

The Impact of Gender Inclusivity in Video Games Subscriptions Ads

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Abstract

Impact of Gender Inclusivity in Video Games Memberships' Advertisement

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While the concept of inclusivity in advertisement is becoming more universal, male-dominated industries might see a counter effect when adapting their advertisement and including more diversity. This research examines how gender inclusivity in video game advertisements influences consumer responses. It empirically tested in 2x2 experiments whether gender inclusive (vs. gender non-inclusive) advertising impacted consumers' (male vs females) likeability of the ad and purchase intentions. Study 1 found that male consumers reported a significantly lower liking of the gender inclusive (versus gender non-inclusive) ad compared to female consumers, however this adverse effect was not replicated for purchase intention. Study 2 tested the mediating role of perception of endorser competence, as well as the role of perception of fit of the ad to the video game industry, but the results are not significant. This research provides insights for marketers that want to penetrate female markets in the video gaming industry. Additional implications and future research ideas are also discussed.

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Introduction

With an ever-growing want of diversity and inclusion in advertisement from the consumers, marketers are currently trying to balance representing their actual target market, while also including enough elements of diversity in their marketing communications to please the public. As a result, companies are trying their best to be inclusive of the multiple different demographics, such as genders, races, ages, etc. This is an important strategy to consider and execute well, since it doesn't only satisfy current consumers, but can also represent an opportunity to acquire new, untapped markets. Indeed, consumers that might have turned their back to non-inclusive companies, or companies that don't represent them, can be re-acquired and brought in as active customers.

When trying to demonstrate their support for diversity, the use of ads is one of the most prominent and easy ways to reach consumers. Indeed, with the era of technology and digital marketing, it is easy for companies to target their advertisement to specific segments, thereby making it possible for marketers to achieve their goal. In reaching out to new consumers, diversity helps bridge gaps where consumers might have felt left out. Consumers tend to interact more with brands in which they see their self represented, and in which they see their own personality traits (Aaker, 1997; Fournier, 1998; Grohmann, 2008; Park, 2010). Seeing elements of their self in a brand or ad, e.g., a young Italian male watching an ad in which the spokesperson is also a young Italian male, of around the same age, help consumers appreciate the ad through the process of self-identification (Sternadori & Abitbol, 2019), and therefore by presenting elements that are more diverse, brands have a change to tap into new and bigger markets.

While the goal of each brand is to maximize their market share, adapting a marketing strategy to be more inclusive can be a double-edged sword. This is notably the case with gendered industries. Since the traits attributed to gendered brands rely heavily on gender identity markers, an inclusive advertisement might generate opposite reactions from consumers. In practice, there

are many examples of brands that successfully used inclusive marketing in gendered industries and succeeded, however many of the succeeding cases are within female dominated industries, such as fashion and makeup. Within male dominated industries, such as sports, research has indicated that inclusion of women as broadcaster and endorsers is tolerated in this community through a more sexual and objectifying lens (i.e., showcasing only very attractive female presenters, females being sexualized through clothing, etc.) (Cooky et al, 2015; Cummins et al, 2019; Luisi et al, 2021; Mudrick, 2015; Mudrick et al, 2017;), which justifies women consumers not wanting to engage with these industries to the same extent as their male counterparts. The rejection of a more representative inclusion of females in male-dominated industries by current consumers (i.e., men) represents a challenge for companies in these industries that would want to adapt and expand their market.

While gender inclusivity in male dominated industries has been explored in research within the sports industry, the video game industry is also a male dominated industry that is notoriously rejecting the idea of gender inclusivity, but considerably less research has been done about this industry. The stereotype of a gamer remains to be represented as a male (Paaßen et al, 2017) while females continue to be rejected through video game sexism and perceptions of incompetence. In other words, men want to protect their “boys club” (Behm-Morawitz & Mastro, 2009; Fox & Tang, 2014). The body of literature on female inclusion within video games focuses more on the in-game characteristics of female players and avatars, namely the stereotyping of female gamers, oversexualization of female characters and rejection of performing female players (Behm-Morawitz & Mastro 2009; Dickerman et al, 2007; Downs & Smith, 2010; Hollett et al, 2020; Kondrat, 2015; Paaßen et al, 2017; Robinson, 2017). A gap in the literature is present with respect to the gender inclusivity in video game advertisement, its antecedents and consequences.

In practice, the main players within the video game industry have taken different approaches in their marketing communications. While the marketing of Nintendo has historically been focused on families and wider demographics (women, kids, etc.), XBOX and PlayStation

have been in a tight competition over the male market. Whereas PlayStation has decided to keep its marketing quite oriented towards their actual clients (i.e., mostly males), XBOX have recently adapted their market towards gender inclusivity. The question remains whether this more gender inclusive approach to marketing is beneficial for companies in a persistently male-dominant industry?

This research aims to better comprehend the consequences of gender inclusivity in advertisements for gendered industries trying to widen their target market to female consumers. More specifically, this research will provide empirical data and further knowledge on the efficiency of adapting marketing strategies to be more gender inclusive in male-dominated industries. Doing so, this research adds to the body of literature examining consumer outcomes in the video game market and expands our knowledge on how to adapt marketing communications in a protective, male dominated market. With the gaming industry growing at a fast pace, this research provides insightful and relevant knowledge for marketers.

Theoretical background

Gender inclusivity in marketing

Research has established that marketing can be more effective when communicating a clear identity to its consumers, in which they can project themselves or their ideal selves (Dolich, 1969; Hong & Zinkhan, 1995; Huang et al., 2012; Landon, 1974; Maehle et al., 2011; Mindrut et al., 2015; Schembri et al., 2010;). When trying to penetrate new markets, brands can include key elements in their marketing that conveys brand traits, including gender, in order to attract customers relating to them (Aaker, 1997; Batra, Lehman & Singh, 1993; Grohmann, 2008; Lieven et al., 2015; Sohler, 2002;). This tactic has been widely used and is increasingly popular in the 21st century with consumers demanding more inclusivity (Black, 2022; Estrina, 2021) of genders, races, and wider varieties of bodies. With the evolution of the vision of the typical consumers, brands now make a conscious effort to better represent consumers and their wants in their advertisement

models. Specifically, in addition to better cultural representation, empirical research has supported a significant drop in females depicted stereotypically, straying away from the portrayal of the oversexualized or objectified woman towards a more autonomous and independent female representation (Eisend, 2010). This is explained through a cultural change of three main factors that evolved gradually since the 1960's, namely the rise of feminism, which initiated an evolution in the occupational roles and opportunities for females, the integration of female in more diverse work roles and the changing structure and roles in regard to families (Grau & Zotos, 2016).

In fact, Middleton and Turnbull (2021) conducted interview-based qualitative research to better understand how consumers respond to advertisements that portray women in a stereotypical and sexualized way. They first presented their respondents with a 15-second advertisement (KFC from 2020) in which the waitress wore a very-short skirt and checked herself out in the reflection of a parked car's window while adjusting her well-endowed chest. At that moment, the car's window rolls down revealing a mother with two excited young boys sitting within the car, witnessing the waitress' actions. The waitress then smiles and says, "Did someone say KFC". Note that the intention of this slogan was to brush off the embarrassing moment – and this ad was one of several advertisements that used humor as their main appeal. When asked for their opinion, respondents from both genders had a definite adverse response to the ad and outright rejected the ad. They felt offended, thought that the waitress was objectified in the ad, and did not appreciate this stereotypical female portrayal by an established brand in 2020. Instead, they would have liked to see a more respectful and less objectified portrayal of the female person. These findings echo the increased demand for a more respectful, representative, and realistic portrayal of women in advertisement through such consumers-led movements as Femvertising and #Metoo. As a result, the industry became increasingly cautionary of their content. Brands are adapting to the public's evolved gender perceptions, and in consequence try to include a more representative portrayal of gender in their ads (Baker et al., 2019, Eisend, 2010; Eisend, 2019).

Brands therefore highly benefit from including a more representative portrayals of both genders as well as gender diversity in their campaigns and ads. Inclusive strategies for diversity marketing need to showcase key elements of inclusivity to be successful, that Bourke and Dillon (2018) identified as fairness and respect, valued, and belonging, safe and open, and empowered and growing. Acknowledging that marketing must adapt their strategies to represent the diverse consumer is a key success factor in today's marketing (Dimitrieska et al., 2019). Doing so would translate in including more diverse and inclusive cues in ads (whether from gender, body types, culture, etc.) and show an understanding of the segment targeted by not including elements that could be counterproductive (e.g., including women in an ad for home improvement tools, but portraying her as incompetent or weak).

One of the reasons why consumers respond so positively to representativeness and inclusivity in ads is due to the concept of fluency, or “the ease with which instances or associations come to mind” (Tversky and Kahneman, 1973, p.208; see also Lee and Labroo, 2004). Specifically, when a consumer encounters an ad that generates a positive association, the attitude towards the ad is increased, which in turns increases the attitude towards the brand and motivates purchase intentions (Spears & Singh, 2004). When primed with predictive context (i.e., expected idea of consumption context) or with previous seen content, consumers tend to have higher processing fluency with ads, which translates in higher liking of the ad (Lee and Labroo, 2004). However, the context of marketing does not always allow for priming or previous exposure. Processing fluency can be increased by either simplifying the ad (i.e., make it easy to understand, read or process, Kostyk and al., 2021) or including cues that allow the consumer to make associations with their self and what they see in the ad (Hong and Zinkhan, 1995; Huang and al., 2012; Maehle and al., 2011; Malar and al., 2011; Landon, 1974; Park and John, 2010; Schembri and al., 2010). By utilizing inclusive strategies, marketers widen their chance for potential consumers to perceive their own self in the ad, leading to an unconscious positive association that could result in higher succeeding chance of attracting new consumers, or even providing additional reasons for existing consumers to pursue with the brand.

Female roles within male dominated industries

Although mostly met with positive responses, not all the markets respond similarly to inclusive marketing. Indeed, some industries, dominated by a narrower demographic, prefer status quo for their marketing. It is the case notably in the sports industry, a notoriously male dominated industry that historically did not adapt itself to the inclusive marketing tendencies.

The literature supports the gender non-inclusive nature of the sports industry. Tuggle's (1997) analysis of female anchors in sport reporters on two big sports channels (ESPN Sports Center and CNN Sports Tonight) has highlighted the lack of coverage of women's sports (accounting for only 5% of airtime) and lower screen time for female anchors. Schmidt (2015) has reported similar findings within a university setting, where females face marginalization through lack of female reporters and female sports coverage. Even though males represent the majority of consumers in mediatized sports, the current percentage of female sport aired does not come close to what an equitable representation should be (2.3% actual, versus 6 to 9% for equity) (Cooky et al., 2015). Lee Sargent and colleagues (1998) have additionally supported in their research that the female segment expressed higher enjoyment of sports media when it displayed elements of individual, graceful sports, such as gymnastics or ice skating, while men were more oriented towards sports that displayed attributes of masculinity, like aggressiveness and competition. It was hypothesized that the reasoning behind this lower female visibility is the result of an ongoing vicious cycle, where females don't engage in sports media consumption for a lack of gender representation, which in turns keeps the female audience low, therefore making it difficult to justify increasing female presence in sports media coverage (Whiteside & Hardin, 2011). This is consistent with the consumer behavior literature that indicates higher consumer involvement with brands, in this case the sports channels, that displays elements of congruity between the viewer and the televised sports showcased, giving foundation to this lack of female representation that still persists to this day.

Besides being underrepresented in the male dominated industries, females in the sports industry face the reality of being showcased through a more sexist lens (e.g., ring girls in UFC). The literature supports that female sportscasters were usually picked for a young, attractive appearance, rather than expertise (Grubb & Billiot, 2010; Sargent et al., 1998; Sheffer & Schultz, 2007). In an experimental setting with eye tracking device, Cummins et al. (2019) found that consumers spent a considerably greater time looking at female sportscasters' bodies (versus faces) than their male counterparts, which supports channels picking female presenters on different criteria than males. The sports domain relies heavily on competence and knowledge of their anchors, which is usually associated with age. However, the visual cues that offer younger women seem to be the main incentive in their presence on air, so it's hindering their professional progress (Silbar, 2021). Furthermore, when female reporters are present, athletes and colleagues are more likely to degrade them on air with demeaning comments or names (sweetie, honey), which contributes further to their objectification (Silbar, 2021).

Women trying to infiltrate the market as professionals also face the sexist nature of the industry by being denied equal career opportunities (Luisi et al., 2021), by being given restricted opportunities, such as only covering female sports and report generally higher work dissatisfaction than their male counterparts (Kimberly et al., 2005). Even though this phenomenon is slowly evolving, the female sports anchors still represent an important minority (about 7%) of the industry (Sheffer & Schultz, 2007) as the sport industry remains rigid about gender equalitarian opportunities. Females present in the industry also indicate higher level of harassment and barriers regarding their professional advancements (Grubb & Billiot, 2010). In fact, Miloch and colleagues (2005) have outlined that the most positive advancement on gender equality within the industry is when the newscaster are not seen, but rather can be read (i.e., written news) and therefore not clearly identified as females.

Similar in demographics to the sports industry, the video game industry is also confronted to the duality of wanting to penetrate the female market while historically being rigid to gender inclusion. The female imagery in itself through playable characters faces an evident lack of representation. Not only are female characters rarer, but they often are also portrayed as oversexualized females, wearing very revealing clothes, and displaying sexual behaviours and traits that the male characters don't typically have (Beasley & Collins, 2002; Dickerman et al., 2008; Hollett et al., 2020; Perry, 2021;). Additionally, they are often portrayed as more passive, helpless characters (Ogletree & Drake, 2007), damsel in distress that requires saving interventions from a male (Downs & Smith, 2010; Kondrat, 2015; Burgess et al., 2007) or as utilitarian for the main character (Downs & Smith, 2010). In turn, this stereotypical and offensive depiction in mainstream games self imposes a barrier for potential female customers to engage with games and prevents those who do from enjoying them completely. Indeed, experimental research from Behm-Morawitz and Mastro (2009) exposed that sexualized heroines not only diminishes the perception of real life females, but also negatively impacted their self-efficacy and in-game performance.

As for the female video game players, they also face stigmatization and rejection from the video game community, since the typical gamer is seen as a high performing male, even if the current distribution of gender engaging with videogame is about equal (Paaßen et al., 2017). They are often facing open sexism from other players that has a dismissive effect on their will to engage with video games. Similarly, to the sports industry, this effect is stronger for players demonstrating high video game sexism (Fox & Tang, 2014), which is expressed through social dominance, reaffirmation of male stereotypes, and making false, derogatory affirmations about female gamers (e.g., "Women who play video games are seeking special favors from men" or "Having a woman play brings down the quality of the game.", p.319).

A new recent wave of digital marketing from the main actors in the video game industry (i.e., Nintendo, XBOX, and PlayStation) indicates a want to penetrate a new market by targeting female audiences. As Nintendo's been historically known for providing games and consoles made

for all (including females, families, and kids), it's not the case of the other two video game giants. The emergence of a new type of service, namely video game monthly subscription, is creating opportunities for these companies to reach new markets. As the literature succeeds in demonstrating the masculine nature of the video game industry, reaching new demographics might be challenging. In practice, XBOX has reoriented their marketing towards a more gender inclusive depiction, showcasing more female players as well as female characters in their ads than PlayStation (XBOX Live Gold, 2022; Sony Interactive Entertainment LCC, 2022). The current stream of research on the video game industry however has not extensively looked at the marginal difference these corporations face by keeping or changing their current gender inclusion strategies in their marketing communications.

Based on the literature review on male dominated industries and the resistance of men to represent females adequately and equitably within this space, we hypothesize the following:

H1a: Gender inclusive (vs. non inclusive) advertisements within the video game industry will have a direct negative (vs positive) effect on male (versus female) consumers, resulting in lower (higher) liking of the ad.

H1b: Gender inclusive (vs. non inclusive) advertisements within the video game industry will have a direct negative (vs positive) effect on male (versus female) consumers, resulting in lower (higher) purchase intention.

Role of Perceived Competence

Going back to the sports literature, there is some evidence to explain why the current main consumers (i.e., males) of sports media continue to reject the idea of feminine presence in sports. Namely, Grubb and Billiot (2010) stated that sports “[is] a culture; the dominant culture [...] where men rule, and women are marginalized and objectified” (p.87). Within that culture, women are

often perceived as inferior to their male counterparts. In an experimental setting on perceptions of football play-by-plays, Luisi et al. (2021) found that female commentators were perceived as less competent and less exciting than male commentators (Luisi et al., 2021). Their findings support the conclusions from another experiment, where with basketball commentators, credibility of female sportscasters was lower than males (Mudrick et al., 2017). This effect was found to be mediated by the endorsement of gender stereotype and level of sexism of the respondents (Mudrick 2015; Mudrick et al., 2017). Lower credibility of female sport broadcasters can also be explained by the objectified nature of the role attributed to them. This perception of low competence of females is something that has been reiterated in multiple empirical research in the sports industry (Baiocchi-Wagner & Behm-Morawitz, 2010; Cummins et al., 2019; Luisi et al., 2021; Mudrick et al., 2017; Pratt et al., 2018; Silbar, 2021), but is as commonly present in empirical research in the video game industry (Fox & Tang, 2014; Ogletree & Drake, 2007; Paaßen et al., 2017; Perry, 2021; Salter & Blodgett, 2012).

