


Video games as an advertising media: A comparative analysis between Portuguese and Spanish university students

Los videojuegos como soporte publicitario. Análisis comparativo entre estudiantes universitarios en Portugal y España




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Abstract:

Changes in leisure consumption are causing transformations in the relationships between young people and brands. A reflection of this is found in video games, whose predominant user profile is that of young people between 18 and 30 years old. They invest more and more time in digital universes: they play, socialize and even buy, and income from the video game sector has increased year after year in Spain and in the world, surpassing those generated jointly by cinema and music. A review of previous literature indicates the relevance as an object of study of video games that are used as advertising formats, especially from the user's perspective. However, they are not recent and focus primarily on childhood. Thus, this research is based on the main objective of determining, from a multicultural perspective, the profile of the university student gamer in Spain and Portugal. Two specific purposes are derived from it: to evaluate the user's relationship with the integrated brand and to compare perceptions based on cultural factors. To achieve them, a survey is carried out on 603 university students with variables based on consumption habits, brand identification, advertising memory and resulting relationship with the integrated brands. The results obtained show differences in intensity and frequency of play. In conclusion, a favorable, although conditional, relationship is observed between the integrated brands and the players. For their part, Portuguese university students show greater reluctance to the promotional space of the video game, conditioning their transfer to the effective integration of the brand in the narrative of the game, and to it not being the protagonist of it.

Keywords:

Videogames; advertising; youth; university; e-sports.

Resumen:

Los cambios en el consumo de ocio están provocando transformaciones en las relaciones entre los jóvenes y las marcas. Un reflejo de ello se halla en los videojuegos, cuyo perfil de usuario predominante es el de jóvenes de entre 18 y 30 años. Cada vez invierten más tiempo en los universos digitales: juegan, socializan e incluso compran, y los ingresos del sector de los videojuegos se han incrementado año tras año en España y en el mundo, superando a los generados conjuntamente por el cine y la música. Una revisión de la literatura previa indica la relevancia como objeto de estudio de los videojuegos que se emplean como formatos publicitarios, sobre todo desde la perspectiva del usuario. Sin embargo, no son recientes y se centran eminentemente en la infancia. Así, esta investigación parte del objetivo principal de determinar, desde una perspectiva multicultural, el perfil del estudiante universitario gamer en España y Portugal. De él se derivan dos fines específicos: evaluar la relación del usuario con la marca integrada y comparar las percepciones atendiendo a factores culturales. Para alcanzarlos, se realiza una encuesta a 603 estudiantes universitarios con variables basadas en hábitos de consumo, identificación de marcas, recuerdo publicitario y relación resultante con las marcas integradas. Los resultados obtenidos evidencian diferencias en cuanto a intensidad y frecuencia de juego. Como conclusión, se observa una relación favorable, aunque condicionada, entre las marcas integradas y los jugadores. Por su parte, los universitarios portugueses muestran mayor reticencia al espacio promocional del videojuego, condicionando su cesión a la integración efectiva de la marca en la narrativa del juego, y a que no sea protagonista de la misma.

Palabras clave:

Videogames; publicidad; jóvenes; universidad; e-sports.

1. Introduction

Cinema, television, and music are no longer the only dominant forms of entertainment for teenagers. Screens are more present than ever in their daily lives, and new formats such as video games have emerged in step with technological advancements. By 2023, this sector is projected to lead leisure industry revenues not only in Spain but worldwide (AEVI, 2024), surpassing the combined figures of the cinema and music industries. Furthermore, with the rise of metaverses, the dynamics of leisure consumption among young people are being redefined (Mainer-Blanco, 2020; Gómez, 2019).

In this sense, the video games industry in Spain has grown annually since 2018, with a turnover increase of 15.8% in 2018; 13% in 2019, 12% in 2022 and 16.3% in 2023, when the market reached revenues of more than €2,339 million (AEVI, 2024). In terms of the actual audience, 15-24 year olds represents the demographic group which consumes them the most. Considering gender, a trend to equity has been detected (51% male and 49% female) (AEVI, 2024).

However, video games are much more than a powerful industry. They have had a significant impact on other sectors, such as journalism, fostering a substantial market for specialized publications and media outlets. In this regard, video games have become cultural assets, an additional medium for personal expression, particularly among young people, who often use them to represent themselves. Brands have taken note of this expressive channel, recognizing in it an interactive means of engaging audiences that are often indifferent to traditional, passive forms of media consumption. Moreover, video games are inherently transnational and transcultural in nature (AEVI, 2024).

