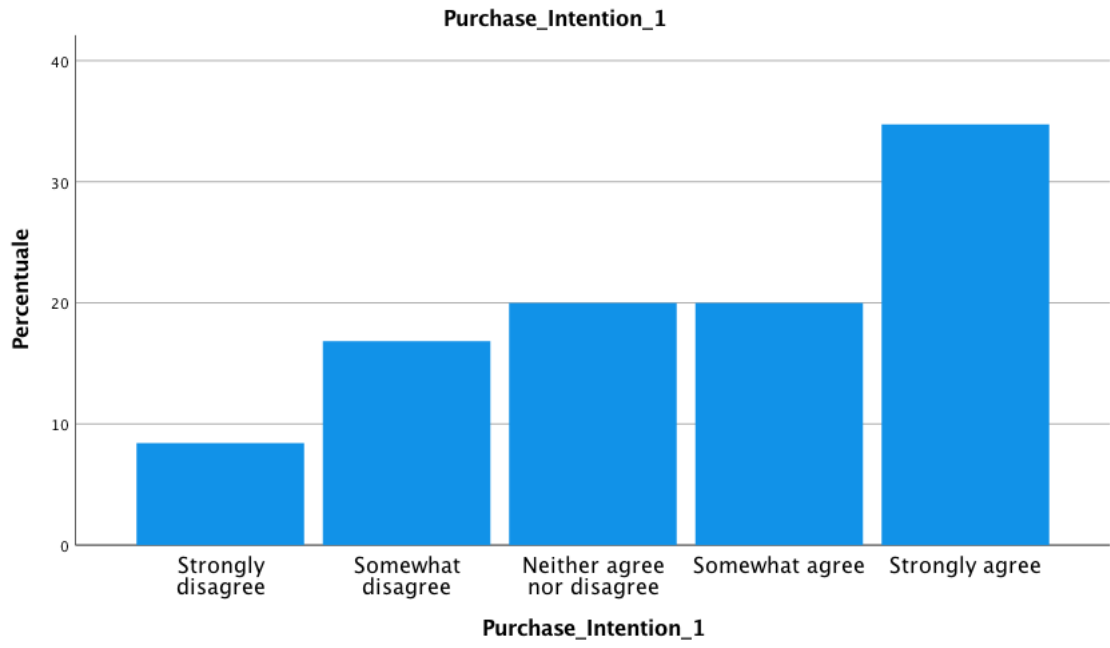
		Frequenz	Percentu	Percentuale	Percentuale
		a	ale	valida	cumulativa
Valid	Strongly disagree	10	10,5	10,5	10,5
o	Somewhat disagree	14	14,7	14,7	25,3
	Neither agree nor disagree	18	18,9	18,9	44,2
	Somewhat agree	22	23,2	23,2	67,4
	Strongly agree	31	32,6	32,6	100,0
	Totale	95	100,0	100,0	