Based on the literature supporting the negative effect of perception of competence on the acceptance in gender inclusive strategies, we hypothesize the following:

H2: Males' negative response to gender inclusivity in video game advertisements is driven by perceptions of low female endorser competence.

Although discussed in our literature review, concepts of processing fluency and self-congruity with the ad will not be explicitly tested in our studies. In this instance, we simply assume that males (versus females) will perceive the gender inclusive ads as less fluent/less self-congruent resulting in the less favorable reaction to such ads.

Conceptual framework

This research aims to investigate the impact of gender inclusivity in video game ads on consumers' attitudinal responses and behavioral intentions. Specifically, our research goal is to analyze if the presence (versus absence) of gender inclusivity in video game ads, in interaction with the consumers' gender (male/female), impacted the attitudinal responses and purchase intentions towards the advertised gaming services.

The conceptual framework is partly based on Spears and Singh (2004) framework, in which the initial response evoked by an ad impacts ad liking, which in turn influences consumers' behavioral intentions. Since findings from the sports literature indicates that consumers' gender has a significant influence on their response towards gender inclusion in male dominated industries, we posit that the interaction between the respondent's gender and visual cues of gender inclusivity will influence their feelings towards the ad and their behavioral intentions.

Methods

Pretest

To test the effects of ad gender inclusivity, we first pretested the ad stimuli to ensure that they are perceived as distinctly gender inclusive versus non-inclusive, while being perceived as similar on other relevant dimensions (e.g., excitement, persuasiveness). Additionally, we tested the accuracy of relevance of using the Bem Sex-Role Inventory (BSRI) scale (Bem, 1974) to measure individual gender identity compared to self-reported gender.

Design and sample

Eighty-five undergraduate students (65.5% female, Mage=21.03) were recruited to fill out an online questionnaire in exchange for partial course credit. The questionnaire took about 10 minutes to complete. Participants were first presented with a detailed explanation of the research

and required to sign an inform consent form before starting the survey. By not completing the consent form, or by indicating a disagreement with the experiment details, participants were redirected towards the end of the survey.

Participants were randomly assigned to one of two conditions. They were first presented with a cover story that the researchers are collaborating with an established video game company that is seeking market's opinion about images they are considering including in their next national advertisement campaign for their monthly subscription service. In the gender inclusive condition, participants were shown two ads of a group of friends playing video games. Each picture was made up of four players – in this case two males and two females. In the gender non-inclusive condition, participants were shown two ads with four males playing video games. To be clear, gender inclusivity in the ad was manipulated by the presence (inclusive) versus absence (non-inclusive) of females in the ad. All images were selected from a copyright-free image bank, and the primary researcher selected images that presented the least confounds. All images included four young individuals that seemed like good friends, laughing, and enjoying a video game in a living room setting. See Figure A in Appendix for images. After viewing the images, participants were asked a series of questions about the ad. It is worth noting that we deliberately chose not to include an all-female gender non-inclusive condition to better reflect what's currently done in the video game industry.

Measures

For each condition, participants were shown two pictures corresponding to their condition. After viewing each image, the respondents answered a series of questions. To assess perceived gender inclusivity of the ad, respondents answered “After seeing this ad, would you consider it as gender inclusive?” (1 = Strongly disagree, 7 = Strongly agree). Participants also answered “How exciting is the ad?” (1 = Very unexciting, 7 = Very exciting), as well as “How persuasive is the ad?” (1 = Very non persuasive, 7 = Very persuasive), to ensure that these are equivalent across

conditions. Participants were then shown the second ad for the same condition, and asked the same questions, in the same order.

In a second block, we included a few questions to gauge millennials overall familiarity and interest in video games. Level of familiarity (1 = Not familiar at all, 5 = Extremely familiar) was measured for both the main actors of the video game industry (i.e., Nintendo, PlayStation, and XBOX) and for the monthly subscription memberships they offer (i.e., Nintendo Switch Online, PlayStation Plus and XBOX Live Gold). Participants were also asked to self-report the number of hours they typically game during a week, if they owned gaming consoles and if they were currently subscribed to monthly gaming subscriptions. We also measured their overall perception of masculinity/femininity of the gaming industry (1 = Strongly masculine, 7 = Strongly feminine) and how relevant they perceived gender inclusivity to be for marketers (1 = Strongly relevant, 7 = Strongly irrelevant). Lastly, we asked participants to write what brand they thought the ad was for.

Finally, we measured self-reported gender (Male, Female, Non-binary, Other (specify) or Prefer not to say) and additionally measured gender through administration of the BSRI scale (Bem, 1974). We also collected additional demographics and asked respondents to self-report their English proficiency level, indicate if they had issues while completing the survey and (optional) comment on the study.

Results and discussion

From our initial data collection ($n = 85$), eight (8) responses were removed for failing to complete the entire survey. One respondent was also removed for answering “Tiger” to the self-reported gender text entry, suggesting that s/he did not complete the survey seriously. Elimination based on these criteria left us with $n = 76$ respondents (39 non inclusive condition, 37 inclusive condition).

The ads presented in the gender inclusive condition were perceived as more gender inclusive ($M_{ad1} = 5.57$, $SD_{ad1} = 1.537$, $M_{ad2} = 5.81$, $SD_{ad2} = 1.126$) than the ads in the gender non-inclusive condition ($M_{ad3} = 2.64$, $SD_{ad3} = 1.630$, $M_{ad4} = 2.54$, $SD_{ad4} = 1.411$). All contrasts between the gender inclusive and gender non-inclusive ads were significant at $p < 0.05$, while the contrasts between the ads within condition were not significant ($p > 0.1$) (see Appendix A for detailed results). Further, the pretested images did not significantly differ in terms of excitement or perceived persuasiveness within or between conditions ($p > 0.1$) (see Appendix A for detailed results). Based on these results, we chose ads 1 and 3 (see Figure A) as they had a considerable mean difference in terms of perceived gender inclusivity yet were perceived as the most similar in terms of excitement and persuasiveness.

Follow up analyses revealed that the millennial population is very familiar with video games and the main brands of video games in the industry (Xbox, Nintendo, Play Station). The majority own at least one console (71.1%). Most consider the video game industry as “somewhat masculine”, and report that it is very relevant for marketers to be inclusive in their advertisements. Finally, independent sample t-test showed no significant difference between the BSRI score from respondents identifying as males (Mean = 4.819, SD = 0.365) and those identifying as females (Mean = 4.680, SD = 0.401) ($t(74) = 1.478$, $p = 0.144$). Based on these results, we decided not to use the BSRI scale as a measure of gender identity in our studies and instead ask respondents to directly self-report their gender identity.

Study 1

The first study served to test whether self-reported gender determined how consumers respond to gender inclusive versus non-inclusive advertisements in the video game industry. In this study, participants were first presented with one image that reflected an either gender inclusive versus non-inclusive ad and were asked to answer a series of evaluative questions to assess ad liking and behavioral intentions toward the advertised service.

Design and sample

Two hundred and sixty-six undergraduate students (47.4% female, $M_{age}=21.43$) were recruited to fill out an online questionnaire in exchange for partial course credit. The questionnaire took about 10 minutes to complete. Participants were first asked to read a consent form explaining the purpose of the research and had to give their consent for data usage. Failure to comply with the consent form redirected them towards the end of the survey. The participants were randomly assigned to one of two conditions (gender inclusive versus gender non-inclusive). Each condition was made up of the same questions, with the exception of distinct stimuli selected via the pretest.

Procedure and Measures

Upon signing the consent form, participants were directed to the first study which presumably aimed to assess how gender identity impacts consumption habits. After reporting their gender identity on a continuous scale (1 = Very feminine, 7 = Very masculine), participants were asked to indicate their recent purchases and also report to what extent they anticipate their spending levels to change for a preselected list of purchase categories (e.g., groceries, restaurant, transportation, etc.) (1 = Decrease a lot, 7 = Increase a lot). The questions about consumer spending were included to minimize demand, but were not used, nor directly linked to our main study. Next, participants were randomly assigned to the gender inclusive or non-inclusive condition. As in the pretest, participants were informed that an established video game company is conducting market research and is seeking market's opinion about the image they want to use in an upcoming campaign for their subscription service. Participants then viewed one pretested image and asked to answer a series of questions. Gender inclusivity in the ad was manipulated by the presence (inclusive) or absence (non-inclusive) of female players.

To assess ad liking, respondents answered the following four questions (adapted from Spears & Singh, 2004): "How would you rate your feelings towards the ad" (1 = Bad,

7 = Good), “How appealing did you find this ad” (1 = Unappealing, 7 = Appealing), “How pleasant was this ad?” (1 = Favorable, 7 = Unfavorable) and “How likeable would you say this ad is?” (1 = Unlikeable, 7 = Likeable). To assess behavioral intentions, participants answered the following five questions (adapted from Spears & Singh, 2004): “After seeing this ad, how motivated are you to seek more information about the promoted subscription?” (1 = Unmotivated, 7 = Motivated), “After seeing the ad, would you see yourself purchasing a subscription?” (1 = Not at all, 7 = Definitely), “After seeing this ad, how probable is it that you would purchase a subscription to this service?” (1 = Definitely not probable, 7 = Definitely probable), “What would you say your purchase interest towards this service is after seeing this ad?” (1 = Very low purchase interest, 7 = Very high purchase interest), and “After seeing this ad, how likely would you be to buy the promoted subscription?” (1 = Would definitely buy it, 7 = Would definitely not buy it).

After an attention check question, participants next reported the extent to which they perceived the ad as gender inclusive (i.e., manipulation check). The next set of questions measured the video game familiarity of the participants. A similar subset of questions from the pretest were used, namely listing consoles owned, hours of gaming per week, familiarity with the existing gaming subscriptions (Nintendo Switch Online, XBOX Live Gold and PlayStation Plus) and if they were currently subscribed to one of them. We additionally asked the participants to rate the gender perception of the gaming industry (1 = Masculine, 7 = Feminine) and how relevant they thought gender inclusivity is in ads (1 = Very relevant, 7 = Very irrelevant). Finally, participants answered some demographic questions, including their gender (male, female, non-binary, other), as well as self-reported their level of English proficiency, if they felt distracted during completion, if they surfed on the web while filling out the questionnaire and if they experience technical issues. The complete questionnaire is available in Appendix B.

Analyses and Results

Data cleaning

From the initial pool of respondents ($n = 245$), we removed the following participants: (1) participants that self-reported as neither Male or Female were removed ($n = 3$), (2) participants that answered the survey twice (identified through ID collection) or that did not entirely complete the survey were removed ($n = 30$), (3) participants that did not accept the consent form at the beginning of the study ($n = 3$), (4) participants that represented outliers ($+3SD$ from mean) in terms of duration it took them to complete the survey (Mean = 502.43s.) ($n = 4$) and age (Mean = 21.43 years old) ($n = 4$), (5) respondents that provided comments that indicated lack of seriousness in taking the questionnaire, or that explicitly mentioned that their data should not be used, were removed ($n = 4$). It is worth mentioning, that we also considered the attention check as a reason to filter participants based on data quality, but deletion of people not complying with it removed too many participants ($n = 98$).

Additional data reduction filters were tested on the main dependent variable (DV) of our experiment, namely liking of the ad (loading on both 4 and 5 factors). Removing data from respondents that indicated low English proficiency level (i.e. “I understand, read and speak the language poorly, I have a lot of trouble understanding the language”), respondents that indicated having experienced technical issues while filling out the survey, respondents that reported surfing on the web while filling out the survey and respondents that reported having being distracted / interrupted while filling out the questionnaire did not improve results. Therefore, these filters were not used for data analysis.

After data reduction filters, a total of 200 participations (50.5% female, $M_{age} = 20.88$) were used for further data analysis, using SPSS.

Manipulation check

A simple t-test revealed that participants assigned to the gender inclusive condition perceived the image they viewed as more gender inclusive ($M = 3.16$, $SD = 1.853$) than

participants in the gender non-inclusive condition ($M = 4.88$, $SD = 1.859$, $t(196) = 6.54$, $p < 0.001$).

Reliability analysis

Reliability analyses were performed on constructs that consisted of multiple items. First, the construct of ad liking, made up of five items, was analyzed. One of the items (i.e., "How favorable are you towards this ad" (1 = Favorable, 7 = Unfavorable)), was reverse-scored. Cronbach's alpha value for the 5-item construct was 0.859, above the generally acceptable value of 0.70 for good reliability, and above the generally accepted value of 0.8 for very good reliability (Moran, 2021). Item-total statistics indicated a high-value for Cronbach's alpha (0.950) if item number four, or the item that was reverse-scored, was deleted. Reliability tables are found in Appendix C, Tables C.1 and C.2. Second, we assessed the reliability of the five items for behavioral intention. One of the items was reverse scored (i.e., "How likely would you be to buy the subscription" (1 = Would definitely buy it, 7 = Would definitely not buy it)). Cronbach's alpha value for the 5-items construct was 0.749. Item-total statistics indicated a slightly higher value for Cronbach's alpha (0.799) if item number five, or the reversed-score item was removed. Reliability tables are found in Appendix C, Tables C.3 to C.6.

Factor analysis

Factor analyses were conducted to evaluate if all the items within our multiple-items constructs should be kept.

First, a factor analysis was conducted on the five-items Ad Liking construct. The correlation matrix indicated values under the cut-off of 0.5 for items correlating with the reverse-scores fourth item (Like_4_rev), indicating that it might be better to drop it. The Kaiser-Meyer-Olkin measure of sampling adequacy was 0.867, above the generally recommended value of 0.6, and the Bartlett's Test of Sphericity was significant ($\chi^2(10) = 783.141$, $p < 0.01$). Communalities all accounted for high impact on variance (> 0.80), except the fourth reversed item (Like_4_rev)

which was way below the accepted cut-off of 0.5 (0.062). All items but the Like_4_rev loaded on one factor and had factor loadings (> 0.90). Following these results, the reversed fourth item was removed, and factor analysis was redone to evaluate the construct on four-items (Table C.3).

Factor analysis of the Ad Liking construct on four-items (removing the reversed fourth item) indicated high factor loading on one factor. The correlation matrix indicated overall values above the cut-off of 0.5 (all correlation > 0.79). The Kaiser-Meyer-Olkin measure of sampling adequacy was 0.864, above the generally recommended value of 0.6, and the Bartlett's Test of Sphericity was significant ($\chi^2(6) = 777.287$, $p < 0.001$). Communalities all accounted for high impact on variance, above the generally accepted value of 0.8. All four items loaded on one factor and had high factor loading, above 0.90. Following these results, a new construct of Ad Liking consisting of four-items was created for further analyses (Table C.4).

Factor analysis was conducted on the five-items Purchase Intention construct. The correlation matrix indicated values under the cut-off of 0.5 for items correlating with the first item and the fifth (reverse coded) items, suggesting that these two items are not conceptually similar to the other three. The Kaiser-Meyer-Olkin measure of sampling adequacy was 0.762, above the generally recommended value of 0.6, and the Bartlett's Test of Sphericity was significant ($\chi^2(10) = 455.313$, $p < 0.01$). Communalities accounted for high impact on the variance only for the items 2, 3 and 4. The first and fifth items indicated communalities lower than the accepted cut-off value of 0.5 (PI_1 = 0.222, PI_5_rev = 0.101). Component matrix highlighted that only three (3) items had high factor loadings on the same factor (> 0.88), while the first and the fifth (reversed) items were lower than the accepted value of 0.5. Following these results, the first item ("How motivated would you be to seek more information about the promoted subscription", 1 = Unmotivated, 7 = Motivated) and the fifth item, reversed (How likely would you be to buy the subscription", 1 = Would definitely buy it, 7 = Would definitely not buy it) were dropped (Table C.5).

A new factor analysis of the remaining three purchase intention items was conducted to evaluate the impact of removing low loading factor items. Correlation matrix indicated overall scores above the 0.5 cut-off (all > 0.76). The Kaiser-Meyer-Olkin measure of sampling adequacy was 0.753, above the generally recommended value of 0.6, and the Bartlett's Test of Sphericity was significant ($\chi^2(3) = 419.459$, $p < 0.01$). Communalities accounted for high impact on the variance for all three items (>0.82), and all items had high factor loading on the same construct (>0.90). Following these results, a new variable of purchase intention was created, account for the items number 2, 3 and 4 (Table C.6).

Analysis of interaction between gender and condition (testing hypotheses)

Analyses of variance were performed to test our main hypotheses (H1a, H1b), whether the interplay between gender inclusivity in video game ads and gender of the consumer influenced ad liking and purchase intention.

The first set of analyses included the dichotomous gender variable (male, female). An ANOVA on the dependent variable Ad Liking (4-items) revealed a statistically significant main effect of gender on ad liking ($F(1, 196) = 5.203$, $p = 0.024$), and more importantly a significant interaction between ad gender inclusivity x gender on ad liking ($F(1, 196) = 4.597$, $p = 0.033$). Simple contrast analyses showed that in the gender inclusive condition (i.e., ads that included female models), males reported significantly lower ad liking ($M = 3.75$, $SD = 1.54$) compared to female participants ($M = 4.63$, $SD = 1.49$, $F(1, 196) = 9.578$, $p = 0.002$). There was however no difference in ad liking across genders in the gender non-inclusive (i.e., all male models) condition ($M_{male} = 4.45$, $SD_{male} = 1.41$; $M_{female} = 4.48$, $SD_{female} = 1.10$, $F(1, 196) = 0.10$, $p = 0.922$) (Table C.8) (see Figure B). These findings support H1a.