Thus, this paper proposes a cross-cultural comparative study with the main objective of determining the profile of university student gamers in Spain and Portugal and their relationship with brands and advertising. Two specific objectives (SOs) result from this general aim:

SO1: Evaluate the relationship of university gamers with brands embedded in video games through advergaming, in-game advertising and ad around game.

SO2: Compare the perception of Spanish and Portuguese student gamers on the use of video games as advertising formats, assessing the influence of cultural elements.

1.1. Online games as a business model and the expansion of e-sports

Given that video games are the most consumed entertainment genre, the digital transition of everyday activities, such as sports, is particularly noteworthy. Gamers have found in eSports a new way to compete virtually, even if physical exertion has been replaced by time in a gaming chair. In 2020, the eSports sector generated \$1.1 billion in global revenue, reflecting a year-on-year growth of 15.7%. Rather than harming the industry, the pandemic reinforced it, drawing 495 million players and viewers to eSports and online gaming (AEVI, 2023c). Globally, the eSports market was valued at \$1.44 billion in 2023 and is projected to reach \$6.63 billion by 2032 (Skyquest, 2024). Its audience is expected to reach 580 million people in 2024, an increase of 24.7% compared to 2023 (Europa Press, 2024). This exponential growth has not gone unnoticed by brands, which increasingly view online gaming and eSports as fertile ground for commercial development. In Spain alone, the eSports industry generated approximately 50 million euros in 2024, with 30 million coming from sponsorships and 2 million from ticket sales (Statista, 2025).

These figures result in the professionalization of the industry, which already counted 191 million gamers in 2018 (Cunningham et al., 2018). Children can now say that they will grow up to be gamers and, far from being unfeasible, it is now a much more widespread activity than traditional professional sport (Keiper et al., 2017) and the International Olympic Committee is considering including e-sports as a sport (Graham, 2017). Institutional support for this type of competition also comes from the European Commission, which has recognized its influence on the transmission of positive values such as fair play, non-discrimination, social inclusion and gender equality (European Commission, 2022).

The association of these video games with beneficial outcomes results in the recruitment of more players, who begin to see video games as tools for socialization rather than isolation. Specially young people, as the predominant profile of e-sports players is between 18 and 30 years old (AEVI, 2023c).

1.2. Video games as advertising channels

Growing revenues, the exponential expansion of the video game industry as a form of entertainment, and the existence of a well-defined target audience are among the key factors that have led brands to increasingly invest in video games as promotional channels. In 2020, for example, 74.8% of global e-sports revenues came from sponsorships and media rights, an increase of 17.2% compared to the previous year (Newzoo, 2021).

Video games offer a highly immersive means of engaging audiences, allowing not only brand integration but also direct interaction with users. In this context, three main advertising formats stand out:

- a. Advergames, which are games created and financed by brands to convey an interactive and explicitly commercial message.
- b. In-game advertising, which is integrated into the narrative or environment of an existing game that was not initially designed for promotional purposes; and
- c. Ad-around-game advertising, which is displayed in peripheral spaces outside the game's core narrative (João & Las Casas, 2023; Cañete & De La Hera, 2023; López & Arbaiza, 2023).

Each of these formats presents specific advantages and limitations from an advertising standpoint. Advergames offer the greatest potential for narrative alignment, as they are fully funded and shaped by the brand, meaning all aspects of the game are crafted to serve its messaging. However, their exclusively commercial nature often results in more limited development budgets compared to mainstream titles.

In-game advertising, by contrast, is incorporated into pre-existing commercial games that are not financed by the brand. This limits the brand's control over narrative elements, yet these ads benefit from wider distribution, offering greater reach and visibility than advergames.

Ad-around-game advertising represents the least immersive format. These are conventional ad placements that surround but do not penetrate the gameplay experience. Consequently, the brand lacks a meaningful presence within the game's narrative. Their main advantage lies in their lower cost, although this comes at the expense of user engagement and narrative integration.

Academic literature has long reflected the relevance of video games as advertising tools. Studies over the years have explored various dimensions, such as the influence of video games on player behavior (Molesworth, 2006), perceptions of advergames and in-game advertising (Nelson et al., 2004; Hernández et al., 2004; Winkler & Buckner, 2006), advertising recall (Nelson, 2002; Grigorovici & Constantin, 2004; Schneider & Cornwell, 2005; Yang et al., 2006), and the impact of advertising on brand-player relationships (Grigorovici & Constantin, 2004; Chaney et al., 2004; Moore, 2006; Mallinckrodt & Mizerski, 2007). While audience-focused research is prevalent, much of it is dated and tends not to explore the distinct typologies of video game advertising in depth (Abbasi et al., 2021).