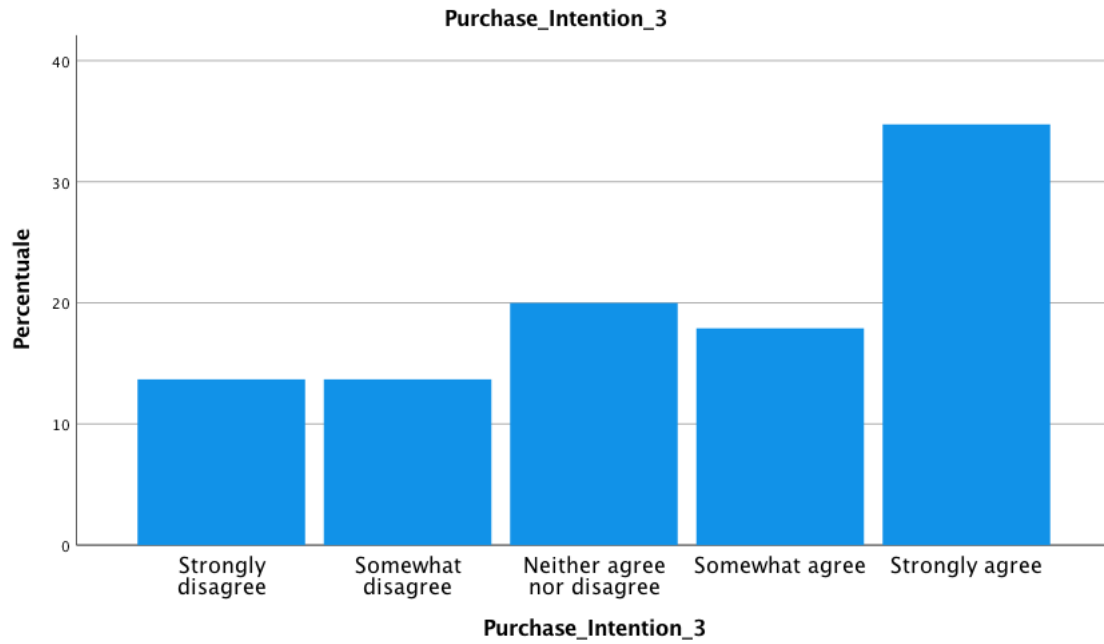
*Purchase\_Intention\_3*

		Frequenz	Percentu	Percentuale	Percentuale
		a	ale	valida	cumulativa
Valid	Strongly disagree	13	13,7	13,7	13,7
o	Somewhat disagree	13	13,7	13,7	27,4
	Neither agree nor disagree	19	20,0	20,0	47,4
	Somewhat agree	17	17,9	17,9	65,3
	Strongly agree	33	34,7	34,7	100,0
	Totale	95	100,0	100,0	









*Statistiche descrittive*

	N	Minimo	Massimo	Media	Deviazione std.
What is your age?	95	1	5	2,34	,724
What is your gender?	95	1	2	1,31	,463
What is your education level?	95	1	5	2,85	,945
Do you consider the previously displayed Advertisement as gaming-related?	95	1	2	1,44	,499
On a scale from 1 (Strongly disagree) to 5 (Strongly Agree) how do you feel about the following statements? - My opinion on the brand sponsored by the streamer is very favourable	95	1	5	3,65	1,128



On a scale from 1 (Strongly disagree) to 5 (Strongly Agree) how do you feel about the following statements? - I think the brand sponsored by the streamer is very useful	95	1	5	3,47	1,245
On a scale from 1 (Strongly disagree) to 5 (Strongly Agree) how do you feel about the following statements? - I think the brand sponsored by the streamer is very good	95	1	5	3,62	1,132
On a scale from 1 (Strongly disagree) to 5 (Strongly Agree) how do you feel about the following statements? - I am likely to purchase the brand sponsored by the streamer	95	1	5	3,56	1,343
On a scale from 1 (Strongly disagree) to 5 (Strongly Agree) how do you feel about the following statements? - I would like to have more information about the brand sponsored by the streamer	95	1	5	3,53	1,359
On a scale from 1 (Strongly disagree) to 5 (Strongly Agree) how do you feel about the following statements? - I am interested in the brand sponsored by the streamer	95	1	5	3,46	1,435
Numero di casi validi (listwise)	95				

## ANOVA

## Descriptives (ANOVA)

*Statistiche descrittive*

## Variabile dipendente: Purchase\_Intention

Form_of_A	Brand_Attitude	Game_Rel	Medio	Deviazione std.	N
1,00	1,00	1,00	1,0000	.	1
		Totale	1,0000	.	1
1,33	,00	1,00	1,5556	,50918	3
		Totale	1,5556	,50918	3
2,00	1,00	1,00	1,8000	,76739	5
		Totale	1,8000	,76739	5
2,33	,00	1,00	2,6667	.	1
		1,00	2,1667	1,17851	2
		Totale	2,3333	,88192	3
2,67	,00	1,00	2,2500	,50000	4
		1,00	3,0000	.	1
		Totale	2,4000	,54772	5
3,00	,00	1,00	2,0556	,64693	6
		1,00	2,5000	,70711	2
		Totale	2,1667	,64242	8
3,33	,00	1,00	2,2222	,69389	3
		1,00	2,0000	.	1
		Totale	2,1667	,57735	4
3,67	,00	1,00	2,8333	,23570	2
		1,00	3,0000	.	1
		Totale	2,8889	,19245	3
4,67	,00	1,00	2,6667	.	1
		Totale	2,6667	.	1
Totale	,00	1,00	2,1833	,60674	20
		1,00	2,1026	,80949	13
		Totale	2,1515	,68258	33
2,00	1,33	,00	3,0000	.	1
		Totale	3,0000	.	1
2,00	,00	1,00	3,3333	.	1
		Totale	3,3333	.	1
2,67	,00	1,00	3,0000	,00000	2
		1,00	3,6667	.	1
		Totale	3,2222	,38490	3