An ANOVA (Ad Gender Inclusivity x Gender) on the dependent variable Purchase Intention (3-items) revealed no significant main effects or interaction effect ($ps > 0.50$). Pairwise contrasts showed no significant contrasts either ($ps > 0.50$) (Table C.10). H1b is not supported.

In the second set of analyses, we used the continuous gender identity measure as an independent variable (instead of the dichotomous (male / female) variable) to see whether this more nuanced measure would reveal more significant results, especially for the purchase intention dependent variable. A spotlight analysis (Hayes, model 1, Table C.11) was conducted using gender as a continuous variable (1 = Very Feminine, 7 = Very Masculine). The analysis showed no significant main effects or interaction of ad gender inclusivity x gender on ad liking (p s > 0.40). Similarly, we found no significant main effects or interaction on purchase intentions (p s > 0.50).

We conducted additional analyses by examining several covariates: hours spend gaming per week, familiarity with gaming brands and products, perceived relevance to include inclusivity in today's marketing communication, and English proficiency, but inclusion of these variables as covariates did not improve our results.

Discussion

The interaction between the consumer's gender and the ad's gender inclusivity did have a significant impact on ad liking of male consumers but did not have a significant impact on purchase intentions. Our findings support that in the male dominated industry of video gaming, males liked gender inclusive ads that featured female players significantly less than female participants did. There was no significant difference in ad liking between males and females in the gender non-inclusive condition. As for the other construct in our model, male and female participants did not express a stronger intention to purchase the promoted service in neither of the two conditions. For both the gender inclusive and the gender non-inclusive stimuli, there was no significant difference between how the males and females evaluated their purchase intent. While viewing an ad image might be sufficient to impact ad liking, there might be too many other factors at play when it comes to purchase intentions (e.g., interest in gaming overall, already owning a gaming subscription, price, being sensitive to gaming addiction, etc.) which might have diluted our findings.

One limitation of the current study is the issue of external validity, which we will address in Study 2 by using respondents from a broader and more diverse population. Using students is good for initial testing of hypotheses, since the internal validity of the respondents is high due to their similarities in demographics. A broader and larger sample of respondents could also potentially help us get a stronger effect, and possibly find significance in our model. Also, since the reverse coded items were problematic, we ensured that all items in Study 2 are measured in the same direction (1 = most negative, 7 = most positive) to avoid the issue of unreliable items. Additionally, in Study 2 we will test our entire conceptual model, by including a measure of perception of competence as mediator.

Study 2

The aim of Study 2 was to re-test our main hypotheses that ad gender inclusivity and consumer gender have an interactive effect on ad liking and behavioral intentions, among a more representative population. This study also aims to test the mediating role of perceived competence. Similarly, as in Study 1, participants were first exposed to a gender inclusive or gender non-inclusive image advertising a gaming subscription service, and then were asked a series of questions gauging ad liking, purchase intentions and perceptions of competence.

Design and sample

Five hundred and fourthy nine participants (37.74% female, $M_{age}=37.65$) were recruited through Amazon Turks (MTurks) in exchange for monetary compensation. The questionnaire took about 10 minutes to complete. Participants were first asked to read a consent form explaining the purpose of the research and had to give their consent for data usage. Failure to comply with the consent form redirected them towards the end of the survey.

Procedures and Measures

The procedure used in Study 2 was almost identical to that of Study 1, with a few exceptions. First, participants were exposed to the same cover story which assessed their gender identity (continuous variable). Next, participants were randomly assigned to either view the gender inclusive or gender non-inclusive image that is presumably tested to be used in an upcoming campaign. After viewing the ad, participants responded to the 3-item measure of ad liking, and the 4-item measure of purchase intention from Study 1 (1 reverse-scored item from each original scale was removed to address reliability issues). To assess perceived competence, participants were presented with the stimuli image once again and asked to respond to the following three questions (adapted from Pratt & al., 2018): “To what extent would you describe the video game competence of the people in the ad” (1 = Not competent at all, 7 = Very competent), “To what extent would you trust the video game opinion of the people in this ad” (1 = Not trust at all, 7 = Totally trust), “To what extent do you perceive the people in the ad as “expert” gamers?” (1 = Not at all experts, 7 = Very much experts).

Following this, respondents were tasked to evaluate the gender inclusivity of the ad (as in Study 1), and evaluate the fit of the ad and the video game industry on 3 items: “To what extent did you think the ad was representative of the video game market?” (1 = Not at all representative, 7 = Very representative), “Is the ad image suitably fitted (or appropriate) for the advertised product (i.e., video gaming subscription service)?” (1 = Not a fit at all, 7 = Perfect fit) and “How credible is this ad in regard to the product it is advertising?” (1 = Not credible at all, 7 = Very credible). To account for possible covariates, participants responded to questions pertaining to familiarity, perceived relevance of inclusivity in ads, their consumer habits and video gaming profile. Additionally, participants self-reported their level of game-playing (1 = I’m not a gamer at all, 7 = I’m an avid gamer), and if their level was > 1, they were asked to state their weekly gaming time (in hours). They evaluated their knowledge of the video game industry (1 = Not knowledgeable at all, 7 = Very knowledgeable) and the perceived gender of the industry (1 = Very feminine, 7 = Very masculine). Further, participants completed a 20-item scale of video game sexism, which refers to the Video Game Sexism Scale (Fox & Tang, 2014) (1 = Strongly agree, 7 = Strongly

disagree). Within the list of items, we included a second attention check which stated, “In order to register your answer, please indicate (3)”.

In the last block, demographics were collected (including the nominal gender variable), as well as self-report of English proficiency level, if they felt distracted during completion, if they surfed on the web while filling out the questionnaire and if they experience technical issues. The supplementary questions included in Study 2 are included in Appendix D.

Analyses and Results

Data cleaning

From the initial pool of respondents ($n = 549$), the same data reduction filters were applied as in Study 1: respondents were removed if they (1) did not finish the questionnaire ($n = 45$), (2) did not comply with the consent form ($n = 1$), (3) did not identify as either male or female ($n = 6$), (4) represented outliers based on self-reported age ($+3SD$ from mean) ($n = 5$) and based on length of time it took to complete the survey ($-1 SD$ from mean and $+3SD$ from mean: Mean = 355.49, SD = 203.43) ($n = 5$), (5) failed the attention check ($n = 20$). We did not remove participants who might have completed the survey more than once because participants could not be ID identified.

It is worth mentioning, that deletion of respondents that did not identify the stimuli correctly (i.e., identified the gender non-inclusive ad as “Very gender inclusive” and the gender inclusive ad as “Not gender inclusive at all”) would have improved significance of results, however, we decided to omit this exclusion criteria because we did not use an equivalent criteria in Study 1. Additional data reduction filters were also tested, but were not retained, due to lack a consistency with filters used in our Study One. Therefore, additional data filters were not added.

After data reduction filters, a total of 467 participations (38,1% female, Mage = 37.56) were used for further data analysis, using SPSS.

Manipulation check

A simple t-test revealed that participants assigned to the gender inclusive condition perceived the image they viewed as more gender inclusive ($M = 2.59$, $SD = 1.923$) than participants in the gender non-inclusive condition ($M = 5.65$, $SD = 1.815$, $t(465) = 17.689$, $p < 0.0001$).

Reliability analysis

Reliability analyses were performed on multi-item constructs. The construct of ad liking, made up of three items was first analyzed. Cronbach's alpha for the 3-items construct was 0.937, exceeding the good reliability indicator of 0.8. Item-total statistics indicated lower reliability if one of the items was deleted. See all results from Study 2 in Appendix E (Table E.1).

Reliability analysis performed on the four items for purchase intention gave a Cronbach's alpha score of 0.968. Item-total statistics indicated higher reliability if item 1 was removed, although all scores are still exceeding the 0.8 good reliability indicator (0.951 to 0.974) (Table E.2) and therefore all 4 items are kept for analysis.

An additional reliability analysis performed on the three items assessing perceived competence resulted in a Cronbach's alpha score of 0.907. Item-total statistics indicated lower reliability if one of the items was deleted (Table E.3).

Finally, reliability analysis was performed on the construct of fit of the ad with the video game industry, loading on three items, which gave us a Cronbach's alpha of 0.880 (>0.5) and item-total statistics indicated that any item removed would lower the Cronbach's alpha (Table E.4).

Factor analysis

Factor analyses were conducted to evaluate if all the items within our multiple-items constructs should be kept.

First, for the ad liking construct consisting of 3 items, correlation matrix indicated all values to be above the 0.5 recommended cut-off. The Kaiser-Meyer-Olkin measure of sampling adequacy was 0.751, above the recommended value of 0.6, and the Bartlett's Test of Sphericity was significant ($\chi^2(3) = 1257.533$, $p < 0.01$). Communalities scores indicated all items accounted for high impact on variance (> 0.80), and all the items had high factor loading (>0.92), well above the 0.5 recommended value. Based on these results, all items were kept for the construct ad liking (Table E.5).

Second, for the purchase intention construct consisting of four items, correlation matrix indicated all values to be above the 0.5 recommended cut-off. The Kaiser-Meyer-Olkin measure of sampling adequacy was 0.868, above the recommended value of 0.6, and the Bartlett's Test of Sphericity was significant ($\chi^2(6) = 2592.623$, $p = .000$). Communalities scores indicated all items accounted for high impact on variance (> 0.85), and all the items had high factor loading (>0.92), above the 0.5 recommended value. Based on these results, all items were kept for the construct ad liking (Table E.6).

Next, for the construct of perceived competence consisting of three items, the correlation matrix indicated that all values were above the 0.5 recommended cut-off. The Kaiser-Meyer-Olkin measure of sampling adequacy was 0.747 (>0.6) and the Bartlett's Test of Sphericity was significant ($\chi^2(3) = 938.704$, $p < 0.001$). Communalities scores indicated all items accounted for high impact on variance (> 0.81), and all the items had high factor loading (>0.90), indicating the items loaded on the same construct. Based on these results, all items were kept for this construct (Table E.7).

Lastly, for the construct of fit of the ad with the video game industry consisting of three items, the correlation matrix indicated values above the 0.5 cut-off (>0.64). The Kaiser-Meyer-Olkin measure of sampling adequacy was 0.725 (>0.6) and the Bartlett's Test of Sphericity was significant ($\chi^2(3) = 770.794, p < 0.001$). Communalities scores indicated all items accounted for impact on variance (> 0.76), and all the items had high factor loading (>0.87), above the 0.5 recommended value. Based on these results, all items were kept (Table E.8).

Analysis of interaction between gender and condition (testing hypotheses)

We first conducted an ANOVA (Ad gender inclusivity x Gender) to see if the results from Study 1 were replicated, and to see if a significant interaction could be found on our other dependent variables.

The first set of analyses included the dichotomous gender variable (male, female). An ANOVA on the dependent variable Ad Liking (3 items) revealed a significant main effect of Gender Ad inclusivity ($F(1, 463) = 24.390, p < 0.01$), but a non-significant interaction ($F(1, 463) = 1.304, p = 0.254$). Pairwise contrasts revealed no significant contrasts between the gender inclusivity conditions ($ps > 0.30$) (see Table E.13). In other words, in the gender inclusive condition, male participants reported similar liking of the ad ($M = 5.17, SD = 1.296$) as female participants ($M = 5.35, SD = 1.246$). Similarly, in the gender non-inclusive condition, male participants reported similar liking of the ad ($M = 4.66, SD = 1.600$) as female participants ($M = 4.52, SD = 1.567$). Further contrast analyses revealed that both male and female participants preferred the inclusive versus non-inclusive ad ($ps < 0.01$). Plotting of data (Figures C.1) indicated an interesting, but insignificant mean pattern where females reported lower than males liking of the ad in the gender non-inclusive condition but reported higher than males liking of the ad in the gender inclusive condition. Study 2 was not able to replicate our support for H1a.

An ANOVA on the dependent variable Purchase intention (4-items) (Figure C.2), revealed a significant main effect of ad gender inclusivity ($F(1, 463) = 6.286, p = 0.013$), but a non-

significant interaction ($F(1) = 0.552, p = 0.458$) (Table E.13). Pairwise contrasts revealed no significant contrasts between the gender inclusivity conditions ($ps > 0.40$) (see Table E.14). In other words, in the gender inclusive condition, male participants reported similar purchase intention ($M = 3.96, SD = 1.654$) compared to female participants ($M = 4.02, SD = 1.585$). Similarly, in the gender non-inclusive condition, male participants reported similar behavioral intention ($M = 3.67, SD = 1.815$) compared to female participants ($M = 3.49, SD = 1.791$). Further contrast analyses revealed that female participants reported higher purchase intentions after seeing the inclusive versus non-inclusive stimuli ($F(1, 463) = 4.254, p = 0.04$), while male participants did not report differentiated purchase intentions across the gender inclusive conditions ($p = 0.153$). H1b is not supported.

In the second set of analyses, we used the continuous gender identity measure as an independent variable (instead of the dichotomous (male / female) variable). A spotlight analysis (Hayes, model 1) was conducted using gender as a continuous moderating variable (1 = Very Feminine, 7 = Very Masculine). The analysis showed no significant main effects or interaction of ad gender inclusivity x gender on ad liking ($ps > 0.244$). Similarly, we found no significant main effects or interaction on purchase intentions ($ps > 0$).

We conducted additional analyses by examining several covariates: video game familiarity, perception of gender inclusivity and perception of video game industry's gender, but inclusion of these variables as covariates did not improve our results.

Moderated – Mediation Analysis

First, we ran an ANOVA on the dependent variable perceived competence (3-items loading). The results, and visual plotting (Figure C.3), revealed a significant main effect of gender inclusivity ($F(1, 463) = 5.074, p = 0.025$) and gender ($F(1, 463) = 6.367, p = 0.012$), but no significant interaction between the ad gender inclusiveness x gender ($F(1, 463) = 0.987, p = 0.321$). Pairwise contrasts revealed that in the gender inclusivity condition, male participants perceived the people in the image as less competent ($M = 3.57, SD = 1.162$) than female participants ($M = 4.09, SD = 1.379, F(1, 463) = 6.504, p = 0.011$). This contrast was however not apparent in the gender non-inclusive condition ($M_{\text{male}} = 4.05, SD_{\text{male}} = 1.633, M_{\text{female}} = 4.27, SD_{\text{female}} = 1.442, F(1,463) = 1.116, p = 0.291$). Further contrast analyses revealed that male participants reported higher perceived competence after seeing the non-inclusive versus inclusive image ($F(1, 463) = 6.944, p = 0.009$), while female participants did not report differentiated perceived competence across the gender inclusive conditions ($p = 0.425$). (Table E.15).

Given that we found no significant interaction effects, we concluded that the moderated mediation on ad liking and purchase intentions were going to be insignificant (H2a and H2b are rejected). However, in the spirit of exploration, we wanted to see whether perceived competence could explain the findings that female consumers report higher purchase intentions after seeing the inclusive versus non-inclusive ad. To test this, we conducted a Hayes PROCESS mediation analysis (model 4; Figure C.5.1) with ad gender inclusivity as the independent variable, purchase intention as the dependent variable and perceived competence as the mediator. The mediation analysis was conducted with a confidence interval of 95, 5000 bootstrap samples and conditioning values at the 16th, 50th and 84th percentiles. Results confirmed a significant direct effect of ad gender inclusivity on purchase intention for the female sample ($b = 0.649, p = 0.003$), but failed to find a significant effect of condition on perception of competence ($b = -0.186, p = 0.318$). Total indirect effect indicates lack of mediation ($b = 0.649, CI [-0.381 - 0.153]$), and therefore this model is rejected.

We conducted additional analyses by including several covariates: hours spend gaming per week, familiarity with gaming brands and products, perceived relevance to include inclusivity in today's marketing communication, video game sexism, and English proficiency, but inclusion of these variables as covariates did not improve our results.

Additional Analyses

Role of Perceived Fit of Ad with Gaming Industry

An ANOVA on the dependent variable Perceived Fit (3-items) revealed a marginally significant main effect of ad gender inclusivity ($F(1,463) = 3.583, p = 0.059$), but more importantly, the analysis revealed a significant interaction between ad gender inclusivity x consumer gender on perceived fit ($F(1, 463) = 3.970, p = 0.047$) (Figure C.4). Pairwise contrasts revealed that female participants perceived stronger fit of ad with gaming industry in the gender inclusive ($M = 4.70, SD = 1.311$) versus non-inclusive condition ($M = 4.16, SD = 1.501, F(1, 463) = 6.081, p = 0.014$) (Table E.15). These findings offers an alternative explanation why female participants reported higher behavioral intentions toward the advertised subscription in the gender inclusive versus non-inclusive condition. Specifically, females might view the gaming industry as more inclusive, and that is why they are more persuaded by the gender inclusive ad. Further contrast analyses revealed that male participants did not report significantly different perceptions of fit across the two gender inclusive ($M = 4.49, SD = 1.483$) versus non-inclusive conditions ($M = 4.50, SD = 1.521, F(1, 463) = 0.007, p = 0.936$).

To test for the mediating role of Perceived Fit, we conducted a mediation analysis (Hayes PROCESS analysis - model 4; Figure C.5.2) with ad gender inclusivity as the independent variable, purchase intention as the dependent variable and perceived fit as the mediator. Results confirmed a significant direct effect of ad gender inclusivity on purchase intention for the female sample ($b = 0.129, p = 0.050$), but failed to find a significant effect of condition on perceived fit ($b = 0.001,$

$p = 0.993$). Total indirect effect indicates lack of mediation ($b = 0.0004$, CI $[-0.083 - 0.083]$), and therefore this model is rejected.