In light of these insights, the authors consider necessary to revisit the object of study in the context of recent technological developments, such as the expansion of metaverses and the rise of digital advertising, which are significantly transforming the relationship between brands and audiences (Bonales-Daimiel et al., 2022; Martín & Slade, 2023; Bonales-Daimiel et al., 2024; Moreno-Albarracín, 2024).

Given that the primary audience for video games is predominantly young, it is unsurprising that several studies have examined their effects on academic performance (Farrel et al., 2015; Ibáñez et al., 2020). However, there remains a significant gap in the literature regarding the profile of student gamers and their relationship with video game advertising. Previous research, such as that by Feijoo et al. (2022), has shown that children aged 10 to 14 are particularly exposed to advergame formats during gameplay. Similarly, Hussain et al. (2022) emphasize how the credibility, personalization, and visual appeal of in-game advertising shape users' perceived value of these ads. Nevertheless, it is still unclear whether these findings extend to university students or how this demographic engages with brands integrated into video games.

This study seeks to address these gaps by exploring the relationship between brands and university students, focusing on defining the gamer profile and evaluating their perception of advertising formats embedded in the games they regularly consume. Building upon the work of Ibáñez et al. (2020), the research examines the same population group, university students, within two distinct cultural contexts: Spain and Portugal. The aim is to assess how cultural factors influence attitudes and responses toward in-game advertising.

2. Method

2.1. Data Collection Instrument

A survey was conducted as the main research method, considering that the focus of the research is related to the demand approach. Undoubtedly, in this circumstance it is one of the most widely used research techniques in the field of Social Sciences. The instrument was developed ad hoc for the object of study. Before its development, previous similar studies and surveys were reviewed, as well as validation scales related to the study object (López Becerra, 2012; Núñez-Barriopedro et al., 2020; Díaz López et al., 2022; Lloret Irlés et al., 2018; González-Vázquez and Igartua, 2018; López Fernández, et al., 2019).

The structure of the questionnaire includes specific sections with classification data (gender and age), the general use of video games (length of use, frequency, session time, genres, platforms of use, modes and budget) and advertising development possibilities (advergames, ingame advertising and ad around game). Links are provided in Spanish¹ and Portuguese².

1 https://docs.google.com/forms/d/18E-wyuNLxGeiK7fWzkSeeFrynS7kN04gUpIT0MCXeaY/viewform?edit_requested=true

2 https://docs.google.com/forms/d/1R9_3ISXzah3dB5Muy698PRZ-8LCKHmirKIs-H7Xnnhc/viewform?edit_requested=true

2.2. Participants

The sample was integrated by 603 participants. Consequently, a margin of error of 4.07% was assumed, considering a confidence interval of 95.5% in the worst case ($p-q=0.5$).

Interviewees were evenly distributed by gender (male 49.4%, female 49.3% and prefer not to say 1.3%), with ages associated to the theoretical university period ($M= 20.26$ years, $Dt= 3.46$). Only 15 participants were outside of the theoretical age range of the study (18-24 years). Regarding their location, 299 live in Spain and 304 in Portugal.

Also, considering the criteria of the Spanish Video Games Association -AEVI- (2023), 81.3% of the total sample elements considered themselves to be gamers, and 54.1% of the total sample declared themselves to be regular consumers of video games or hard players.

2.3. Design and Procedure

Specific, anonymous, self-administered questionnaires were distributed among a sample of young students from the Universities of Cádiz, Complutense University of Madrid, European University Miguel de Cervantes (Valladolid) and Universidade do Algarve (Faro, Portugal). They were all chosen for convenience, so the results must be considered exploratory in any case. The surveys were completed using a QR code that linked to the surveys, using the respondents' mobile devices.

The survey was posted online through a Google Form. Beforehand, participants were provided with an information sheet with the research objectives, details of their participation, and an informed consent form to be signed before the start of the survey.

It was decided to use quota sampling with a purposive final choice of sample elements. Although it is a non-probabilistic choice, this option offers an adequate compromise between reliability and cost (Reales Chacón et al., 2022).

The interviewers followed an established protocol that included, among others, a preliminary survey testing, which was carried out in Cadiz with 50 people to detect and correct errors in the survey, including typos and comprehension difficulties.

In addition, three sessions with enumerators were scheduled to homogenize the data collection process and reduce bias. The actual fieldwork was conducted during the months of January and February 2024.