	3,00	,00	3,3333	.	1
		1,00	3,0000	,00000	2
		<b>Totale</b>	<b>3,1111</b>	<b>,19245</b>	<b>3</b>
	3,33	1,00	3,5667	,22498	10
		<b>Totale</b>	<b>3,5667</b>	<b>,22498</b>	<b>10</b>
	3,67	1,00	3,0000	.	1
		<b>Totale</b>	<b>3,0000</b>	<b>.</b>	<b>1</b>
	4,00	,00	3,7778	,38490	3
		1,00	3,0000	.	1
		<b>Totale</b>	<b>3,5833</b>	<b>,50000</b>	<b>4</b>
	4,33	,00	3,8333	,23570	2
		<b>Totale</b>	<b>3,8333</b>	<b>,23570</b>	<b>2</b>
	4,67	,00	4,3333	.	1
		1,00	3,3333	.	1
		<b>Totale</b>	<b>3,8333</b>	<b>,70711</b>	<b>2</b>
	<b>Totale</b>	,00	3,5455	,47779	11
		1,00	3,4167	,31032	16
		<b>Totale</b>	<b>3,4691</b>	<b>,38408</b>	<b>27</b>
3,00	3,00	,00	5,0000	.	1
		<b>Totale</b>	<b>5,0000</b>	<b>.</b>	<b>1</b>
	3,33	1,00	4,6667	.	1
		<b>Totale</b>	<b>4,6667</b>	<b>.</b>	<b>1</b>
	3,67	,00	4,6667	.	1
		1,00	4,3333	.	1
		<b>Totale</b>	<b>4,5000</b>	<b>,23570</b>	<b>2</b>
	4,00	,00	5,0000	,00000	2
		1,00	5,0000	,00000	2
		<b>Totale</b>	<b>5,0000</b>	<b>,00000</b>	<b>4</b>
	4,33	,00	4,8889	,19245	3
		1,00	4,3333	.	1
		<b>Totale</b>	<b>4,7500</b>	<b>,31914</b>	<b>4</b>
	4,67	,00	4,6667	,33333	3
		1,00	4,3333	.	1
		<b>Totale</b>	<b>4,5833</b>	<b>,31914</b>	<b>4</b>
	5,00	,00	4,8889	,21711	12
		1,00	4,9524	,12599	7
		<b>Totale</b>	<b>4,9123</b>	<b>,18732</b>	<b>19</b>
	<b>Totale</b>	,00	4,8636	,22204	22
		1,00	4,7949	,28991	13
		<b>Totale</b>	<b>4,8381</b>	<b>,24749</b>	<b>35</b>
<b>Totale</b>	1,00	1,00	1,0000	.	1

	Totale	1,0000	.	1
1,33	,00	1,9167	,83333	4
	Totale	1,9167	,83333	4
2,00	,00	3,3333	.	1
	1,00	1,8000	,76739	5
	Totale	2,0556	,92896	6
2,33	,00	2,6667	.	1
	1,00	2,1667	1,17851	2
	Totale	2,3333	,88192	3
2,67	,00	2,5000	,54772	6
	1,00	3,3333	,47140	2
	Totale	2,7083	,62836	8
3,00	,00	2,5833	1,20515	8
	1,00	2,7500	,50000	4
	Totale	2,6389	,99958	12
3,33	,00	2,2222	,69389	3
	1,00	3,5278	,61065	12
	Totale	3,2667	,80868	15
3,67	,00	3,4444	1,07152	3
	1,00	3,4444	,76980	3
	Totale	3,4444	,83444	6
4,00	,00	4,2667	,72265	5
	1,00	4,3333	1,15470	3
	Totale	4,2917	,82496	8
4,33	,00	4,4667	,60553	5
	1,00	4,3333	.	1
	Totale	4,4444	,54433	6
4,67	,00	4,2000	,90062	5
	1,00	3,8333	,70711	2
	Totale	4,0952	,80999	7
5,00	,00	4,8889	,21711	12
	1,00	4,9524	,12599	7
	Totale	4,9123	,18732	19
Totale	,00	3,5786	1,28294	53
	1,00	3,4365	1,18365	42
	Totale	3,5158	1,23557	95

Test of Homogeneity of Variances (DV: Purchase Intention)

*Test di Levene di eguaglianza delle varianze dell'errore<sup>a</sup>*

Variabile dipendente: Purchase\_Intention

F	gl1	gl2	Sig.
2,879	38	56	<,001

Verifica l'ipotesi nulla che la varianza dell'errore della variabile dipendente sia uguale tra i gruppi.