General Discussion

Summary of findings

The purpose of this research was to investigate the effects of gender inclusivity in video game advertisement on male versus female consumer ad liking and behavioral intentions. Additionally, this research sought to explore if in the male dominated industry of video game, the effects of gender inclusivity were mediated by the perception of low competence of female players, similarly to the well-researched male dominated industry of sports. Findings from Study 1 revealed that male respondents reported more unfavorable liking of video game ads that female models compared to female respondents. These results, confirming our hypothesis H1a, but this finding was not replicated in our subsequent, study 2. In neither study did we find any effects of the interplay of ad gender inclusiveness and respondent gender on behavioral intentions. However, in Study 2, female participants reported a higher purchase intention in the ad gender inclusive (versus non-inclusive) condition, indicating that gender inclusive advertisement might be beneficial when targeting the female population. Furthermore, in Study 2 we examined the roles of perceived competence and perceived fit of ad with the gaming industry, and while some preliminary findings indicate that these constructs might play a role in this model, no conclusive findings were obtained. Further research is warrant to explore these constructs in more depth.

Theoretical and Managerial Contributions

While our findings were not consistent between experiments, our first study did replicate the findings from the sports industry, indicating that males tend to like gaming ads

less if they include female players in this male dominated industry. Unfortunately, study 2 did yield less significant results. While both males and females reported liking the gender inclusive ad more than the gender non-inclusive ad, one of our contrast analysis indicated a significant lower perception of competence from males when primed with the gender inclusive stimuli, which is consistent with the sports literature. Another significant contrast also supported that females exhibit lower behavioral intentions when presented with gender non-inclusive (versus inclusive) ad.

All in all, the totality of these results indicate that although males are still stand offish to the presence of females in gaming marketing communications, female consumers seem to respond more positively to gender inclusivity in ads. Theoretically, these findings bring forth insight that was not researched before, and many of our inconclusive findings indicate that this is a path of research that remains to be explored. Practically, our findings suggest that marketers in the video game industry need to be cautious when advertising to the diverse markets. If they are serious about attracting the female consumer, they should employ targeted advertisement and design gender-inclusive ads for the female market, while potentially include more subtle changes pertaining to gender inclusivity when designing ads for the male market, to avoid any drastic backlash from their core consumers.

Limitations and future research

This study faced several limitations that could be addressed in future research. This study did a pretest in order to evaluate the stimuli's perceived gender inclusivity. However, our stimuli were not consistently ethnic inclusive: i.e., the gender inclusive ad also included ethnic diversity, while the gender non-inclusive ad did not. Future research should attempt to minimize this confound by using stimuli that are more homogenous on all aspects, except gender inclusivity.

Future research could also benefit from using a sample of gamers. It is possible that the samples used in the current research were simply not sufficiently invested in the gaming industry

to experience an authentic like or dislike of the ads and/or behavioral intentions, which could have attenuated our findings. A gamer sample would likely produce more significant results and be more representative of who these ads are designed to target. Additionally, using a sample of respondents familiar with the industry might allow us to understand better what drives the consumers' decisions to purchase video game subscriptions. Indeed, purchase intention of a video game subscription might be driven by additional factors –beyond liking of the ad, such as price, specific perks offered by subscription, brand loyalty, etc. Future research would benefit from understanding the main driving factor for purchasing these subscriptions.

Since the results from Study 1, in which our hypothesis H1a was supported, was not replicated in Study 2, we conclude that the age difference between the samples might have been the key differentiating factor that impacted our results. Additional analyses on the gaming expertise of our sample could not be conducted since the measure of gaming familiarity was not consistent throughout both our studies (familiarity with the online subscriptions for Study 1, versus familiarity with the industry as a whole in Study 2). Our student sample did give us a much stronger effect, suggesting that the reasons driving a lower reported ad liking for males in the gender inclusive stimuli might be linked to the generational difference in gaming familiarity. Indeed, our results suggest that a group almost exclusively consisting of Gen Z respondents ($M_{\text{age Study 1}} = 21.43$ vs $M_{\text{age Study 2}} = 37.65$), although more aware of the sensitivity of gender inclusivity, might have responded in a more honest way than the participants of Study 2, which were more heterogenous in age. We suggest that this might be due to the fact that our respondents from Study 2 belong to generations currently accused of perpetrating an unfair and unequal vision of the normality. Knowing so, future research might want to measure and control for socially desirable responding, given that the topic of inclusivity and gender equality represent controversial issues.

Further, supplemental constructs could be investigated to establish a more comprehensive picture of how gender inclusivity in ads impact consumer outcomes. For example, the concept of self-identification with the ad endorsers or brand could be explored as an additional moderator.

The concept of self-congruity, in which the consumer self-identifies with the person presented in the ad, might modulate consumer responses through a more acute perception of gender inclusivity. Future research would benefit from including and measuring self-congruity or self-identification of the participants with the people in the ad presented to better examine its effects on consumer responses to gender inclusive versus non-inclusive ads in the gaming industry.

In our studies, we used anonymous brands to avoid the construct of brand love, or brand familiarity. Future research could use real brands to see if gender inclusivity in ads for actual brands would produce stronger results. This could also provide for interesting managerial findings, since that would replicate more accurately the actual video game market, where consumers generally form strong attachments and emotional bonds with their beloved gaming brands.

Finally, regarding gender identity, in our study, we tested the relevance of the BSRI using a compounded value as a unidimensional construct, which did not correlate to how consumers self-reported their gender. However, additional research (Fernandes & Coelleo, 2010) has supported the validity of the BSRI as a multidimensional construct, where respondents can score either high or low on each of the masculinity and femininity dimensions, classifying the genders as masculine, feminine, undifferentiated, or androgynous. Knowing so, calculating the BSRI properly might have been a way to measure gender that would have potentially yielded more significance and accurate results.

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Appendices

Appendix A: Pretest Detailed Results

	Gender Inclusive Ads		Gender Non-Inclusive Ads		Test of Within-subject contrasts	Between-subject effects
	Ad 1	Ad2	Ad3	Ad4		
Perceived Gender Inclusivity	M= 5.57, SD = 1.54	M= 5.81, SD = 1.13	M= 2.64, SD = 1.63	M= 2.54, SD = 1.41	F = 0.395, p = 0.532	F = 99.165, p < 0.001
Liking	M= 3.24, SD = 1.23	M= 3.05, SD = 0.97	M= 3.18, SD = 0.91	M= 3.36, SD = 0.90	F = 0.02, p = 0.962	F = 0.333, p = 0.566
Perceived Excitement	M= 4.73, SD = 1.33	M= 4.97, SD = 1.09	M= 4.54, SD = 1.05	M= 4.59, SD = 1.07	F = 2.23, p = 0.140	F = 1.413, p = 0.238
Perceived Persuasiveness	M= 4.49, SD = 1.24	M= 4.65, SD = 1.09	M= 4.64, SD = 0.87	M= 4.62, SD = 1.07	F = 0.279, p = 0.599	F = 0.084, p = 0.773

Appendix B: Study 1 Questionnaire

B.1 – Gender Identity Measure

STUDY 1

In the last decade, consumer gender-identity has evolved from a binary state to a fluid construct. Along with this change, consumers are showing different consumption habits. As marketers are trying to adapt, they are trying to pinpoint what daily habits are directly impacted by consumers self-identities.

To what extent do you presently identify as feminine and/or masculine?

Very feminine (1) (2) (3) Neither or both (4) (5) (6) Very masculine (7)

In the next year, do you anticipate that your spending on _____ will decreased or increased?

	decreased a lot (1)	(2)	(3)	will not change (4)	(5)	(6)	increased a lot (7)
Groceries	<input type="radio"/>						
Restaurants	<input type="radio"/>						
Electronics	<input type="radio"/>						
Household supplies	<input type="radio"/>						
Pet supplies	<input type="radio"/>						
Transportation	<input type="radio"/>						
Hobbies/Recreational activities	<input type="radio"/>						
Clothing and accessories	<input type="radio"/>						

Please answer the following questions about your purchases of the last week

Over the last 7 days, please indicate if you've made purchases from the following categories:

- | | |
|---|--|
| <input type="checkbox"/> Groceries | <input type="checkbox"/> Pet supplies |
| <input type="checkbox"/> Restaurant | <input type="checkbox"/> Transportation |
| <input type="checkbox"/> Electronics | <input type="checkbox"/> Hobbies / Recreational activities |
| <input type="checkbox"/> Household supplies | <input type="checkbox"/> Clothing and accessories |

B.2 - Gender Inclusivity Manipulation

STUDY 2

We are collaborating with a big video game company that is considering launching a new ad campaign for their subscription service (which offers the ability to play online, free access to big databases of games to download, and free access to exclusive titles). The company is seeking the market's opinion on some images they have selected to appear in their national advertising campaign.

We will now be showing you one of the sample images to be used in their advertisement. Look carefully at the picture and we will ask you a few questions about it.

B.3 – Ad Liking Items

Consumer Attitude toward Ad Study

We are collaborating with a big video game company that is considering launching a new ad campaign for their subscription service (which offers the ability to play online, free access to big databases of games to download, and free access to exclusive titles). The company is seeking the market's opinion on some images they have selected to appear in their national advertising campaign.

We will now be showing you one of the sample images to be used in their advertisement. Look carefully at the picture below and answer the following questions honestly.



How would you rate your feelings towards this ad?

Bad (1)	(2)	(3)	(4)	(5)	(6)	Good (7)
<input type="radio"/>						

How appealing did you find this ad?

Unappealing (1)	(2)	(3)	(4)	(5)	(6)	Appealing (7)
<input type="radio"/>						

How pleasant was this ad?

Unpleasant (1)	(2)	(3)	(4)	(5)	(6)	Pleasant (7)
<input type="radio"/>						

How favorable are you towards this ad?

Favorable (1)	(2)	(3)	(4)	(5)	(6)	Unfavorable (7)
<input type="radio"/>						

How likeable would you say this ad is?

Unlikable (1)	(2)	(3)	(4)	(5)	(6)	Likable (7)
<input type="radio"/>						

B.4 – Purchase Intention Items

After seeing this ad, how motivated would you be to seek more information about the promoted subscription?

Unmotivated (1)	(2)	(3)	(4)	(5)	(6)	Motivated (7)
<input type="radio"/>						

After seeing the ad, would you see yourself purchasing a subscription?

Not at all (1)	(2)	(3)	(4)	(5)	(6)	Definitely (7)
<input type="radio"/>						

After seeing this ad, how probable is it that you would purchase a subscription to this service?

Definitely not probable (1)	(2)	(3)	(4)	(5)	(6)	Definitely probable (7)
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

How much would you be willing to pay monthly for the subscription shown in the ad (Cdn\$) ?

What would you say your purchase interest towards this service is after seeing this ad?

Very low purchase interest (1)	(2)	(3)	(4)	(5)	(6)	Very high purchase interest (7)
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

After seeing this ad, how likely would you be to buy the promoted subscription?

Would definitely buy it (1)	(2)	(3)	(4)	(5)	(6)	Would definitely not buy it (7)
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

B.5 – Attention Check

SPORTS PARTICIPATION

Most modern theories of decision making recognize the fact that decisions do not take place in a vacuum. Individual preferences and knowledge, along with situational variables can greatly impact the decision process. In order to facilitate our research on decision making we are interested in knowing certain factors about you, the decision maker. Specifically, we are interested in whether you actually take the time to read the directions; if not, then some of our manipulations that rely on changes in the instructions will be ineffective. So, in order to demonstrate that you have read the instructions, please ignore the question and select curling instead.

**Which of these activities do you engage in regularly?
(click all that apply)**

- | | |
|---------------------------------------|---|
| <input type="checkbox"/> Skiing | <input type="checkbox"/> Swimming |
| <input type="checkbox"/> Soccer | <input type="checkbox"/> Tennis |
| <input type="checkbox"/> Snowboarding | <input type="checkbox"/> Curling |
| <input type="checkbox"/> Running | <input type="checkbox"/> Basketball |
| <input type="checkbox"/> Hockey | <input type="checkbox"/> Cycling |
| <input type="checkbox"/> Football | <input type="checkbox"/> None of these, I prefer:
<input type="text"/> |

B.6 – Manipulation Check and Controls

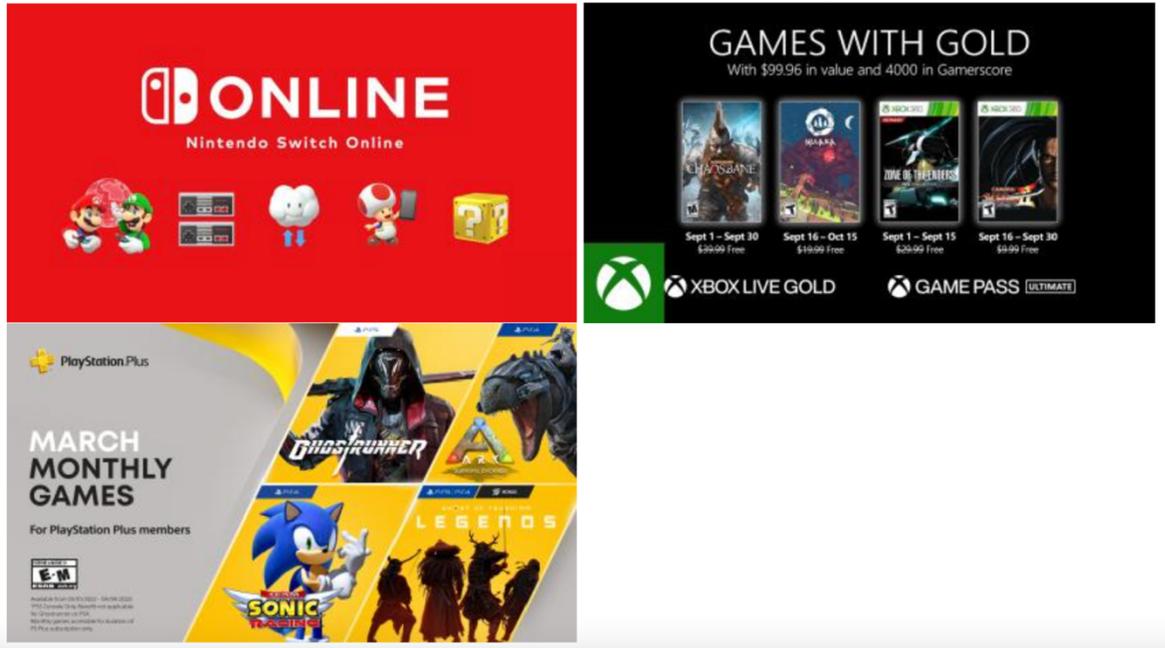
Recall the ad you've seen for the gaming subscription. To what extent did you perceive it as gender inclusive?

Very gender inclusive (1) (2) (3) (4) (5) (6) Not gender inclusive at all (7)

Do you own any gaming consoles? If so, list them all below

How many hours per week do you dedicate to gaming?

Video game companies are diversifying their services and now offer subscriptions



All these subscriptions have the following benefits :

- Being able to play online
- Free access to a big database of games to download
- For some of them, free access to exclusive titles

How familiar are you with these subscriptions?

	Not familiar at all	Slightly familiar	Moderately familiar	Very familiar	Extremely familiar
Nintendo Switch Online	<input type="radio"/>				
XBOX Live Gold	<input type="radio"/>				
PlayStation Plus	<input type="radio"/>				

Are you currently subscribed to one or more of these monthly gaming subscriptions? Indicate which ones (you can check more than one answer)

- Nintendo Switch Online
- Playstation Plus
- Xbox Live Gold
- I am not subscribed to any gaming membership

Do you associate gaming with masculinity or femininity?

- Masculinity (1) (2) (3) Neither or both (4) (5) (6) Femininity (7)
-

Do you think it's relevant for marketers to include gender diversity in their ads?

- Very relevant (1) (2) (3) (4) (5) (6) Very irrelevant (7)
-

B.7 – Demographics

What is your gender?

- Male
- Female

How old are you?

What is your student ID - for credit assignment purposes.

Please indicate your English-language proficiency level:

- I understand, read and speak the language perfectly
- I understand, read and speak the language very well, I rarely don't understand something
- I understand, read and speak the language ok, I always understand the context but have trouble understanding every word in a conversation
- I understand, read and speak the language poorly, I have a lot of trouble understanding the language

These are the last questions of this survey. You will receive the promised payment for your participation regardless of your answers to the following questions.

These questions are purposed to help researchers analyze the data efficiently. Your honesty is appreciated.

Did you experience any technical issues while completing the survey?

- Yes I did
- No I did not

Did you experience any distractions or interruptions while completing the survey?

- Yes I did
- No I did not

Did you browse on the web during your participation to the survey?

Again, your answer will not affect your compensation.

- Yes I did
- No I did not

Should we use the data you provided in our analyses?

- Yes
- No

Do you have any comments for the researchers (optional)?

Thank you for your participation.

Your responses have been recorded.
You may now close the browser.

You should be getting your credit by the end of the study period - i.e., April 1st

Appendix C: Statistical Analysis Results, Study One

Table C.1 – Reliability Analysis of Ad Liking Evaluation Scale

Case Processing Summary				Reliability Statistics		Scale Statistics			
Cases		N	%	Cronbach's Alpha	N of Items	Mean	Variance	Std. Deviation	N of Items
Cases	Valid	195	99.0	.859	5	21.32	38.859	6.234	5
	Excluded ^a	2	1.0						
	Total	197	100.0						
a. Listwise deletion based on all variables in the procedure.									