3. Results

Earlier, in accordance with the data provided by the AEVI (2023), it was noted that 81.3% of participants declared themselves to be gamers. Delving into the question, it should be pointed that there exist relevant differences depending on the country of origin, since 73.5% of the Spanish and 89.3% of the Portuguese stated that they were gamers. In other words, Portuguese students declared themselves to be gamers to a greater extent than Spanish, and this difference was statistically significant (Sig. $X^2= .000$ and Contingency Coef. = .198). Delving into this insight, it is observed that this difference could be related to the female gender presence, given that the percentage of Spanish non-gamblers (40.9%) is almost double that of Portuguese non-gamblers (22.1%).

When considering the length of time respondents have been playing video games, the analysis becomes more comprehensive. As shown in the table below, both groups, more markedly in the case of Portugal, display a wide range of gaming experience, with the majority concentrated in the 10 to 20-year range. A significant proportion also falls within the 5 to 10-year range, indicating consistent long-term engagement with video games. The differences observed between the two countries are statistically significant (Chi-square Sig. = .000; Contingency Coefficient = .216), reinforcing the relevance of gaming experience as a variable in understanding user perceptions.

Continuing the analysis, gender appears to be a relevant differentiating factor between countries. In particular, the male segment shows a more significant variation: among Spanish male respondents, 40.5% report between 5 and 10 years of gaming experience, while 51.1% report between 10 and 20 years. In contrast, Portuguese male respondents present a different distribution, with only 20% in the 5 to 10-year range and a significantly higher proportion, 70%, reporting between 10 and 20 years of experience. These findings suggest that Portuguese male gamers, on average, have a longer gaming history compared to their Spanish counterparts.

Table 1. Contingency table. Length of gaming experience by country

Country of residence	¿ How many years have you been playing video games?	The gender you identify with			Total
		Male	Female	I prefer not to say	
Spain	1 year or less	2,30%	9,10%		5,20%
	Between 1 and 3 years	3,10%	11,10%		6,40%
	Between 3 and 5 years		6,10%		2,60%
	Between 5 and 10 years	40,50%	34,30%	66,70%	38,20%
	Between 10 and 20 years	51,10%	38,40%	33,30%	45,50%
	More than 20 years	3,10%	1,00%		2,10%
	Total	100,00%	100,00%	100,00%	100,00%
Portugal	1 year or less		8,30%		3,60%
	Between 1 and 3 years		8,30%		3,60%
	Between 3 and 5 years		13,20%		5,80%
	Between 5 and 10 years	20,00%	25,60%		22,10%

	Between 10 and 20 years	70,00%	44,60%	100,00%	59,40%
	More than 20 years	10,00%			5,40%
	Total	100,00%	100,00%	100,00%	100,00%

Source: own elaboration

Thus, considering the differences noted above, it can be observed that both Spanish and Portuguese university students report having played video games for a significant portion of their lives. This suggests that video games are a culturally integrated product for this demographic and that they are highly familiar with this form of audiovisual expression.

The self-identification as gamers, combined with their long-standing engagement, can be further contextualized by examining their frequency of play and the average duration of each gaming session. These indicators offer valuable insights into the depth of their connection with this audiovisual medium.

Regarding the first element—frequency of play—a notable duality emerges in both samples, more pronounced in the Portuguese group, between those who play very frequently (daily) and those who play infrequently (monthly) (Sig. $X^2 = .000$; Contingency Coefficient = .150). In contrast, longer gaming sessions are predominantly reported among male participants in both countries. Detailed data can be found in the table below.

Table 2. Contingency table. Gaming frequency and country

Contry of residence	How much time do you estimate you spend on average playing video games each time you play?	The gender you identify with			Total
		Male	Female	I prefer not to say	
Spain	Up to 30 minutes	19,80%	33,30%	33,30%	25,80%
	From 30 minutes to 1 h	17,60%	23,20%	66,70%	20,60%
	From 1 to 2 h	42,70%	25,30%		34,80%
	Between 2 to 3 h	14,50%	11,10%		12,90%
	Between 3 to 4 h	5,30%	5,10%		5,20%
	More than 4 h		2,00%		0,90%
	Total	100,00%	100,00%	100,00%	100,00%
Portugal	Up to 30 minutes	20,00%	39,70%		28,50%
	From 30 minutes to 1 h		28,60%	100,00%	14,60%
	From 1 to 2 h	20,00%	23,80%		21,40%

	Between 2 to 3 h	30,00%	4,80%		18,10%
	Between 3 to 4 h		3,20%		1,40%
	More than 4 h	30,00%			16,00%
	Total		100,00%	100,00%	100,00%

Source: own elaboration

While a certain level of consensus regarding session duration, the study reveals a clear preference for short gaming sessions, lasting less than two hours, in both samples (Sig. $X^2 = ,000$ and Contingency Coef. = ,301).