a. Disegno: Intercetta + Form\_of\_Adv + Brand\_Attitude + Game\_Rel

ANOVA table (DV: Purchase Intention)

*Test di effetti tra soggetti*

Variabile dipendente: Purchase\_Intention

Origine	Somma dei quadrati di tipo III		Media quadratica	F	Sig.	Eta quadrato parziale	Parametro noncent.	Potenza osservata <sup>b</sup>
	df							
Modello corretto	128,091 <sup>a</sup>	14	9,149	47,490	<,001	,893	664,854	1,000
Intercetta	535,054	1	535,054	2777,185	<,001	,972	2777,185	1,000
Form_of_Adv	29,254	2	14,627	75,920	<,001	,655	151,840	1,000
Brand_Attitude	5,230	11	,475	2,468	,010	,253	27,147	,940
Game_Rel	,054	1	,054	,278	,599	,003	,278	,082
Errore	15,413	80	,193					
Totale	1317,778	95						
Totale corretto	143,504	94						

a. R-quadrato = ,893 (R-quadrato adattato = ,874)

b. Calcolato utilizzando alfa = ,05

Post Hoc Tests (DV: Purchase Intention)

*Confronti multipli*

Variabile dipendente: Purchase\_Intention

LSD

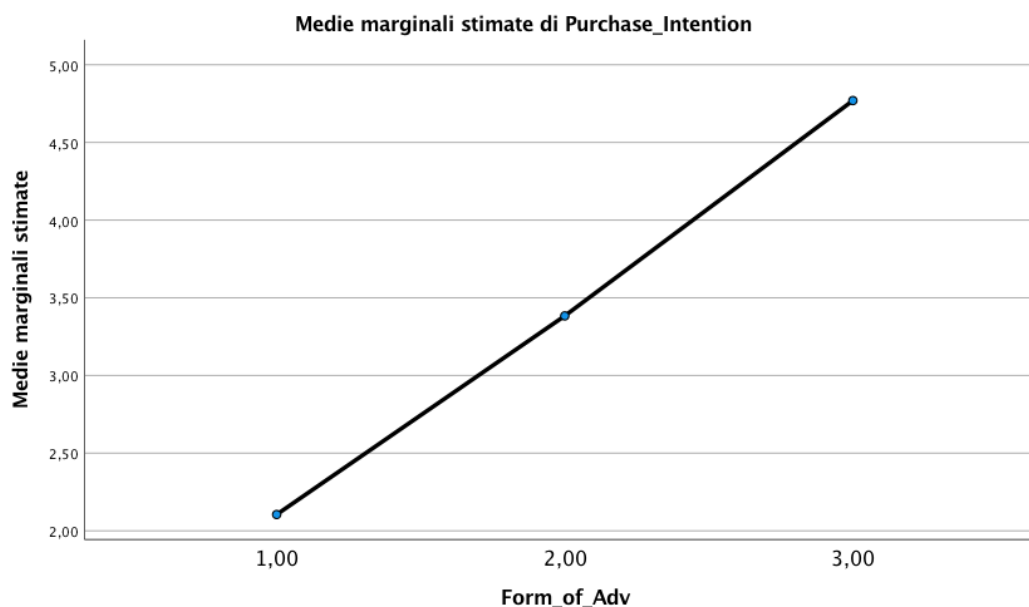
(I) Form_of_Adv	(J) Form_of_Adv	Differenza della media (I-J)	Errore std.	Sig.	Intervallo di confidenza 95%	
					Limite inferiore	Limite superiore
1,00	2,00	-1,3176*	,11390	<,001	-1,5443	-1,0909
	3,00	-2,6866*	,10650	<,001	-2,8985	-2,4746
2,00	1,00	1,3176*	,11390	<,001	1,0909	1,5443
	3,00	-1,3690*	,11243	<,001	-1,5927	-1,1452
3,00	1,00	2,6866*	,10650	<,001	2,4746	2,8985
	2,00	1,3690*	,11243	<,001	1,1452	1,5927

Si basa sulle medie osservate.

Il termine di errore è media quadratica(errore) = ,193.

\*. La differenza della media è significativa al livello ,05.