Item Statistics				Item–Total Statistics				
	Mean	Std. Deviation	N		Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item–Total Correlation	Cronbach's Alpha if Item Deleted
Like_1	4.81	1.523	195	Like_1	16.51	24.437	.804	.797
Like_2	3.38	1.550	195	Like_2	17.94	24.105	.812	.794
Like_3	4.61	1.544	195	Like_3	16.72	23.564	.861	.781
Like_4_rev	3.87	1.654	195	Like_4_rev	17.46	32.703	.181	.950
Like_5	4.66	1.519	195	Like_5	16.66	23.916	.850	.785

Table C.2 – Reliability Analysis of Purchase Intention Evaluation Scale

Case Processing Summary				Reliability Statistics		Scale Statistics			
Cases		N	%	Cronbach's Alpha	N of Items	Mean	Variance	Std. Deviation	N of Items
Cases	Valid	196	99.5	.749	5	15.80	44.119	6.642	5
	Excluded ^a	1	.5						
	Total	197	100.0						
a. Listwise deletion based on all variables in the procedure.									

Item Statistics				Item–Total Statistics				
	Mean	Std. Deviation	N		Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item–Total Correlation	Cronbach's Alpha if Item Deleted
PI_1	3.19	1.936	196	PI_1	12.61	33.204	.321	.774
PI_2	3.33	2.342	196	PI_2	12.47	23.491	.667	.641
PI_3	2.81	1.595	196	PI_3	12.99	28.759	.749	.632
PI_4	2.89	1.570	196	PI_4	12.91	29.068	.743	.636
PI_5_rev	3.57	1.854	196	PI_5_rev	12.23	35.511	.234	.799

Table C.3 – Factor Analysis for Liking of the ad (5-items)

Correlation Matrix

		Like_1	Like_2	Like_3	Like_4_rev	Like_5
Correlation	Like_1	1.000	.804	.821	.127	.823
	Like_2	.804	1.000	.832	.155	.804
	Like_3	.821	.832	1.000	.197	.866
	Like_4_rev	.127	.155	.197	1.000	.195
	Like_5	.823	.804	.866	.195	1.000

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.867
Bartlett's Test of Sphericity	Approx. Chi-Square	783.141
	df	10
	Sig.	<.001

Total Variance Explained

Component	Total	Initial Eigenvalues		Extraction Sums of Squared Loadings		
		% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.520	70.400	70.400	3.520	70.400	70.400
2	.959	19.176	89.576			
3	.203	4.058	93.634			
4	.189	3.774	97.408			
5	.130	2.592	100.000			

Extraction Method: Principal Component Analysis.

Communalities

	Initial	Extraction
Like_1	1.000	.845
Like_2	1.000	.844
Like_3	1.000	.891
Like_4_rev	1.000	.062
Like_5	1.000	.878

Extraction Method: Principal Component Analysis.

Component Matrix^a

	Component 1
Like_1	.919
Like_2	.919
Like_3	.944
Like_4_rev	.249
Like_5	.937

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

Table C.4 – Factor Analysis for Liking of the ad (4-items)

Correlation Matrix

		Like_1	Like_2	Like_3	Like_5
Correlation	Like_1	1.000	.800	.822	.823
	Like_2	.800	1.000	.822	.791
	Like_3	.822	.822	1.000	.866
	Like_5	.823	.791	.866	1.000

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.864
Bartlett's Test of Sphericity	Approx. Chi-Square	777.287
	df	6
	Sig.	<.001

Total Variance Explained

Component	Total	Initial Eigenvalues		Extraction Sums of Squared Loadings		
		% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.463	86.575	86.575	3.463	86.575	86.575
2	.217	5.427	92.003			
3	.191	4.774	96.777			
4	.129	3.223	100.000			

Extraction Method: Principal Component Analysis.

Communalities

	Initial	Extraction
Like_1	1.000	.856
Like_2	1.000	.840
Like_3	1.000	.891
Like_5	1.000	.876

Extraction Method: Principal Component Analysis.

Component Matrix^a

	Component 1
Like_1	.925
Like_2	.916
Like_3	.944
Like_5	.936

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

Table C.5 – Factor Analysis for Purchase Intention (5-items)

Correlation Matrix

		PI_1	PI_2	PI_3	PI_4	PI_5_rev
Correlation	PI_1	1.000	.229	.351	.281	.174
	PI_2	.229	1.000	.759	.763	.200
	PI_3	.351	.759	1.000	.819	.143
	PI_4	.281	.763	.819	1.000	.191
	PI_5_rev	.174	.200	.143	.191	1.000

Communalities

	Initial	Extraction
PI_1	1.000	.222
PI_2	1.000	.777
PI_3	1.000	.842
PI_4	1.000	.831
PI_5_rev	1.000	.101

Extraction Method: Principal Component Analysis.

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.762
Bartlett's Test of Sphericity	Approx. Chi-Square	455.313
	df	10
	Sig.	<.001

Total Variance Explained

Component	Total	Initial Eigenvalues		Extraction Sums of Squared Loadings		
		% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.774	55.474	55.474	2.774	55.474	55.474
2	.982	19.643	75.117			
3	.820	16.396	91.514			
4	.250	4.992	96.506			
5	.175	3.494	100.000			

Extraction Method: Principal Component Analysis.

Component Matrix^a

Component
1

PI_1	.471
PI_2	.882
PI_3	.918
PI_4	.912
PI_5_rev	.318

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

Table C.6 – Factor Analysis for Purchase Intention (3-items)

Correlation Matrix

		PI_2	PI_3	PI_4
Correlation	PI_2	1.000	.760	.763
	PI_3	.760	1.000	.820
	PI_4	.763	.820	1.000

Communalities

	Initial	Extraction
PI_2	1.000	.825
PI_3	1.000	.867
PI_4	1.000	.869

Extraction Method: Principal Component Analysis.

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.562	85.392	85.392	2.562	85.392	85.392
2	.258	8.598	93.990			
3	.180	6.010	100.000			

Extraction Method: Principal Component Analysis.

Component Matrix^a

	Component 1
PI_2	.908
PI_3	.931
PI_4	.932

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

Table C.7 – Two-way ANOVA on Ad Liking (4 items)

Between-Subjects Factors

	Value Label	N
Dem_gnd	1 Male	99
	2 Female	101
Condition	1.00 Non inclusive	102
	2.00 Inclusive	98

Descriptive Statistics

Dependent Variable: Like_avg4

Dem_gnd	Condition	Mean	Std. Deviation	N
Male	Non inclusive	4.4515	1.41300	55
	Inclusive	3.7500	1.54393	44
	Total	4.1397	1.50626	99
Female	Non inclusive	4.4787	1.10314	47
	Inclusive	4.6296	1.48954	54
	Total	4.5594	1.31963	101
Total	Non inclusive	4.4641	1.27354	102
	Inclusive	4.2347	1.56920	98
	Total	4.3517	1.42711	200

Tests of Between-Subjects Effects

Dependent Variable: Like_avg4

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	21.407 ^a	3	7.136	3.643	.014
Intercept	3712.713	1	3712.713	1895.591	<.001
Dem_gnd	10.190	1	10.190	5.203	.024
Condition	3.757	1	3.757	1.918	.168
Dem_gnd * Condition	9.004	1	9.004	4.597	.033
Error	383.886	196	1.959		
Total	4192.694	200			
Corrected Total	405.294	199			

a. R Squared = .053 (Adjusted R Squared = .038)

Estimates

Dependent Variable: Like_avg4

Condition	Dem_gnd	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Non inclusive	Male	4.452	.189	4.079	4.824
	Female	4.479	.204	4.076	4.881
Inclusive	Male	3.750	.211	3.334	4.166
	Female	4.630	.190	4.254	5.005

Table C.8 – Pairwise Simple Contrasts for Ad Liking
 Table C.8.1 – Contrast between gender of the respondents

Pairwise Comparisons

Dependent Variable: Like_avg4

Dem_gnd	(I) Condition	(J) Condition	Mean Difference (I-J)	Std. Error	Sig. ^b	95% Confidence Interval for Difference ^b	
						Lower Bound	Upper Bound
Male	Non inclusive	Inclusive	.702 [*]	.283	.014	.143	1.260
	Inclusive	Non inclusive	-.702 [*]	.283	.014	-1.260	-.143
Female	Non inclusive	Inclusive	-.151	.279	.589	-.701	.400
	Inclusive	Non inclusive	.151	.279	.589	-.400	.701

Based on estimated marginal means

*. The mean difference is significant at the .050 level.

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

Univariate Tests

Dependent Variable: Like_avg4

Dem_gnd		Sum of Squares	df	Mean Square	F	Sig.
	Error	383.886	196	1.959		
Female	Contrast	.572	1	.572	.292	.589
	Error	383.886	196	1.959		

Each F tests the simple effects of Condition within each level combination of the other effects shown. These tests are based on the linearly independent pairwise comparisons among the estimated marginal means.

Table C.8.2 – Contrast between conditions

Pairwise Comparisons

Dependent Variable: Like_avg4

Condition	(I) Dem_gnd	(J) Dem_gnd	Mean Difference (I-J)	Std. Error	Sig. ^b	95% Confidence Interval for Difference ^b	
						Lower Bound	Upper Bound
Non inclusive	Male	Female	-.027	.278	.922	-.575	.521
	Female	Male	.027	.278	.922	-.521	.575
Inclusive	Male	Female	-.880 [*]	.284	.002	-1.440	-.319
	Female	Male	.880 [*]	.284	.002	.319	1.440

Based on estimated marginal means

*. The mean difference is significant at the .050 level.

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

Estimates

Dependent Variable: Like_avg4

Condition	Dem_gnd	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Non inclusive	Male	4.452	.189	4.079	4.824
	Female	4.479	.204	4.076	4.881
Inclusive	Male	3.750	.211	3.334	4.166
	Female	4.630	.190	4.254	5.005

Univariate Tests

Dependent Variable: Like_avg4

Condition		Sum of Squares	df	Mean Square	F	Sig.
Non inclusive	Contrast	.019	1	.019	.010	.922
	Error	383.886	196	1.959		
Inclusive	Contrast	18.759	1	18.759	9.578	.002
	Error	383.886	196	1.959		

Each F tests the simple effects of Dem_gnd within each level combination of the other effects shown. These tests are based on the linearly independent pairwise comparisons among the estimated marginal means.

Table C.9 – Two-way ANOVA on Purchase Intention

Descriptive Statistics

Dependent Variable: PI_avg3

Dem_gnd	Condition	Mean	Std. Deviation	N
Male	Non inclusive	3.0121	1.55683	55
	Inclusive	3.0833	1.83157	44
	Total	3.0438	1.67592	99
Female	Non inclusive	2.8511	1.67362	47
	Inclusive	3.0617	1.74360	54
	Total	2.9637	1.70613	101
Total	Non inclusive	2.9379	1.60564	102
	Inclusive	3.0714	1.77436	98
	Total	3.0033	1.68747	200

Between-Subjects Factors

		Value Label	N
Dem_gnd	1	Male	99
	2	Female	101
Condition	1.00	Non inclusive	102
	2.00	Inclusive	98

Tests of Between-Subjects Effects

Dependent Variable: PI_avg3

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	1.560 ^a	3	.520	.180	.910	.003
Intercept	1786.747	1	1786.747	619.712	<.001	.760
Dem_gnd	.413	1	.413	.143	.705	.001
Condition	.985	1	.985	.341	.560	.002
Dem_gnd * Condition	.241	1	.241	.084	.773	.000
Error	565.105	196	2.883			
Total	2370.667	200				
Corrected Total	566.664	199				

a. R Squared = .003 (Adjusted R Squared = -.013)

Table C.10 – Pairwise Simple Contrasts for Purchase Intention

Table C.10.1 – Contrast between gender of the respondents

Estimates

Dependent Variable: PI_avg3

Condition	Dem_gnd	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Non inclusive	Male	3.012	.229	2.561	3.464
	Female	2.851	.248	2.363	3.340
Inclusive	Male	3.083	.256	2.578	3.588
	Female	3.062	.231	2.606	3.517

Pairwise Comparisons

Dependent Variable: PI_avg3

Dem_gnd	(I) Condition	(J) Condition	Mean Difference (I-J)	Std. Error	Sig. ^a	95% Confidence Interval for Difference ^a	
						Lower Bound	Upper Bound
Male	Non inclusive	Inclusive	-.071	.343	.836	-.749	.606
	Inclusive	Non inclusive	.071	.343	.836	-.606	.749
Female	Non inclusive	Inclusive	-.211	.339	.535	-.879	.457
	Inclusive	Non inclusive	.211	.339	.535	-.457	.879

Based on estimated marginal means

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

Univariate Tests

Dependent Variable: PI_avg3

Dem_gnd	Contrast	Sum of Squares	df	Mean Square	F	Sig.
Male	Contrast	.124	1	.124	.043	.836
	Error	565.105	196	2.883		
Female	Contrast	1.115	1	1.115	.387	.535
	Error	565.105	196	2.883		

Each F tests the simple effects of Condition within each level combination of the other effects shown. These tests are based on the linearly independent pairwise comparisons among the estimated marginal means.

Table C.10.2 – Contrast between conditions

Estimates

Dependent Variable: PI_avg3

Condition	Dem_gnd	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Non inclusive	Male	3.012	.229	2.561	3.464
	Female	2.851	.248	2.363	3.340
Inclusive	Male	3.083	.256	2.578	3.588
	Female	3.062	.231	2.606	3.517

Pairwise Comparisons

Dependent Variable: PI_avg3

Condition	(I) Dem_gnd	(J) Dem_gnd	Mean Difference (I-J)	Std. Error	Sig. ^a	95% Confidence Interval for Difference ^a	
						Lower Bound	Upper Bound
Non inclusive	Male	Female	.161	.337	.634	-.504	.826
	Female	Male	-.161	.337	.634	-.826	.504
Inclusive	Male	Female	.022	.345	.950	-.658	.702
	Female	Male	-.022	.345	.950	-.702	.658

Based on estimated marginal means

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

Table C.11 – Mediation effect of gender as a continuous variable on Purchase Intention

```

*****
OUTCOME VARIABLE:
  Condit

Coding of binary Y for logistic regression analysis:
  Condit  Analysis
    1.00   .00
    2.00   1.00

Model Summary
  -2LL      ModelLL      df      p      McFadden      CoxSnell      Nagelkrk
  240.4489   4.8714      3.0000   .1815   .0199         .0270         .0361

Model
      coeff      se      Z      p      LLCI      ULCI
constant  -.9482   .7707  -1.2304  .2186  -2.4588   .5623
PI_avg4   .2566   .1707   1.5035  .1327  -.0779   .5911
Gender1   .1994   .3122   .6387   .5230  -.4125   .8113
Int_1     -.0326   .0631  -.5163   .6056  -.1564   .0912

These results are expressed in a log-odds metric.

Product terms key:
Int_1      :      PI_avg4 x      Gender1

Likelihood ratio test(s) of highest order
unconditional interactions(s):
      Chi-sq      df      p
X*W     .2658     1.0000   .6062

```

Appendix D: Study 2 Supplementary Questions

D.1 – Perceived Competence measure

To what extent would you describe the video game competence of the people in the ad?

Not competent at all (1)	(2)	(3)	(4)	(5)	(6)	Very competent (7)
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

To what extent would you trust the video game opinion of the people in this ad?

Not trust at all (1)	(2)	(3)	(4)	(5)	(6)	Totally trust (7)
<input type="radio"/>						

To what extent do you perceive the people in the ad as "expert" gamers?

Not at all experts (1)	(2)	(3)	(4)	(5)	(6)	Very much experts (7)
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

D.2 – Control variables

We have a few more questions about the ad you saw on the previous slide.

To what extent did you perceive the ad as gender inclusive?

Very gender inclusive (1)	(2)	(3)	(4)	(5)	(6)	Not gender inclusive at all (7)
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

To what extent did you think the ad was representative of the video game market?

Not at all representative (1)	(2)	(3)	(4)	(5)	(6)	Very representative (7)
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

In your opinion, is the ad image suitably fitted (or appropriate) for the advertised product (i.e., video gaming subscription service)?

Not a fit at all (1)	(2)	(3)	(4)	(5)	(6)	Perfect fit (7)
<input type="radio"/>						

How credible is this ad in regards to the product it is advertising (i.e., video gaming subscription service)?

Not credible at all (1)	(2)	(3)	(4)	(5)	(6)	Very credible (7)	relevant (7)
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

D.3 – Consumer habits and videogaming profile

In this [last section](#), we will ask you a few questions about your own gaming experience and habits

How would you describe yourself as a "gamer"?

I'm not a gamer at all (1)	(2)	(3)	(4)	(5)	(6)	I'm an avid gamer (7)
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

How many hours per week do you dedicate to gaming?

How knowledgeable are you about the video game industry?

Not knowledgeable at all (1)	(2)	(3)	(4)	(5)	(6)	Very knowledgeable (7)
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

To what extent do you associate the video game industry to be feminine versus masculine?