Table 3. Contingency table of playing time and country

How much time do you estimate you spend on average playing video games each time you play?	Country of residence		Total
	Spain	Portugal	
Up to 30 minutes	25,80%	28,50%	27,20%
From 30 minutes to 1 h	20,60%	14,60%	17,30%
From 1 to 2 h	34,80%	21,40%	27,40%
Between 2 to 3 h	12,90%	18,10%	15,80%
Between 3 to 4 h	5,20%	1,40%	3,10%
More than 4 h	0,90%	16,00%	9,10%
Total	100,00%	100,00%	100,00%

Source: own elaboration

Considering this preliminary portrait of young Spanish and Portuguese university students, the next questions to consider is related to the annual budget allocated to video games, and their gaming mode. The findings reflect a predominant trend toward playing free-to-play video games (51.6% of the total sample, 52.8% of Spaniards and 50.5% of Portuguese students) (Sig. $X^2 = ,000$ and Contingency Coef. = ,222).

Despite of this general trend, it should also be noted that 37.1% of Spanish and 40.8% of Portuguese men report having an annual budget for video games of up to 120 euros (this means the purchase of 2 AAA games or more than 2 AA or indie games). Aligned with this insight, males report higher annual spending on video games than females in both countries (Table 4).

Table 4. Contingency table of budget by gender and country

Country of residence	How much money do you think you spend per year on video games?	The gender you identify with			Total
		Male	Female	I prefer not to say	
Spain	I don't buy videogames / I always play free games	38,20%	70,70%	100,00%	52,80%
	Less than 20 euros	14,50%	11,10%		12,90%
	Between 21 and 60	19,80%	7,10%		14,20%
	Between 61 and 120	15,30%	8,10%		12,00%
	Between 121 and 200	6,90%	2,00%		4,70%
	More than 200	5,30%	1,00%		3,40%
	Total	100,00%	100,00%	100,00%	100,00%
Portugal	I don't buy videogames / I always play free games	20,00%	88,90%		50,50%
	Less than 20 euros	20,00%	11,10%		15,70%
	Between 21 and 60	30,00%			16,00%
	Between 61 and 120	10,00%		100,00%	7,10%
	Between 121 and 200	20,00%			10,70%
	More than 200	100,00%	100,00%	100,00%	100,00%

Source: own elaboration

The analysis of their gaming mode points out a remarkable divergence of views. Although the highest percentage is for solo-gaming, the percentage for online gaming with friends is also notable. In this case, the data are homogeneous by country (Sig. $X^2=,078$ and Contingency Coef. = ,115) but not by gender (Table 5): while males opt for online gaming with their friends, female prefer solo-gaming.

Table 5. Contingency table of mode of play by gender and country

Country of residence	Do you prefer to play alone or in other ways?	The gender you identify with			Total
		Male	Female	I prefer not to say	
España	Alone	32,00%	59,60%	66,70%	44,30%
	With friends in the same place	14,80%	22,20%		17,80%
	With friends online	50,00%	15,20%	33,30%	34,80%
	With strangers online	3,10%	3,00%		3,00%
	Total	100,00%	100,00%	100,00%	100,00%
Portugal	Alone	30,00%	51,60%		39,10%
	With friends in the same place	20,00%	27,00%		22,80%
	With friends online	40,00%	17,50%	100,00%	31,00%
	With strangers online	10,00%	4,00%		7,10%
	Total	100,00%	100,00%	100,00%	100,00%

Source: own elaboration

Following this preliminary characterization of participants as gamers, respondents were asked about the frequency of their gaming sessions.

Table 6. Mean and Standard Deviation of frequency of play (0-10) and country by gaming mode

Country of residence		Free to play games on your mobile phone	Free to play games on your console	Paid games, in campaign or solo adventure mode	Paid games, in multiplayer mode	Games belonging to e-Sports
España	Mean	5,61	3,55	3,96	3,56	3,41
	St. Dev	2,827	2,684	3,257	2,911	2,778

Portugal	Mean	6,24	4,24	4,04	4,25	4,45
	St. Dev	2,951	3,039	3,515	3,87	3,955
Total	Mean	5,95	3,93	4,01	3,95	3,99
	St. Dev	2,91	2,903	3,398	3,488	3,514

Source: own elaboration

In this case, the results indicate the presence of different gaming modes (Table 6). When this question is linked to the previous one, it suggests that students engage with both free-to-play and paid games. Given that most students have limited or inexistent budgets, paid games may either consist of multiple low-cost titles (such as indie games) or a high frequency of play concentrated on a few high-value titles (such as AAA games like Fifa or Call of Duty). This latter pattern appears more prevalent among male participants, who report a higher annual budget allocated to video games.