Mean Plot (DV: Purchase Intention)



Moderation (Gaming Related)

Test of Homogeneity of Variances (DV: Brand Attitude)

*Test di Levene di eguaglianza delle varianze dell'errore<sup>a,b</sup>*

		Statistica di			
		Levene	gl1	gl2	Sig.
Brand_Attitude	Basato sulla media	3,747	5	89	,004
	Basato sulla mediana	1,847	5	89	,112
	Basato sulla mediana e con il grado di libertà adattato	1,847	5	69,496	,115
	Basato sulla media ritagliata	3,811	5	89	,004

Verifica l'ipotesi nulla che la varianza dell'errore della variabile dipendente sia uguale tra i gruppi.

a. Variabile dipendente: Brand\_Attitude

b. Disegno: Intercetta + Form\_of\_Adv + Game\_Rel + Form\_of\_Adv \* Game\_Rel

ANOVA table (DV: Brand Attitude)

*Test di effetti tra soggetti*

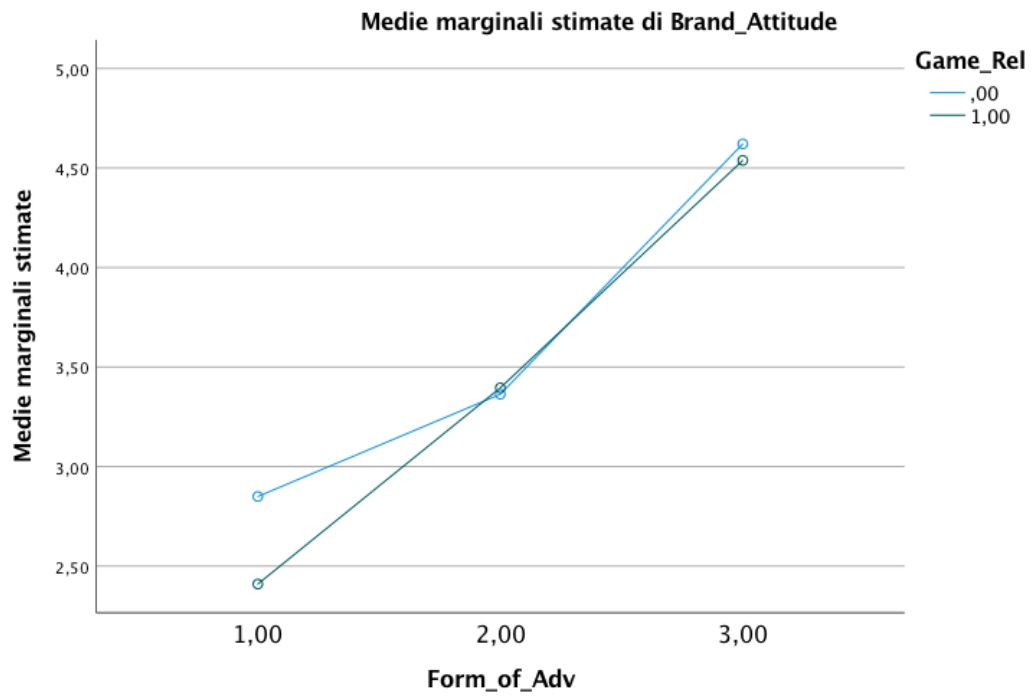
Variabile dipendente: Brand\_Attitude

Origine	Somma	df	Media			Eta	Parametro noncent.	Potenza osservata <sup>b</sup>
	dei quadrati di tipo III		quadratica	F	Sig.			
Modello corretto	65,296 <sup>a</sup>	5	13,059	26,265	<,001	,596	131,323	1,000
Intercetta	1113,872	1	1113,872	2240,205	<,001	,962	2240,205	1,000
Form_of_Adv	62,088	2	31,044	62,435	<,001	,584	124,870	1,000
Game_Rel	,597	1	,597	1,201	,276	,013	1,201	,192
Form_of_Adv * Game_Rel	,902	2	,451	,907	,408	,020	1,813	,202
Errore	44,252	89	,497					
Totale	1328,778	95						
Totale corretto	109,549	94						

a. R-quadrato = ,596 (R-quadrato adattato = ,573)

b. Calcolato utilizzando alfa = ,05

Mean graphs (DV: Brand Attitude)