Very feminine (1)	(2)	(3)	Neither or both (4)	(5)	(6)	Very masculine (7)
<input type="radio"/>						

D.4 – Video game sexism items + attention check

Please indicate your agreement level with the following popular beliefs about women and video games

	Strongly agree (1)	(2)	(3)	(4)	(5)	(6)	Strongly disagree (7)
Most women who play video games just do so with their boyfriends	<input type="radio"/>						
Most women who play video games are not very good at them	<input type="radio"/>						
Women who play video games are actually seeking special favors from men	<input type="radio"/>						
Women who play video games just do it to get the attention from men	<input type="radio"/>						
Women are too easily offended by what goes on in video games	<input type="radio"/>						
Women get too offended by the sexual comments in games	<input type="radio"/>						
Women are too sensitive about sex jokes and nude pictures of women that circulate in games	<input type="radio"/>						
In order to register your answer, please indicate (3)	<input type="radio"/>						
Women who call themselves gamer girls think they deserve a special treatment	<input type="radio"/>						
Having a woman play brings down the quality of the game	<input type="radio"/>						
If a woman plays with a team or a guild, she is almost always the weakest link	<input type="radio"/>						
Women can't handle trash talking in games like men can	<input type="radio"/>						
Having women around makes the game less fun	<input type="radio"/>						
Video games are a man's world, and women don't belong in it	<input type="radio"/>						
Women are more worried about socializing than anything else in a game	<input type="radio"/>						
Women prefer spending time dressing up their character rather than playing	<input type="radio"/>						
Women don't play games to kill or achieve	<input type="radio"/>						

Appendix E: Statistical Analysis Results, Study Two

Table E.1 – Reliability Analysis of Ad Liking Scale

Case Processing Summary

		N	%
Cases	Valid	466	99.8
	Excluded ^a	1	.2
	Total	467	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.937	3

Item–Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item–Total Correlation	Cronbach's Alpha if Item Deleted
How appealing is this ad?	10.12	8.350	.870	.911
How pleasant is this ad?	9.67	9.636	.843	.932
How likeable is this ad?	9.79	8.281	.906	.880

Table E.2 – Reliability Analysis of Purchase Intention Scale

Case Processing Summary

		N	%
Cases	Valid	467	100.0
	Excluded ^a	0	.0
	Total	467	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.968	4

Item–Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item–Total Correlation	Cronbach's Alpha if Item Deleted
After seeing the ad, how motivated would you be to seek more information about the promoted subscription?	11.16	26.938	.870	.974
After seeing the ad, do you see yourself purchasing a subscription to the advertised service?	11.45	26.848	.944	.951
After seeing the ad, how probable is it that you would purchase a subscription to this service?	11.48	26.744	.935	.954
After seeing the ad, how likely are you to buy the promoted subscription?	11.49	27.474	.937	.954

Table E.3 – Reliability Analysis of Competence Perceived of people in the ad Scale

Case Processing Summary

		N	%
Cases	Valid	465	99.6
	Excluded ^a	2	.4
	Total	467	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.907	3

Item–Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item–Total Correlation	Cronbach's Alpha if Item Deleted
To what extent would you describe the video game competence of the people in the ad?	7.48	10.655	.821	.862
To what extent would you trust the video game opinion of the people in this ad?	7.77	10.145	.842	.842
To what extent do you perceive the people in the ad as "expert" gamers?	8.46	9.831	.783	.896

Table E.4 – Reliability Analysis of Fit of the ad in the video game industry Scale

Case Processing Summary

		N	%
Cases	Valid	466	99.8
	Excluded ^a	1	.2
	Total	467	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.880	3

Item–Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item–Total Correlation	Cronbach's Alpha if Item Deleted
To what extent did you think the ad was representative of the video game market?	9.29	9.192	.730	.866
In your opinion, is the ad image suitably fitted (or appropriate) for the advertised product (i.e., video gaming subscription service)?	8.83	8.987	.820	.784
How credible is this ad in regards to the product it is advertising (i.e., video gaming subscription service)?	8.76	9.455	.757	.840

Table E.5 – Factor Analysis for Ad Liking (3-items)

Correlation Matrix

		How appealing is this ad?	How pleasant is this ad?	How likeable is this ad?
Correlation	How appealing is this ad?	1.000	.792	.873
	How pleasant is this ad?	.792	1.000	.841
	How likeable is this ad?	.873	.841	1.000
Sig. (1-tailed)	How appealing is this ad?		<.001	<.001
	How pleasant is this ad?	.000		.000
	How likeable is this ad?	.000	.000	

Communalities

	Initial	Extraction
How appealing is this ad?	1.000	.887
How pleasant is this ad?	1.000	.863
How likeable is this ad?	1.000	.921

Extraction Method: Principal Component Analysis.

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.751
Bartlett's Test of Sphericity	Approx. Chi-Square	1257.533
	df	3
	Sig.	<.001

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.671	89.037	89.037	2.671	89.037	89.037
2	.212	7.065	96.102			
3	.117	3.898	100.000			

Extraction Method: Principal Component Analysis.

Component Matrix^a

Component
1

How appealing is this ad?	.942
How pleasant is this ad?	.929
How likeable is this ad?	.960

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

Table E.6 – Factor Analysis for Purchase Intention (4-items)

Correlation Matrix

		After seeing the ad, how motivated would you be to seek more information about the promoted subscription?	After seeing the ad, do you see yourself purchasing a subscription to the advertised service?	After seeing the ad, how probable is it that you would purchase a subscription to this service?	After seeing the ad, how likely are you to buy the promoted subscription?
Correlation	After seeing the ad, how motivated would you be to seek more information about the promoted subscription?	1.000	.866	.836	.841
	After seeing the ad, do you see yourself purchasing a subscription to the advertised service?	.866	1.000	.922	.921
	After seeing the ad, how probable is it that you would purchase a subscription to this service?	.836	.922	1.000	.932
	After seeing the ad, how likely are you to buy the promoted subscription?	.841	.921	.932	1.000

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.868
Bartlett's Test of Sphericity	Approx. Chi-Square	2592.623
	df	6
	Sig.	.000

Communalities

Extraction

After seeing the ad, how motivated would you be to seek more information about the promoted subscription?	.855
After seeing the ad, do you see yourself purchasing a subscription to the advertised service?	.940
After seeing the ad, how probable is it that you would purchase a subscription to this service?	.932
After seeing the ad, how likely are you to buy the promoted subscription?	.934

Extraction Method: Principal Component Analysis.

Total Variance Explained

Component	Total	Initial Eigenvalues		Extraction Sums of Squared Loadings		
		% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.660	91.512	91.512	3.660	91.512	91.512
2	.194	4.852	96.364			
3	.078	1.955	98.318			
4	.067	1.682	100.000			

Extraction Method: Principal Component Analysis.

Component Matrix^a

	Component 1
After seeing the ad, how motivated would you be to seek more information about the promoted subscription?	.924
After seeing the ad, do you see yourself purchasing a subscription to the advertised service?	.970
After seeing the ad, how probable is it that you would purchase a subscription to this service?	.965
After seeing the ad, how likely are you to buy the promoted subscription?	.966

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

Table E.7 – Factor Analysis of Competence Perceived (3-items)

Correlation Matrix

		To what extent would you describe the video game competence of the people in the ad?	To what extent would you trust the video game opinion of the people in this ad?	To what extent do you perceive the people in the ad as "expert" gamers?
Correlation	To what extent would you describe the video game competence of the people in the ad?	1.000	.812	.731
	To what extent would you trust the video game opinion of the people in this ad?	.812	1.000	.759
	To what extent do you perceive the people in the ad as "expert" gamers?	.731	.759	1.000

Communalities

	Extraction
To what extent would you describe the video game competence of the people in the ad?	.852
To what extent would you trust the video game opinion of the people in this ad?	.871
To what extent do you perceive the people in the ad as "expert" gamers?	.812

Extraction Method: Principal Component Analysis.

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.747
Bartlett's Test of Sphericity	Approx. Chi-Square	938.704
	df	3
	Sig.	<.001

Total Variance Explained

Component	Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %
1	2.535	84.512	84.512

Extraction Method: Principal Component Analysis.

Component Matrix^a

	Component 1
To what extent would you describe the video game competence of the people in the ad?	.923
To what extent would you trust the video game opinion of the people in this ad?	.934
To what extent do you perceive the people in the ad as "expert" gamers?	.901

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

Table E.8 – Factor Analysis of Fit of the ad in the video game industry (3-items)

Correlation Matrix

		To what extent would you describe the video game competence of the people in the ad?	To what extent would you trust the video game opinion of the people in this ad?	To what extent do you perceive the people in the ad as "expert" gamers?
Correlation	To what extent would you describe the video game competence of the people in the ad?	1.000	.812	.731
	To what extent would you trust the video game opinion of the people in this ad?	.812	1.000	.759
	To what extent do you perceive the people in the ad as "expert" gamers?	.731	.759	1.000

Communalities

	Extraction
To what extent would you describe the video game competence of the people in the ad?	.852
To what extent would you trust the video game opinion of the people in this ad?	.871
To what extent do you perceive the people in the ad as "expert" gamers?	.812

Extraction Method: Principal Component Analysis.

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.747
Bartlett's Test of Sphericity	Approx. Chi-Square	938.704
	df	3
	Sig.	<.001

Component Matrix^a

	Component 1
To what extent would you describe the video game competence of the people in the ad?	.923
To what extent would you trust the video game opinion of the people in this ad?	.934
To what extent do you perceive the people in the ad as "expert" gamers?	.901

Total Variance Explained

Component	Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %
1	2.535	84.512	84.512

Extraction Method: Principal Component Analysis.

Extraction Method: Principal Component Analysis.
a. 1 components extracted.

Table E.9 – Two-way ANOVA on Ad Liking

Between-Subjects Factors

	Value Label	N
Condit	1.00 Non-inclusive	228
	2.00 Inclusive	239
What is your gender? - Selected Choice	1 Male	289
	2 Female	178

Descriptive Statistics

Dependent Variable: Like_avg

Condit	What is your gender? - Selected Choice	Mean	Std. Deviation	N
Non-inclusive	Male	4.6553	1.55978	147
	Female	4.5206	1.56644	81
	Total	4.6075	1.56003	228
Inclusive	Male	5.1714	1.29601	142
	Female	5.3471	1.24621	97
	Total	5.2427	1.27632	239
Total	Male	4.9089	1.45686	289
	Female	4.9710	1.45661	178
	Total	4.9325	1.45552	467

Tests of Between-Subjects Effects

Dependent Variable: Like_avg

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	49.811 ^a	3	16.604	8.201	<.001
Intercept	10626.520	1	10626.520	5248.502	<.001
Condit	49.381	1	49.381	24.390	<.001
Gender2	.046	1	.046	.023	.880
Condit * Gender2	2.641	1	2.641	1.304	.254
Error	937.425	463	2.025		
Total	12349.361	467			
Corrected Total	987.236	466			

a. R Squared = .050 (Adjusted R Squared = .044)

Table E.10 – Two-way ANOVA on Purchase Intention

Between-Subjects Factors

	Value Label	N
Condit	1.00 Non-inclusive	228
	2.00 Inclusive	239
What is your gender? - Selected Choice	1 Male	289
	2 Female	178

Descriptive Statistics

Dependent Variable: PI_avg4

Condit	What is your gender? - Selected Choice	Mean	Std. Deviation	N
Non-inclusive	Male	3.6684	1.81512	147
	Female	3.4877	1.79056	81
	Total	3.6042	1.80456	228
Inclusive	Male	3.9577	1.65483	142
	Female	4.0206	1.58470	97
	Total	3.9833	1.62366	239
Total	Male	3.8106	1.74124	289
	Female	3.7781	1.69764	178
	Total	3.7982	1.72299	467

Tests of Between-Subjects Effects

Dependent Variable: PI_avg4

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	18.703 ^a	3	6.234	2.115	.098
Intercept	6275.345	1	6275.345	2129.007	<.001
Condit	18.527	1	18.527	6.286	.013
Gender2	.380	1	.380	.129	.720
Condit * Gender2	1.626	1	1.626	.552	.458
Error	1364.713	463	2.948		
Total	8120.438	467			
Corrected Total	1383.416	466			

a. R Squared = .014 (Adjusted R Squared = .007)

Table E.11 – Two-way ANOVA on Competence Perceived

Between-Subjects Factors

	Value Label	N
Condit	1.00 Non-inclusive	228
	2.00 Inclusive	239
What is your gender? - Selected Choice	1 Male	289
	2 Female	178

Descriptive Statistics

Dependent Variable: Comp_avg

Condit	What is your gender? - Selected Choice	Mean	Std. Deviation	N
Non-inclusive	Male	4.0476	1.63392	147
	Female	4.2737	1.44225	81
	Total	4.1279	1.56905	228
Inclusive	Male	3.5681	1.61737	142
	Female	4.0876	1.37880	97
	Total	3.7789	1.54336	239
Total	Male	3.8120	1.64066	289
	Female	4.1723	1.40708	178
	Total	3.9493	1.56406	467

Tests of Between-Subjects Effects

Dependent Variable: Comp_avg

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	32.436 ^a	3	10.812	4.520	.004
Intercept	6993.549	1	6993.549	2923.632	<.001
Condit	12.137	1	12.137	5.074	.025
Gender2	15.231	1	15.231	6.367	.012
Condit * Gender2	2.360	1	2.360	.987	.321
Error	1107.531	463	2.392		
Total	8423.833	467			
Corrected Total	1139.967	466			

a. R Squared = .028 (Adjusted R Squared = .022)

Table E.12 – Two-way ANOVA on Fit of the ad in the video game industry

Between-Subjects Factors

	Value	Label	N
Condit	1.00	Non-inclusive	228
	2.00	Inclusive	239
What is your gender? - Selected Choice	1	Male	289
	2	Female	178

Descriptive Statistics

Dependent Variable: Vgfit_av

Condit	What is your gender? - Selected Choice	Mean	Std. Deviation	N
Non-inclusive	Male	4.5034	1.52122	147
	Female	4.1564	1.48332	81
	Total	4.3801	1.51377	228
Inclusive	Male	4.4894	1.50154	142
	Female	4.7010	1.31188	97
	Total	4.5753	1.42855	239
Total	Male	4.4965	1.50897	289
	Female	4.4532	1.41488	178
	Total	4.4800	1.47243	467

Tests of Between-Subjects Effects

Dependent Variable: Vgfit_av

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	13.315 ^a	3	4.438	2.061	.105
Intercept	8729.642	1	8729.642	4053.993	<.001
Condit	7.716	1	7.716	3.583	.059
Gender2	.502	1	.502	.233	.629
Condit * Gender2	8.549	1	8.549	3.970	.047
Error	996.998	463	2.153		
Total	10383.250	467			
Corrected Total	1010.313	466			

a. R Squared = .013 (Adjusted R Squared = .007)

Table E.13 – Pairwise simple contrasts for Ad Liking

E.13.1 – Contrast between gender of respondents

Estimates

Dependent Variable: Like_avg

Condit	What is your gender? - Selected Choice	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Non-inclusive	Male	4.655	.117	4.425	4.886
	Female	4.521	.158	4.210	4.831
Inclusive	Male	5.171	.119	4.937	5.406
	Female	5.347	.144	5.063	5.631

Pairwise Comparisons

Dependent Variable: Like_avg

What is your gender? – Selected Choice	(I) Condit	(J) Condit	Mean Difference (I–J)	Std. Error	Sig. ^b	95% Confidence Interval for Difference ^b	
						Lower Bound	Upper Bound
Male	Non-inclusive	Inclusive	-.516*	.167	.002	-.845	-.187
	Inclusive	Non-inclusive	.516*	.167	.002	.187	.845
Female	Non-inclusive	Inclusive	-.827*	.214	<.001	-1.247	-.406
	Inclusive	Non-inclusive	.827*	.214	<.001	.406	1.247

Based on estimated marginal means

*. The mean difference is significant at the .050 level.

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

Univariate Tests

Dependent Variable: Like_avg

What is your gender? – Selected Choice		Sum of Squares	df	Mean Square	F	Sig.
Male	Contrast	19.234	1	19.234	9.500	.002
	Error	937.425	463	2.025		
Female	Contrast	30.153	1	30.153	14.893	<.001
	Error	937.425	463	2.025		

Each F tests the simple effects of Condit within each level combination of the other effects shown. These tests are based on the linearly independent pairwise comparisons among the estimated marginal means.

E.13.2 – Contrast between conditions

Estimates

Dependent Variable: Like_avg

Condit	What is your gender? – Selected Choice	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Non-inclusive	Male	4.655	.117	4.425	4.886
	Female	4.521	.158	4.210	4.831
Inclusive	Male	5.171	.119	4.937	5.406
	Female	5.347	.144	5.063	5.631

Pairwise Comparisons

Dependent Variable: Like_avg

Condit	(I) What is your gender? – Selected Choice	(J) What is your gender? – Selected Choice	Mean Difference (I–J)	Std. Error	Sig. ^a	95% Confidence Interval for Difference ^a	
						Lower Bound	Upper Bound
Non-inclusive	Male	Female	.135	.197	.494	-.252	.522
	Female	Male	-.135	.197	.494	-.522	.252
Inclusive	Male	Female	-.176	.187	.349	-.544	.193
	Female	Male	.176	.187	.349	-.193	.544

Based on estimated marginal means

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

Univariate Tests

Dependent Variable: Like_avg

Condit		Sum of Squares	df	Mean Square	F	Sig.
Non-inclusive	Contrast	.948	1	.948	.468	.494
	Error	937.425	463	2.025		
Inclusive	Contrast	1.779	1	1.779	.879	.349
	Error	937.425	463	2.025		

Each F tests the simple effects of What is your gender? – Selected Choice within each level combination of the other effects shown. These tests are based on the linearly independent pairwise comparisons among the estimated marginal means.