3.1. Advertising in video games: advergaming, in-game advertising and ad around the game

The main objective of this research, beyond characterizing young university students in relation to video games, is to assess the potential of this audiovisual medium as an advertising platform in its various formats: advergaming, in-game advertising, and ad-around-game.

As an initial step, and focusing specifically on in-game and ad-around-game advertising, the first question asked whether participants were aware of or recalled ever playing video games that featured branded content. While overall responses were similar in both countries, a closer look reveals notable differences between the two samples (Table 7).

Table 7. Contingency table of whether or not you have played with brands by gender and country

Country of residence	Have you ever played video games that had branding or brand advertising in them?	The gender you identify with			Total
		Male	Female	I prefer not to say	
Spain	Yes	49,60%	39,40%	33,30%	45,10%
	No	3,10%	13,10%		7,30%
	I am not sure	47,30%	47,50%	66,70%	47,60%
	Total	100,00%	100,00%	100,00%	100,00%

Portugal	Yes	60,00%	22,50%	100,00%	43,00%
	No	20,00%	15,90%		17,70%
	I am not sure	20,00%	61,60%		39,20%
	Total	100,00%	100,00%	100,00%	100,00%

Source: own elaboration

A higher percentage of affirmative responses is observed among men, though this pattern does not hold for women in the Portuguese sample. In contrast, the Spanish sample shows a greater degree of similarity between male and female respondents. Additionally, Portuguese students of both genders display greater initial reluctance toward the unrestricted inclusion of advertising space for brands within video games, as illustrated in the table below.

Table 8. Contingency table of agreement with space allocation by gender and country

Country	Do you agree with video game manufacturers selling or ceding space to brands?	The gender you identify with			Total
		Male	Female	I prefer not to say	
Spain	Yes	51,90%	40,40%	66,70%	47,20%
	No	9,20%	9,10%		9,00%
	Depends	36,60%	44,40%	33,30%	39,90%
	I prefer not to say	2,30%	6,10%		3,90%
	Total	100,00%	100,00%	100,00%	100,00%
Portugal	Yes	40,00%	27,50%		33,40%
	No		3,60%		1,70%
	Depends	60,00%	54,30%	100,00%	58,00%
	I prefer not to say		14,50%		6,80%
	Total	100,00%	100,00%	100,00%	100,00%

Source: own elaboration

In this regard, Portuguese students strongly condition the acceptance of advertising spaces on the effective integration of the brand into the game's narrative, as well as on the brand not being the central protagonist of that narrative (categories 1, 2, and 8). Spanish students express a similar stance, although with less intensity. In fact, this difference was statistically significant, as shown by the Mann-Whitney U test (Sig. = .000, .001, and .001 in the aforementioned categories).

Table 9. Mean and standard deviation of conditions for brands (0-10) by country

	Spain		Portugal		Total	
	Mean	St. Dev.	Mean	St. Dev.	Mean	St. Dev.
1. Provided that it does not affect playability	7,65	2,54	9,24	1,99	8,55	2,38
2. Whenever the brand is in the background	7,20	2,32	7,78	2,35	7,52	2,35
3. As long as I like the brand or do not dislike it	5,56	2,49	4,56	3,20	5,00	2,95
4. Provided that it has an impact on the quality of the game	6,97	2,39	6,84	3,54	6,90	3,09
5. Provided that it results in a lower purchase price.	6,59	2,69	6,55	3,19	6,57	2,98
6. .Provided that it makes the game free of charge	6,90	2,79	8,07	1,72	7,56	2,32
7. As long as it is enjoyable/entertaining	6,66	2,43	7,43	2,67	7,10	2,59
8. Provided that advertising in that location or circumstance of the game is appropriate	7,14	2,20	7,75	2,26	7,49	2,25
9. Whenever you offer benefits/rewards if you see or interact with them.	6,77	2,54	7,23	2,38	7,03	2,46

Source: own elaboration

Turning to the next mode of video game advertising analyzed –the advergame– this study asked participants whether they were familiar with the term. The response, although slightly higher among women and consistent across both countries, revealed that the majority of respondents were unfamiliar with the concept (85.4% in the Spanish sample and 81.2% in the Portuguese sample) (Sig. $X^2 = .000$; Contingency Coefficients = .350 and .297 for gender-based differences, respectively).