## Summary

### Introduction

Live-streaming is becoming increasingly popular as a form of internet entertainment in the gaming business, to the point that big tech giants such as Google, Facebook, Amazon and Microsoft have decided to acquire and develop their own live streaming platforms centered around gaming content (El Afi et al., 2021). It is very common for content creators such as youtubers, influencers and streamers to engage in commercial activities in order to monetize their channels and grow their business, may that be in the form of third-party sponsorships, or through active promotion of goods and services produced by the creator. For example, the renowned twitch streamer “Ninja” actively promotes his merchandise in most of his streams by linking his official website, but he was also endorsed by Adidas in 2019 for an official sponsorship (La Gazzetta dello Sport, 2019). The growing gaming industry now includes a sizable number of consumers who enjoy watching others play games, recent years have seen streaming platforms doubling their user base year-on-year, with figures reaching over a hundred million unique monthly users (Sjöblom et al., 2016). The golden standard for game streaming today is Twitch.tv, the biggest streaming platform in the world with around 140 million monthly active users (Mediakix, 2021); and with revenue in the video games segment expected to reach US\$175.10bn in 2022, these numbers are only likely to grow (Statista, 2022). The aim of this research is to gain a deeper understanding of the selling mechanisms that take place on game live streaming platforms such as Twitch.tv. Live selling is an extremely common activity within the twitch community, which may take place through multiple forms (Johnson et al., 2019); this research will tackle sponsorship and merchandise advertisement from streamers on Twitch. Understanding how viewership’s behaviour is influenced by different commercial

activities in live streams can provide useful managerial implications for streamers and companies alike, since these two sides of the market are invested in these activities on different levels. The focus of this paper's analysis will more specifically shift towards game live streaming on the Twitch.tv platform and try to gain a clear understanding of how content creators' actions impact their audience's likelihood to engage in commercial activities on their channel. The starting point of the analysis will be viewers' **purchase intention**; what this paper sets out to analyze are what form of advertising most influences consumer's willingness to buy a product during a live Twitch stream.

### **Literature Review**

It is important to stress the importance of live streaming as a medium that has contributed significant changes in the way people consume media: reducing the gap between individual content creators and traditional media production companies (Sjöblom et al., 2019). Thanks to the merging relationship between media consumption and production, viewers have accustomed to a new type of "celebrity", one that is decentralized and focused on smaller audiences; the result is an overall increase in digital content creation both social and passive (Sjöblom et al., 2019).

Live commerce can be described as 'the delivery of e-commerce activities and transactions via a live streaming platform' (Xu et al., 2020). When talking about live commerce we must identify some key elements, in particular the presence of a live stream space (platform), technology and infrastructure in order to provide an environment that delivers live interaction, social activities and commerce. Live commerce can also be defined as a subset of e-commerce, which is embedded with social interaction (Cai et al., 2019). Johnson and Woodcock (2019) identify a wide variety of monetization strategies in live broadcasts, namely: *Subscribing*;

*Donating/Cheering; Advertising; Sponsorships; Competitions/Targets; Unpredictable rewards; and Channel games.* For the purpose of this research the focus will shift on pure selling mechanisms such as *Advertising* and *Sponsorships*; advertising happens in the classic form of ad segments at various points in the live stream, streamers can run them while they take a break or go to the bathroom, or they can randomly appear at certain points during live streams with a banner that entices viewers to stay on the stream in order to support the streamer (Twitch, 2022). The other form of monetization this paper will focus on is *Sponsorships*. This method of advertising builds on the blocks of already known practices in media and sports, but applied to live game broadcasting, it is even more prevalent in the context of esports, where large crowds of fans gather to see their favorite gamers compete in online matches (Deng et al., 2015). Purchase intention can measure the possibility that a consumer will buy a certain product; the higher the purchase intention is, the higher the consumer's willingness to purchase a product (Dodds et al., 1991; Schiffman, et al., 2000).

Purchase intention denotes that consumers will make purchase decisions based on previous experience and preferences, as well as rely on the external environment to gather information in order to consider alternatives and make those decisions (Dodds et al., 1991; Schiffman, et al., 2000; Yang, 2009). Another topic of interest for the purpose of this research is brand attitude; according to Huhn et al., an attitude is an assessment, through a continuum, with positive and negative characteristics acting as anchors, that an individual makes through an association of knowledge (Huhn et al., 2018). A consumer's attitude concerning whether he/she has gathered enough information varies from strongly positive to strongly negative (Nolder & Kadous, 2017). Attitudes already formed by individuals may, however, act as mediators of behavior, influencing their purchase intention (Cheung & Thadani, 2012; Rocha, Ferreira, & Silva, 2014).