Table E.14 – Pairwise simple contrasts for Purchase Intention
E.14.1 – Contrast between gender of respondents

Estimates

Dependent Variable: PI_avg4

Condit	What is your gender? – Selected Choice	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Non-inclusive	Male	3.668	.142	3.390	3.947
	Female	3.488	.191	3.113	3.863
Inclusive	Male	3.958	.144	3.675	4.241
	Female	4.021	.174	3.678	4.363

Pairwise Comparisons

Dependent Variable: PI_avg4

What is your gender? – Selected Choice	(I) Condit	(J) Condit	Mean Difference (I–J)	Std. Error	Sig. ^b	95% Confidence Interval for Difference ^b	
						Lower Bound	Upper Bound
Male	Non-inclusive	Inclusive	-.289	.202	.153	-.686	.108
	Inclusive	Non-inclusive	.289	.202	.153	-.108	.686
Female	Non-inclusive	Inclusive	-.533*	.258	.040	-1.041	-.025
	Inclusive	Non-inclusive	.533*	.258	.040	.025	1.041

Based on estimated marginal means

*. The mean difference is significant at the .050 level.

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

E.14.2 – Contrast between conditions

Estimates

Dependent Variable: PI_avg4

Condit	What is your gender? – Selected Choice	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Non-inclusive	Male	3.668	.142	3.390	3.947
	Female	3.488	.191	3.113	3.863
Inclusive	Male	3.958	.144	3.675	4.241
	Female	4.021	.174	3.678	4.363

Pairwise Comparisons

Dependent Variable: PI_avg4

Condit	(I) What is your gender? – Selected Choice	(J) What is your gender? – Selected Choice	Mean Difference (I–J)	Std. Error	Sig. ^a	95% Confidence Interval for Difference ^a	
						Lower Bound	Upper Bound
Non-inclusive	Male	Female	.181	.238	.447	-.286	.648
	Female	Male	-.181	.238	.447	-.648	.286
Inclusive	Male	Female	-.063	.226	.781	-.507	.382
	Female	Male	.063	.226	.781	-.382	.507

Based on estimated marginal means

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

Univariate Tests

Dependent Variable: PI_avg4

Condit		Sum of Squares	df	Mean Square	F	Sig.
	Error	1364.713	463	2.948		
Inclusive	Contrast	.228	1	.228	.077	.781
	Error	1364.713	463	2.948		

Each F tests the simple effects of What is your gender? – Selected Choice within each level combination of the other effects shown. These tests are based on the linearly independent pairwise comparisons among the estimated marginal means.

Table E.15 – Pairwise simple contrasts for Competence Perceived
E.15.1 – Contrast between gender of respondents

Estimates

Dependent Variable: Comp_avg

Condit	What is your gender? – Selected Choice	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Non-inclusive	Male	4.048	.128	3.797	4.298
	Female	4.274	.172	3.936	4.611
Inclusive	Male	3.568	.130	3.313	3.823
	Female	4.088	.157	3.779	4.396

Pairwise Comparisons

Dependent Variable: Comp_avg

What is your gender? – Selected Choice	(I) Condit	(J) Condit	Mean Difference (I-J)	Std. Error	Sig. ^b	95% Confidence Interval for Difference ^b	
						Lower Bound	Upper Bound
Male	Non-inclusive	Inclusive	.480*	.182	.009	.122	.837
	Inclusive	Non-inclusive	-.480*	.182	.009	-.837	-.122
Female	Non-inclusive	Inclusive	.186	.233	.425	-.271	.643
	Inclusive	Non-inclusive	-.186	.233	.425	-.643	.271

Based on estimated marginal means

*. The mean difference is significant at the .050 level.

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

Univariate Tests

Dependent Variable: Comp_avg

What is your gender? – Selected Choice		Sum of Squares	df	Mean Square	F	Sig.
		Male	Contrast	16.610	1	16.610
	Error	1107.531	463	2.392		
Female	Contrast	1.528	1	1.528	.639	.425
	Error	1107.531	463	2.392		

Each F tests the simple effects of Condit within each level combination of the other effects shown. These tests are based on the linearly independent pairwise comparisons among the estimated marginal means.

E.15.2 – Contrast between conditions

Estimates

Dependent Variable: Comp_avg

Condit	What is your gender? – Selected Choice	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Non-inclusive	Male	4.048	.128	3.797	4.298
	Female	4.274	.172	3.936	4.611
Inclusive	Male	3.568	.130	3.313	3.823
	Female	4.088	.157	3.779	4.396

Pairwise Comparisons

Dependent Variable: Comp_avg

Condit	(I) What is your gender? – Selected Choice	(J) What is your gender? – Selected Choice	Mean Difference (I–J)	Std. Error	Sig. ^b	95% Confidence Interval for Difference ^b	
						Lower Bound	Upper Bound
Non-inclusive	Male	Female	-.226	.214	.291	-.647	.195
	Female	Male	.226	.214	.291	-.195	.647
Inclusive	Male	Female	-.520*	.204	.011	-.920	-.119
	Female	Male	.520*	.204	.011	.119	.920

Based on estimated marginal means

*. The mean difference is significant at the .050 level.

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

Univariate Tests

Dependent Variable: Comp_avg

Condit		Sum of Squares	df	Mean Square	F	Sig.
Non-inclusive	Contrast	2.668	1	2.668	1.116	.291
	Error	1107.531	463	2.392		
Inclusive	Contrast	15.557	1	15.557	6.504	.011
	Error	1107.531	463	2.392		

Each F tests the simple effects of What is your gender? – Selected Choice within each level combination of the other effects shown. These tests are based on the linearly independent pairwise comparisons among the estimated marginal means.

Table E.16 – Pairwise simple contrasts for Fit of the ad in the video game industry

E.16.1 – Contrast between gender of respondents

Estimates

Dependent Variable: Vgfit_av

Condit	What is your gender? – Selected Choice	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Non-inclusive	Male	4.503	.121	4.266	4.741
	Female	4.156	.163	3.836	4.477
Inclusive	Male	4.489	.123	4.247	4.731
	Female	4.701	.149	4.408	4.994

Pairwise Comparisons

Dependent Variable: Vgfit_av

What is your gender? – Selected Choice	(I) Condit	(J) Condit	Mean Difference (I–J)	Std. Error	Sig. ^b	95% Confidence Interval for Difference ^b	
						Lower Bound	Upper Bound
Male	Non-inclusive	Inclusive	.014	.173	.936	-.325	.353
	Inclusive	Non-inclusive	-.014	.173	.936	-.353	.325
Female	Non-inclusive	Inclusive	-.545*	.221	.014	-.979	-.111
	Inclusive	Non-inclusive	.545*	.221	.014	.111	.979

Based on estimated marginal means

*. The mean difference is significant at the .050 level.

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

Univariate Tests

Dependent Variable: Vgfit_av

What is your gender? – Selected Choice		Sum of Squares	df	Mean Square	F	Sig.
Male	Contrast	.014	1	.014	.007	.936
	Error	996.998	463	2.153		
Female	Contrast	13.094	1	13.094	6.081	.014
	Error	996.998	463	2.153		

Each F tests the simple effects of Condit within each level combination of the other effects shown. These tests are based on the linearly independent pairwise comparisons among the estimated marginal means.

E.16.2 – Contrast between conditions

Estimates

Dependent Variable: Vgfit_av

Condit	What is your gender? – Selected Choice	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Non-inclusive	Male	4.503	.121	4.266	4.741
	Female	4.156	.163	3.836	4.477
Inclusive	Male	4.489	.123	4.247	4.731
	Female	4.701	.149	4.408	4.994

Pairwise Comparisons

Dependent Variable: Vgfit_av

Condit	(I) What is your gender? – Selected Choice	(J) What is your gender? – Selected Choice	Mean Difference (I–J)	Std. Error	Sig. ^a	95% Confidence Interval for Difference ^a	
						Lower Bound	Upper Bound
Non-inclusive	Male	Female	.347	.203	.088	–.052	.746
	Female	Male	–.347	.203	.088	–.746	.052
Inclusive	Male	Female	–.212	.193	.274	–.591	.168
	Female	Male	.212	.193	.274	–.168	.591

Based on estimated marginal means

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

Univariate Tests

Dependent Variable: Vgfit_av

Condit		Sum of Squares	df	Mean Square	F	Sig.
Non-inclusive	Contrast	6.289	1	6.289	2.921	.088
	Error	996.998	463	2.153		
Inclusive	Contrast	2.580	1	2.580	1.198	.274
	Error	996.998	463	2.153		

Each F tests the simple effects of What is your gender? – Selected Choice within each level combination of the other effects shown. These tests are based on the linearly independent pairwise comparisons among the estimated marginal means.

Table 17 – Moderated-mediation analysis

Table 17.1 Mediation effect of Perception of competence on Purchase Intention for female sample

```

Model : 4
  Y : PI_avg4
  X : Condit
  M : Comp_avg

Sample
Size: 178

*****
OUTCOME VARIABLE:
  Comp_avg

Model Summary
      R      R-sq      MSE      F      df1      df2      p
      .0660      .0044      1.9824      .7706      1.0000      176.0000      .3812

Model
      coeff      se      t      p      LLCI      ULCI
constant      4.4597      .3440      12.9642      .0000      3.7808      5.1386
Condit      -.1860      .2119      -.8778      .3812      -.6043      .2322

*****
OUTCOME VARIABLE:
  PI_avg4

Model Summary
      R      R-sq      MSE      F      df1      df2      p
      .5397      .2913      2.0657      35.9698      2.0000      175.0000      .0000

Model
      coeff      se      t      p      LLCI      ULCI
constant      .1697      .4910      .3456      .7301      -.7993      1.1387
Condit      .6491      .2168      2.9941      .0032      .2213      1.0770
Comp_avg      .6245      .0769      8.1160      .0000      .4726      .7763

***** TOTAL EFFECT MODEL *****
OUTCOME VARIABLE:
  PI_avg4

Model Summary
      R      R-sq      MSE      F      df1      df2      p
      .1568      .0246      2.8271      4.4350      1.0000      176.0000      .0366

Model
      coeff      se      t      p      LLCI      ULCI
constant      2.9547      .4108      7.1925      .0000      2.1440      3.7654
Condit      .5330      .2531      2.1059      .0366      .0335      1.0324

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

Total effect of X on Y
      Effect      se      t      p      LLCI      ULCI
      .5330      .2531      2.1059      .0366      .0335      1.0324

Direct effect of X on Y
      Effect      se      t      p      LLCI      ULCI
      .6491      .2168      2.9941      .0032      .2213      1.0770

Indirect effect(s) of X on Y:
      Effect      BootSE      BootLLCI      BootULCI
Comp_avg      -.1162      .1349      -.3813      .1533
  
```

Table 17.2 – Mediation effect of Perception of fit between Condition and Purchase Intention

```

*****
OUTCOME VARIABLE:
  Vgfit_av

Model Summary
      R      R-sq      MSE      F      df1      df2      p
      .5996      .3595      1.3917      260.9670      1.0000      465.0000      .0000

Model
      coeff      se      t      p      LLCI      ULCI
constant      2.5339      .1323      19.1589      .0000      2.2740      2.7938
PI_avg4      .5124      .0317      16.1545      .0000      .4500      .5747

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

Direct effect of X on Y
      Effect      se      Z      p      LLCI      ULCI
      .1286      .0679      1.8954      .0580      -.0044      .2617

Indirect effect(s) of X on Y:
      Effect      BootSE      BootLLCI      BootULCI
Vgfit_av      .0004      .0405      -.0797      .0792
  
```

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A.2.2– Stimulus used only in pretest



Figure B – Visual Interactions for Study One

Figure B.1 – Plotting of Two-way ANOVA on Ad Liking (4-items)

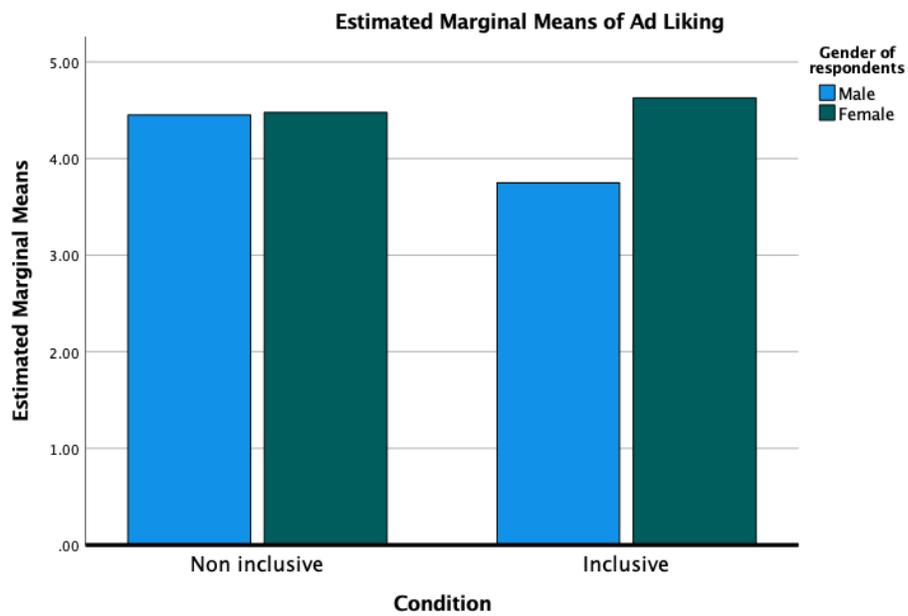


Figure B.2 – Plotting of Two-Way ANOVA on Purchase Intention (3-items)

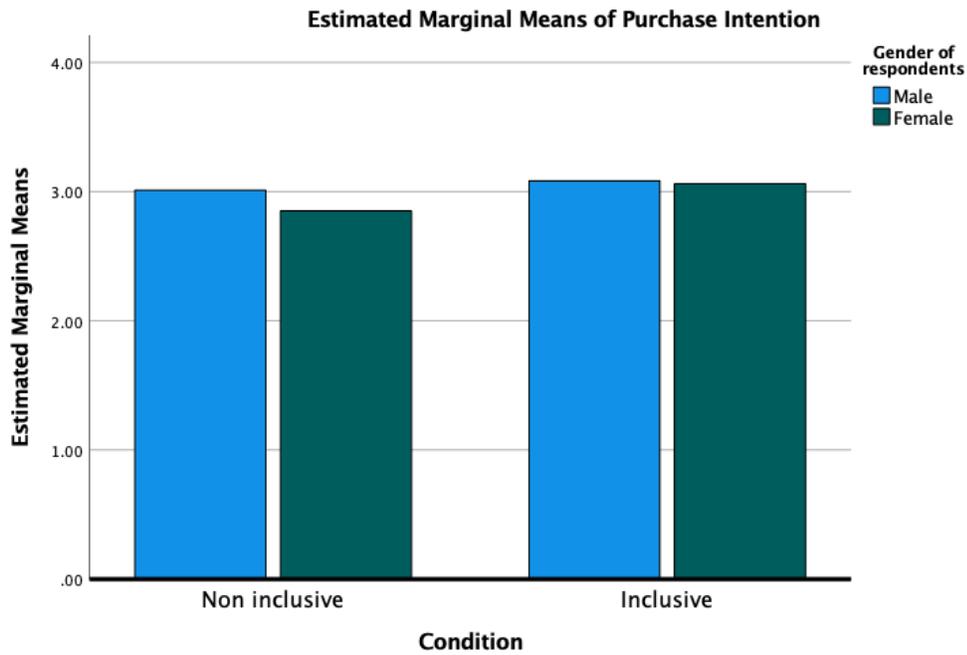
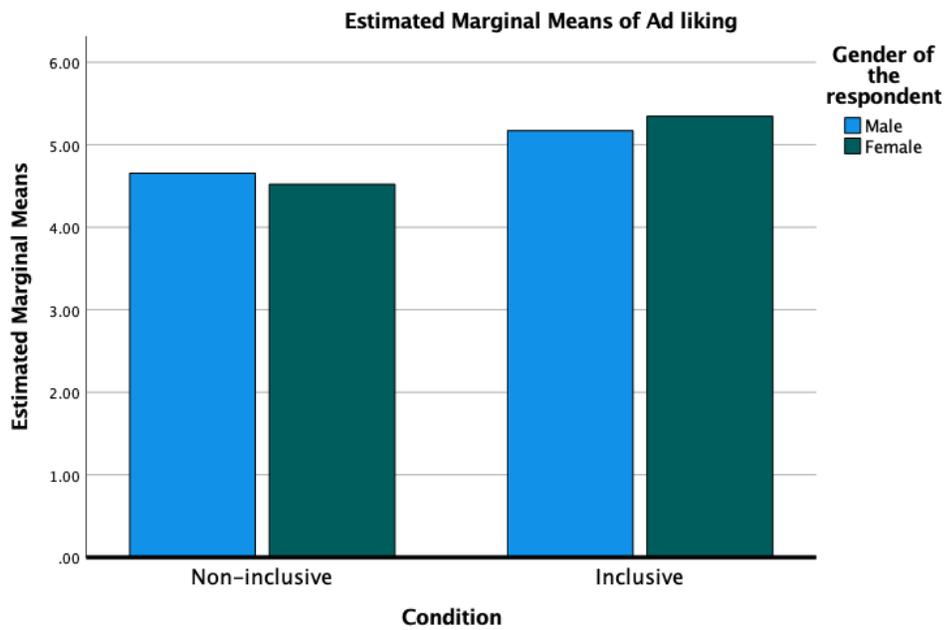