Importantly, and in line with the objectives of this study, it is entirely possible for participants to be unfamiliar with the term yet have played advergames. Responses to this follow-up question remained mostly negative, though to a lesser extent than the previous one: 76.7% of Spanish respondents and 66.9% of Portuguese respondents indicated they had not played advergames. This difference is largely attributed to the male respondents in both samples, with 79.4% of Spanish males and

60% of Portuguese males stating they had not played such games. The female samples, by contrast, showed similar results in both countries (73.5% in Spain and 76.8% in Portugal).

The following question explored whether participants generally agreed with the use of video games as advertising platforms. The responses, presented in the table below, reveal significant differences between Spanish and Portuguese participants.

Table 10. Contingency table of agreement with advergaming by gender and country

Country of residence	In general, do you agree with the use of promotional video games as an advertising way?	The gender you identify with			Total
		Male	Female	I prefer not to say	
Spain	Yes	46,90%	46,00%	33,30%	46,30%
	No	17,20%	11,00%	33,30%	14,70%
	Depends	35,90%	43,00%	33,30%	39,00%
	Total	100,00%	100,00%	100,00%	100,00%
Portugal	Yes	30,00%	16,70%		23,20%
	No	10,00%			5,10%
	Depends	60,00%	83,30%	100,00%	71,70%
	Total	100,00%	100,00%	100,00%	100,00%

Source: own elaboration

Thus, responses were predominantly affirmative in the Spanish sample, while Portuguese participants expressed more reservations. This difference is statistically significant (Sig. $X^2 = .000$; Contingency Coefficient = .315). The key question, then, concerns the basis of these reservations. As shown in the table below, Portuguese participants are more likely to condition their acceptance of advertising in video games on specific factors—namely, that the games are free, entertaining, and that the brand is integrated into the narrative without being the central focus. In contrast, Spanish participants placed less emphasis on the games being free and prioritized game quality as a more decisive factor.

Table 11. Mean and Standard Deviation of conditions for advergames (0-10) by country

Country of residence		1.As long as video games are free	2. Provided the video game is high quality one.	3. Provided that the video game is highly entertaining and/or interesting.	4. As long as the video game provides quality content in relation to the brand.	5. Provided video games are reasonably priced.	6. Provided that the game is given more prominence than the brand.
Spain	Mean	6,74	7,29	7,24	7,11	6,83	7,44
	St. Dev	2,569	2,52	2,705	2,425	2,391	2,618
Portugal	Mean	8,07	7,25	8,26	7,93	7,43	8,57
	St. Dev	2,379	2,525	2,036	2,015	2,355	2,053
Total	Mean	7,5	7,27	7,82	7,58	7,18	8,09
	St. Dev	2,546	2,52	2,397	2,235	2,387	2,376

Source: own elaboration

A closer examination of country-level differences revealed statistically significant variations in the scores assigned to all categories except the second one (Mann-Whitney U test, Sig. = .000 for all categories except .003 in category 5).

Finally, the last question in this study explored students' preferred form of advertising within video games. The results, presented in the table below, indicate a degree of homogeneity between the two countries (Sig. $X^2 = .005$; Contingency Coefficient = .168).

Table 12. Contingency Table of Preferred Advertising Form by Gender and Country

Country of residence	Imagine a car brand launches a new sports car next year and wants to create excitement through video games. Which option would you most like to see?	The gender you identify with			Total
		Male	Female	I prefer not to say	
Spain	The new model is included in an existing racing video game (Ingame, high integration).	73,70%	55,80%	50,00%	65,60%
	The new model is shown on a advertising billboard of an existing racing video game (Ingame, low integration).	7,60%	8,40%		7,90%
	A 30-second spot is included in the loading screen of an existing racing video game (Ad Around Game).	8,50%	7,40%	50,00%	8,40%
	A new video game is created based on the new model (Advergame).	5,10%	21,10%		12,10%
	Another	5,10%	7,40%		6,00%
	Total	100,00%	100,00%	100,00%	100,00%
Portugal	The new model is included in an existing racing video game (Ingame, high integration).	70,00%	72,50%	100,00%	71,70%
	The new model is shown on a advertising billboard of an existing racing video game (Ingame, low integration).		3,60%		1,70%
	A 30-second spot is included in the loading screen of an existing racing video game (Ad Around Game).	20,00%			10,20%
	A new video game is created based on the new model (Advergame).	10,00%	17,40%		13,30%
	Another		6,50%		3,10%
	Total	100,00%	100,00%	100,00%	100,00%

Source: own elaboration

The results reveal a clear preference for in-game advertising that is deeply integrated into the game's narrative. Players tend to favor interacting with the brand as part of the gameplay rather than perceiving it as a superficial add-on. This response points to a compelling possibility: the creation of a shared narrative between the brand and the player, shaped through the player's experience of engaging with the brand in a meaningful way. In this context, the brand's role should be to facilitate immersive and emotionally resonant experiences that help build a deeper relationship with the user. One of the key challenges to achieving this, however, lies in the technological limitations that inevitably mediate and constrain the nature of this interaction.