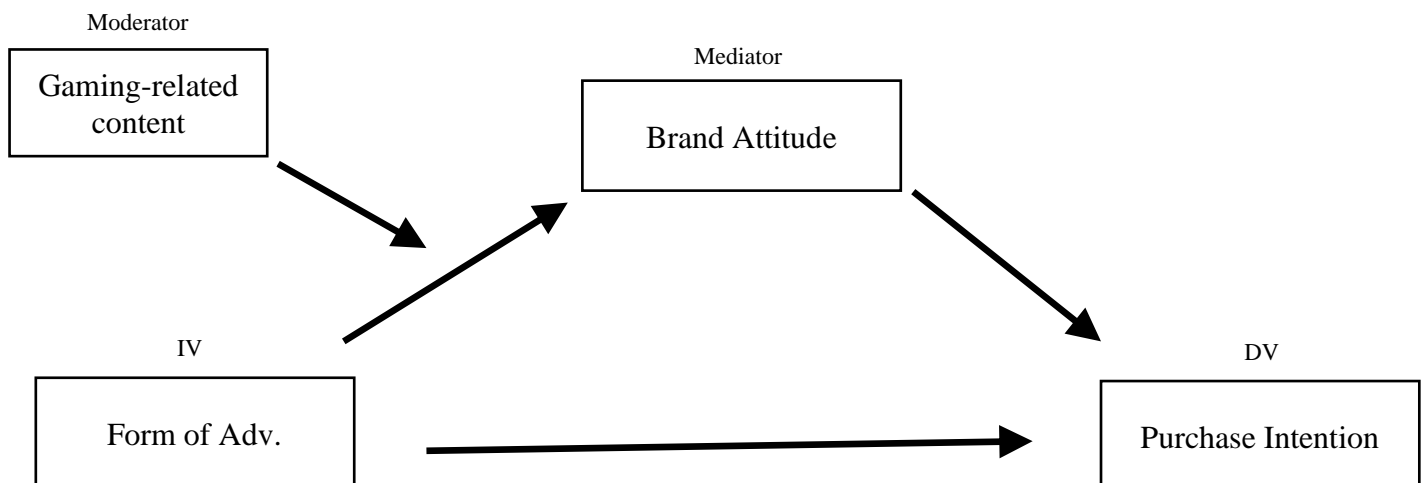
## Hypotheses and research model

*H1: Streamer merch ads have a more significant influence on viewer Purchase intention than Third party sponsor ads.*

*H2: Brand attitude represents a valid mediator in the interaction process between Form of advertising and purchase intention.*

*H3: Streamer merch ads have a stronger impact on brand attitude than Third party sponsor ads.*

*H4: Gaming related advertising has a greater positive impact than non-gaming related advertising on the relation between Form of adv and Brand Attitude*



## Survey data and analysis

This chapter begins with a summary of the study's research methodology, outlining how the analysis will be conducted. The description of the independent, dependent, mediator, and moderator variables, their relationships, and the survey scales used afterward. The approach used to acquire the data and the analysis that followed will then be discussed.

The results of the latter will determine if the developed hypotheses are true or not.

Finally, suggestions for future research will be explored, as well as its limitations.

Starting with a descriptive analysis, a survey will be undertaken in this study to analyze

the conceptual model that was developed. Next, a Cronbach alpha test will be carried out to confirm the validity of the scales utilized for the various variables. Finally, in order to determine whether or not the hypotheses may be rejected or not, the study of moderation and mediation of the suggested factors will be conducted.

The total survey participants amounted to 105, with 95 valid responses after data manipulation. A total of 10 questions were asked: the first questions tested the gaming related content variable, then three questions to assess the brand attitude score, and three questions to evaluate the purchase intention score, followed by 3 questions related to demographics. Participants were randomly assigned one of the three experimental conditions: three screenshots of a livestream from the influencer “Ninja”, one containing a sponsored non-gaming related advertisement, one containing a sponsored gaming related advertisement, and one advertisement containing “Ninja” proprietary merchandise. Subsequently the moderator (binary categorical variable) was tested, asking participants if they considered the previously shown ad as gaming related. The next step was to ask recipients for an evaluation of brand attitude (mediator, numerical variable) and purchase intention (dependent, numerical variable) using a three-item five-point Likert scale (1=strongly disagree, 5=strongly agree) adapted from Singh and Banerjee (2018) in a study about exploring the influence of Celebrity Credibility on Brand Attitude, Advertisement Attitude and Purchase Intention. Finally, participants were asked for demographics, in particular age, gender, and education level.

### **Discussion and Hypothesis testing**

Now that the multiple analyses have been carried out, the hypotheses formulated at the beginning of this dissertation will be either rejected or not rejected.