Figure C – Visual Interactions for Study Two

Figure C.1 – Plotting of Two-Way ANOVA on Ad Liking
C.1.1- Bar plotting



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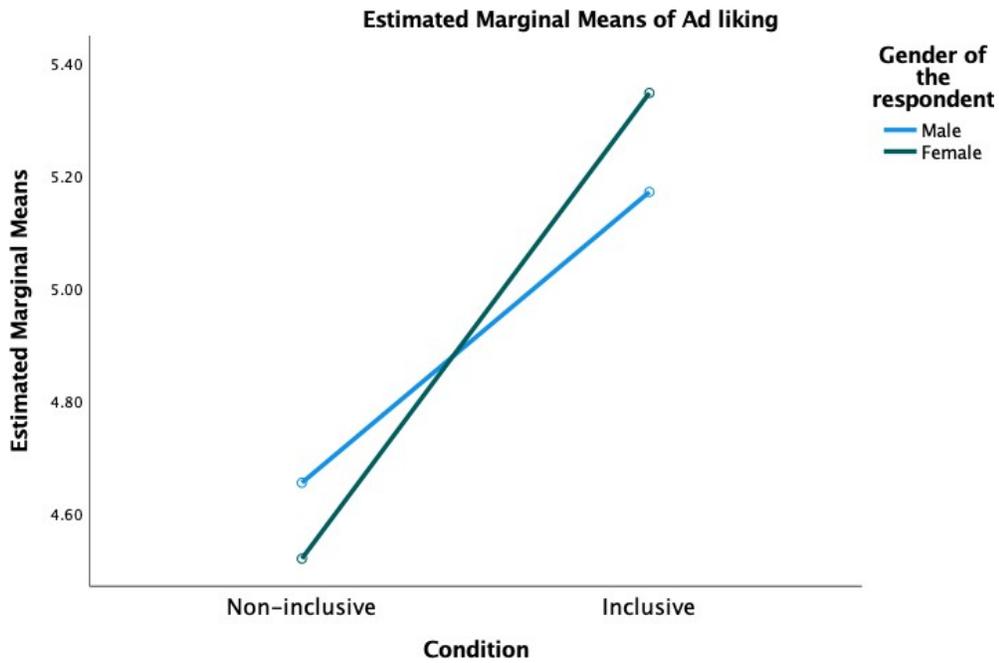
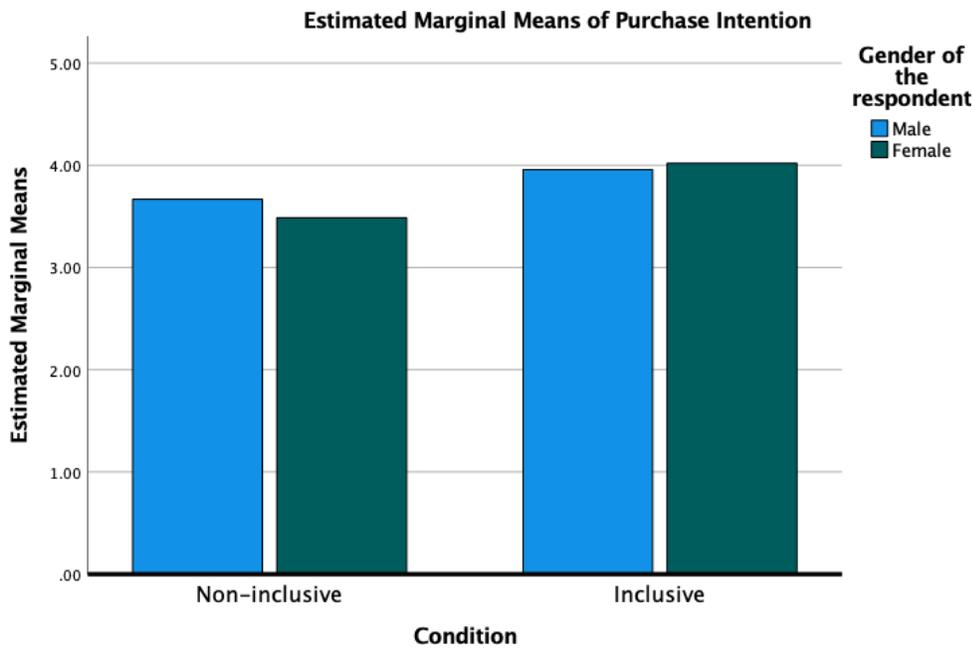


Figure C.2 – Plotting of Two-Way ANOVA on Purchase Intention

C.2.1- Bar plotting



C.2.2 Plotting of interaction

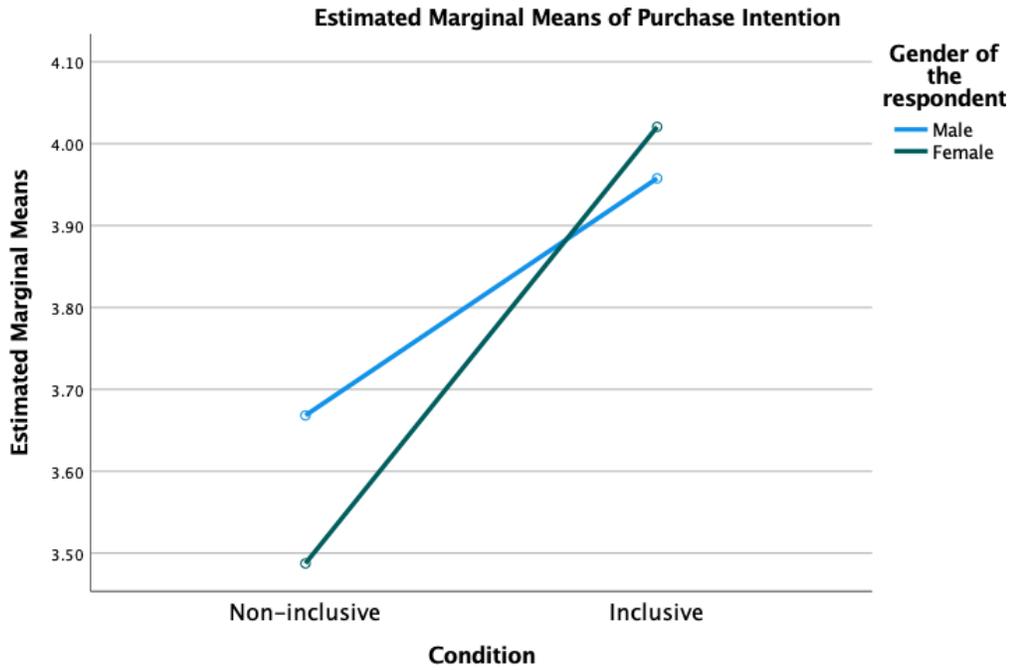
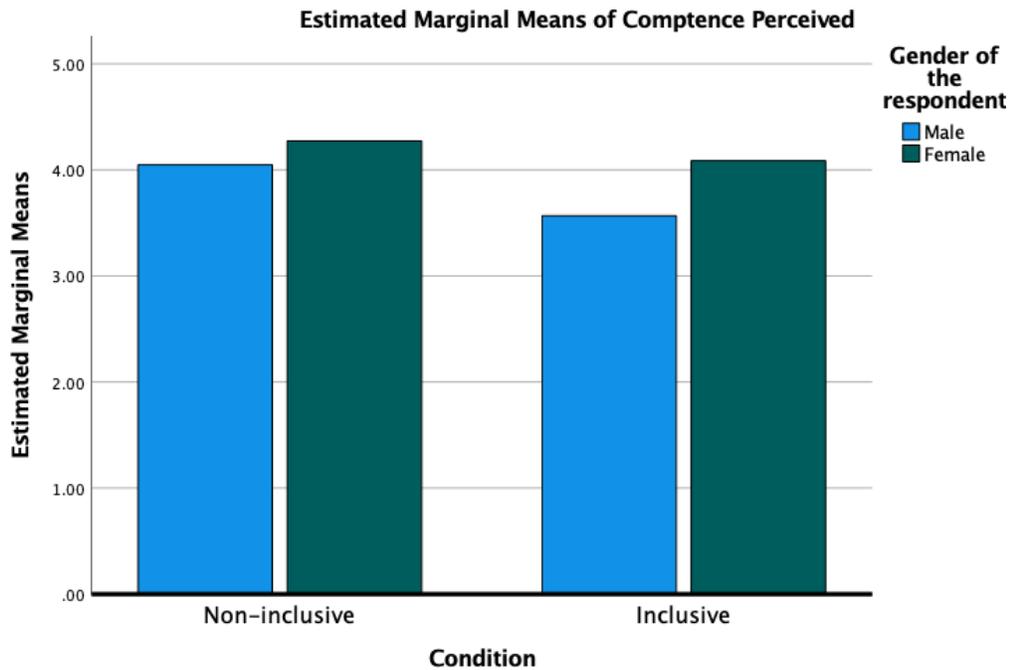


Figure C.3 – Plotting of the Two-way ANOVA on Perception of competence (of people in the ad)

C.3.1 Bar plotting



C.3.2 Plotting of interaction

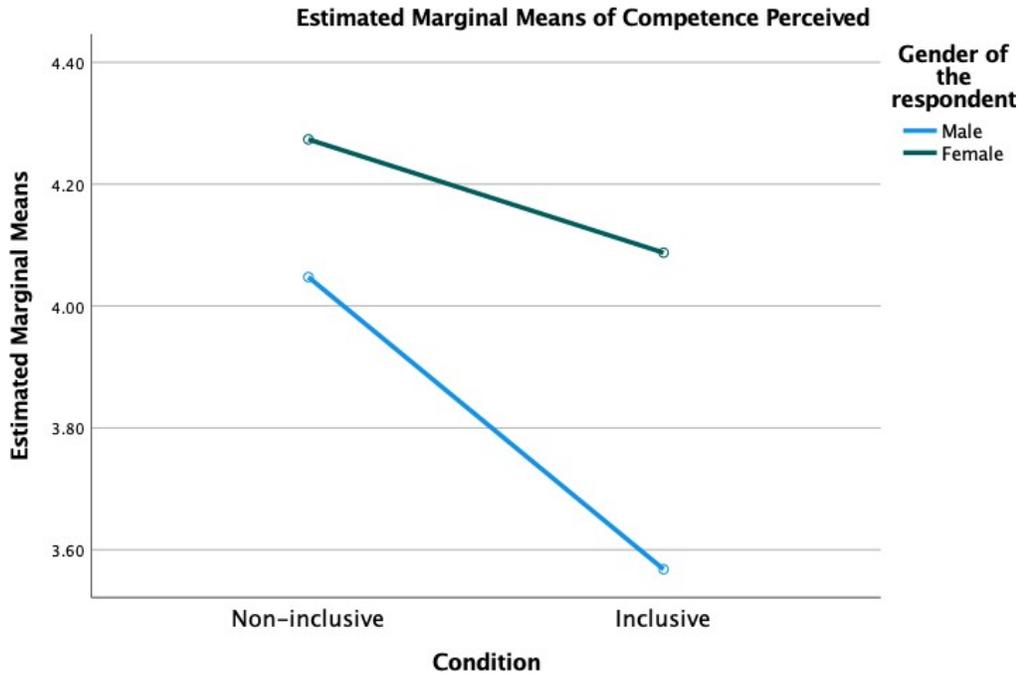
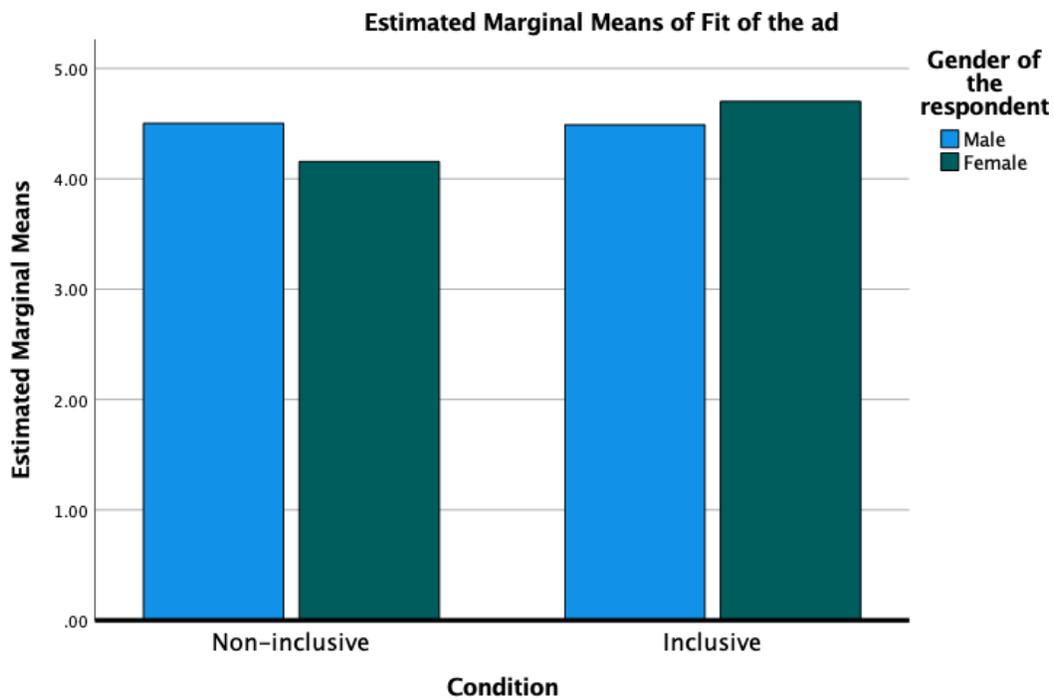


Figure C.4 Plotting of the Two-way ANOVA on Fit of the ad (with video game industry)

C.4.1 Bar plotting



C.4.2 Plotting of the interaction

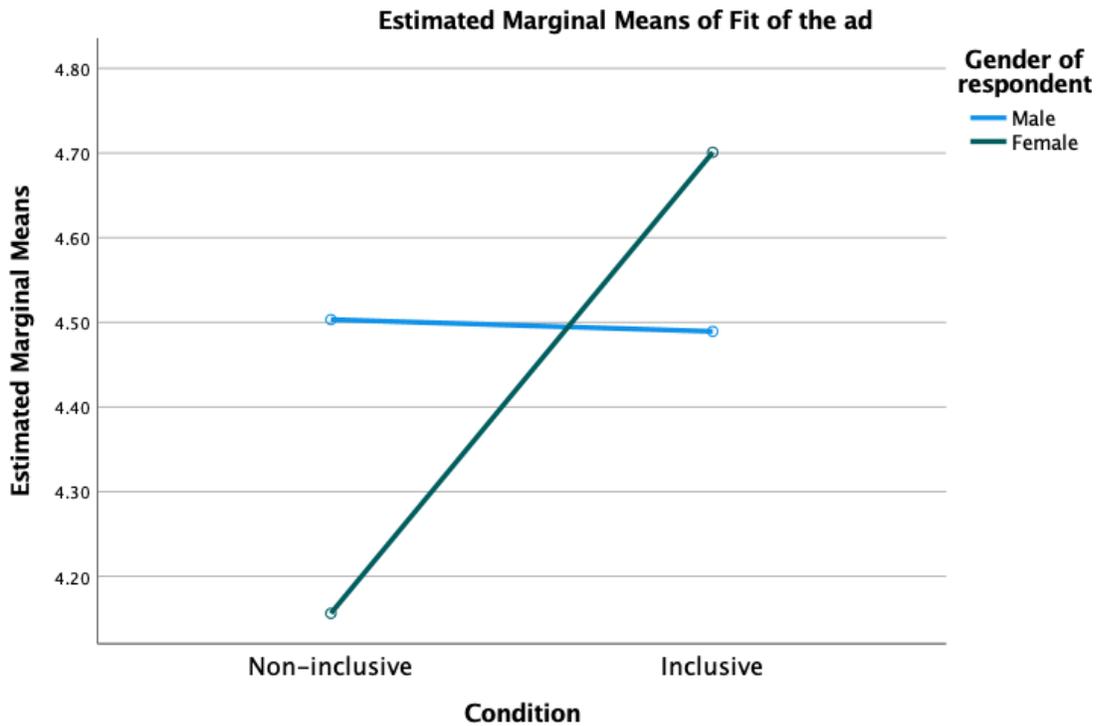


Figure D – Models of mediation and moderation

Figure D.1 - Mediation effect of Perception of competence between Condition and Purchase Liking

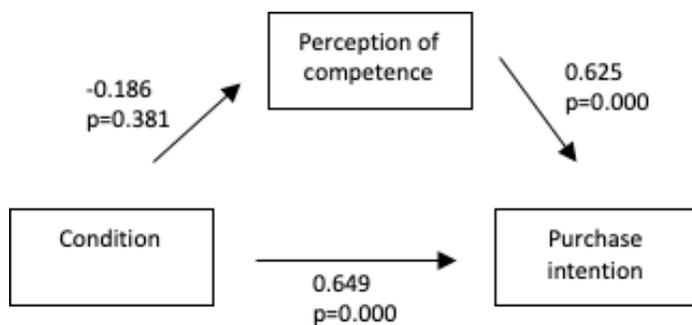


Figure D.2 - Mediation effect of Fit of the ad (with video game industry) between Condition and Purchase Intention