4. Conclusions and Discussion

This research concludes, in line with previous academic studies and reports from key organizations (Urbaneja et al., 2023; AEVI, 2023; Newzoo, 2021), that video games represent a significant form of audiovisual consumption among young people in both Spain and Portugal. They are a consolidated cultural reality across genders and national contexts. However, while video games are widely consumed, the ways in which they are approached and experienced differ according to gender and country.

Portuguese female students report higher gaming intensity and frequency than their Spanish counterparts. Additionally, Portuguese players overall spend more time playing video games than Spanish players. Another notable difference lies in session duration: female players in both countries report shorter sessions than male players.

Differences are also observed in gameplay style: men are more likely to play online with friends, whereas women tend to play alone—this pattern holds true in both countries. Moreover, women show a stronger preference for free-to-play games, which suggests a greater inclination toward mobile gaming, often excluding other ecosystems such as consoles or e-sports. These trends are consistent with previous studies conducted in Spain (Deloitte, 2023; Digital Turbine and Mobile Marketing Association, 2023). It is important to note that “free-to-play” does not imply the absence of revenue; rather, income is generated through alternative channels such as in-app purchases, advertising, or various forms of sponsorship.

This characterization confirms, first, that video games are an established cultural medium among university students in both Spain and Portugal, and second, that relevant differences exist in how this medium is consumed.

Turning to the second objective of this study, video games as advertising platforms, the findings show that Spanish students are generally more receptive to in-game advertising, albeit with certain conditions, echoing previous studies (Alabau-Tejada, 2021; Nelson, 2004). Portuguese students, by contrast, demonstrate greater initial reluctance toward the unconditional inclusion of brand advertising within games.

Understanding the conditions under which advertising is accepted is thus crucial. Portuguese students strongly condition their acceptance on the brand being effectively integrated into the game’s narrative—without becoming the narrative’s protagonist. Spanish students express similar views, but with less intensity.

Regarding advergames, Portuguese students tend to disagree with their use unless certain conditions are met: the game must be free, enjoyable, and the brand must be embedded in the narrative without dominating it. In contrast, a majority of Spanish students express a general agreement with the use of advergames, placing more emphasis on the quality of the game than on its cost.

When it comes to more traditional forms of commercial integration, such as in-game advertising and ad-around-game formats, students in both countries clearly prefer in-game advertising that is meaningfully woven into the narrative. They prefer to interact with the brand during gameplay rather than simply observe it as a peripheral element (e.g., loading screen ads or static placements), a finding consistent with other studies (Chang et al., 2010; Rios & Almeida, 2019; Chaney et al., 2004).

In other words, students prefer a brand experience that is interactive and immersive, rather than passive. This highlights the potential for brands to develop a shared narrative with players, where the brand offers meaningful, engaging experiences. Such experiences can foster a deeper connection between user and brand.

Nevertheless, one of the main challenges in achieving this integration is technological limitation, which inevitably mediates and constrains the player-brand relationship. Moreover, certain game genres or settings (e.g., those set in pre-industrial contexts) may present obstacles to brand integration. These constraints could potentially discourage studios from developing such games if they are unable to secure advertising revenue, an issue already noted in previous literature (Sebastián Morillas et al., 2016).

In sum, this study underscores the relevance of video games as a cultural and expressive medium and highlights their potential as a platform for narrative-driven brand engagement. It also points to the willingness of young audiences to accept brand presence, provided it respects certain conditions of relevance, quality, and integration.

Limitations of this research must be acknowledged. The sample size, although substantial, limits the generalizability of the findings. Additionally, the geographic scope, restricted to a single Portuguese university, suggests the need for broader representation in future studies.

Future lines of research may explore comparisons with more culturally distant countries, or delve deeper into narrative modes of integration between brands, products, and players.

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6. Specific contributions of each author

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Drafting, formatting, version review and approval	Alejandro Tapia Frade, Gema Bonales Daimiel and Belén Moreno Albarracín

7. Conflict of interest

The authors declare that there is no conflict of interest contained in this article.

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