The first hypothesis stated that “Streamer merch ads have a more significant influence on viewer Purchase intention than Third party sponsor ads”. The first thing that can be

said regarding this statement is that all scales' average scores appeared to be higher for streamer merchandise, immediately followed by gaming sponsor and non-gaming sponsor. Furthermore, the regression analysis suggested that streamer merchandise had a significantly higher impact on purchase intention compared to the other two conditions.

*H1: Streamer merch ads have a more significant influence on viewer Purchase intention than Third party sponsor ads. → NOT REJECTED*

The second hypothesis stated that “Brand attitude represents a valid mediator in the interaction process between form of advertising and purchase intention”. When looking at the mediation regression analysis we can observe that there is indeed a significant positive mediation of brand attitude in the relation between the form of advertising and purchase intention. The significance of the mediation is given by the absence of a zero value in the confidence interval of the indirect effect; furthermore, since the indirect and direct effects and have the same sign the mediation is complimentary.

*H2: Brand attitude represents a valid mediator in the interaction process between Form of advertising and purchase intention. → NOT REJECTED*

The third hypothesis stated that “Streamer merch ads have a stronger impact on brand attitude than third party sponsor ads”. As previously stated, we have seen that all scales' average scores appeared to be higher for streamer merchandise, immediately followed by gaming sponsor and non-gaming sponsor. Furthermore, the regression analysis suggested that streamer merchandise had a significantly higher impact on brand attitude compared to the other two conditions.

*H3: Streamer merch ads have a stronger impact on brand attitude than third party sponsor ads → NOT REJECTED*

The fourth and final hypothesis stated that “Gaming related advertising has a greater positive impact than non-gaming related advertising on the relation between Form of

adv and Brand Attitude”. We have seen from the ANOVA table in the analysis that the moderation effect of gaming related content on the relation between form of advertising and brand attitude is not statistically significant, meaning that whether the advertised content is gaming related or not does not have an impact on the relation between independent and mediator variable.

*H4: Gaming related advertising has a greater positive impact than non-gaming related advertising on the relation between Form of adv and Brand Attitude → REJECTED*

## **Conclusions**

Ultimately, the goal of this thesis was to gain an insight on the effect of the attitude regarding different forms of advertising in live commerce on the purchase intention of Twitch users; given the affinity that the Twitch platform has with gaming, it was also tested whether gaming related content could have a moderating effect on the relationship between the different forms of advertising and consumers’ brand attitude. In particular, through the creation of a questionnaire, the objective was to target a very specific type of respondent that could provide coherent and significant results given the focalized nature of the research. It has emerged from these results that there is indeed a relationship between different advertising forms and their ability to impact viewer’s purchase intention differently. In particular, purchase intention is higher when the advertised content is directly associated with the streamer. Streamer merchandise is the experimental condition that manifested the absolute highest effect on purchase intention; furthermore, it has been concluded that brand attitude mediates the relationship between these variables in a positive way. Of the four hypothesis that were formulated, only one was rejected, bringing the analysis to establish that gaming related content in live advertising is not significantly relevant as to moderate the relation between the advertisement and the attitude of the viewers towards the advertised brand.

This conclusion was the least expected among the proposed hypotheses, as the link between Twitch.tv and the gaming community along with the extant literature would have suggested otherwise, but it nevertheless contributes some insight into a constantly evolving market with untapped marketing possibilities. This project set out to dive deeper into the selling mechanisms taking place on the most popular streaming platform in the world which are common to many other ones, successfully demonstrating that different advertising forms of live commerce make a significant difference in consumer's willingness to buy a product. By relying on fundamental theories in extant literature together with previous research on the underlying motives characterizing live stream viewership, this work has expanded on these topics while adding useful insights for company managers who wish to venture into live commerce and for influencers trying to promote and monetize their brands. The study conducted in this dissertation certainly has the possibility to pave the way for future analyses on a wider variety of commercial interactions in the live stream industry, as well as gaining a deeper understanding of what customer segments can be targeted through these platforms. Data regarding the live commerce market in Asia is very promising, and this wave is very quickly expanding to the western market; it is essential for marketers to explore the new possibilities given by this trend in order to stay on the cutting edge of modern-day marketing strategies. This research marks a small step towards what may well become an extensively researched topic both academically and commercially, by raising awareness on what is a fast-growing industry and providing some preliminary insight on more specific content (such as gaming) and a select platform (such as Twitch.tv). Overall, this dissertation has proven successful results in demonstrating the different relations between different forms of advertising in Twitch live streams and consumers' willingness to buy, as well as the underlying mediation of brand attitude in this relationship.



