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Levelling Up Equality: Navigating Gender Barriers in China's Gaming Workforce

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Abstract: The gaming industry meaningfully suffers from significant gender inequality, reflected in the underrepresentation of women in the workforce generally and their absence from leadership and core creative roles in game development. Existing literature has extensively explored the exclusion of femininity in game culture and particular obstacles confronting women in this field. However, less attention has been directed toward the micro-level situations – specifically, how corporate diversity programs may improve/strengthen gender inequality in the industry. Considering the scale of China's gaming market and the recent rise of games targeted toward women, this study compares the equity, diversity, and inclusion (EDI) policies and their practical effects across traditional and female-oriented gaming companies. Employing a feminist institutionalist perspective, this paper presents case studies of leading Chinese companies Tencent Games and Papergames, incorporating a comparative analysis with Nintendo and other relevant contextual information. Findings indicate that current EDI policies implemented by traditional gaming companies are insufficient to meaningfully address gender inequality. While female-oriented games may expand opportunities for women in key creative roles, they simultaneously risk further entrenching gender segregation.

Keywords: gender inequality; gaming industry; female-oriented games; industry inclusiveness; gender differences

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1. Introduction

While female gamers' participation in gaming has grown significantly over the last two decades, gender inequality remains as a significant issue in the gaming workforce. Industry survey and empirical research consistently indicate a scarcity of women in the gaming industry and those who are employed are often subject to undervaluation. This undervaluation is evident in their underrepresentation in leadership roles, key creative roles, and the presence of a gender pay gap. Skillsearch's 2024 survey, for instance, found that only 24% of respondents were women, with an average global gender pay gap exceeding \pounds 11,000 [1]. In the literature, the focus has been accorded to gaming culture and socio-economic factors contributing to the gender inequality in the workforce [2-4]. Limited attention has been paid to the specific companies' policies, which can influence women's capabilities to enter and grow in the gaming industry. The assessment of gender inequality policies may facilitate an analysis of the actual opportunities for women's employment in the organisation. Moreover, while studies have addressed strategies on gender issues in their places of work such as targeted human resource management, diversity training, and transparency practices [5], their executions remain ambiguous in both the gaming industry and the whole creative industries. Besides, through an analysis of the policies of the firms, it will be possible to establish the future trends of gender inequality in the gaming industry.

In China, the world's largest market for mobile and PC games, women constitute nearly half of all gamers [6]. However, in 2017, women constituted only 25.4% of the entire gaming workforce [7]. Recently, an emergence of games designed specifically for female players has occurred in China, recognising women as a key demographic. This trend gained traction following the successful 2017 launch of Mr. Love: Queen's Choice, produced by Papergames. In the wake of this success, major game developers, including Tencent and NetEase, have also released their own female-oriented games. This significant prompts questions regarding whether the increasing prevalence of female-oriented games can truly cultivate gender equality in the Chinese gaming industry. While a body of research exists analysing the sexism and misogyny encountered by female gamers while playing games and in the design of female-oriented games, comparatively few researchers have analysed gender inequality in the gaming industry itself [3,8,9]. Therefore, this study seeks to study the gender dynamics of the Chinese gaming industry through a supplyside perspective. More accurately, it will analyse game companies' policies related to gender inequality and their practical consequences. This research will evaluate the degree of alignment between these policies and their actual implementation, exploring the underlying structural factors that may contribute to any discrepancies between policy and practice in the gaming industry. In addition, this study will analyse how various types of gaming companies differ in their approaches to implementing gender equality measures and determine the factors that affect the effectiveness of these interventions.

This study adopts the perspective of feminist institutionalism, focusing on policies, actions, and representation in institutions to determine how they promote gender equality [10]. The study reviews the obstacles to gender inequality in the gaming workforce and their underlying causes. Then, the research conducts cases studies of Tencent Games, Papergames, and Nintendo, comparing their respective efforts in furthering gender equality in their organisations. Moreover, relevant industry news is integrated to offer a macro-level perspective on the realities faced by women working in the gaming industry. Finally, the study outlines the answers to the research questions and advance suggestions for future research and strategies to improve structural inequality from its earliest stages.

2. Gender Dynamics in the Global Gaming Industries

2.1. Toxic Gaming Culture in the Gaming Workforce

The gaming community has faced criticism for its toxic characteristics, often demonstrated through hostile language and actions directed at women and minority groups. These behaviours consist of sexism, racism, xenophobia, and other toxic values, frequently increasing into interpersonal conflicts and aggression [11]. Boudreau supports this assertion and expands upon it, arguing that this toxic culture is present in the entire gaming industry, from leadership positions to development team [2]. Industry surveys and studies have indicated two key facets of this toxicity in the industry's corporate settings: toxic work environments and workforce homogeneity.

Toxic work environments are reflected by negative behaviours and attitudes that negatively affect employee morale, productivity, and the overall organisational well-being [12]. In the gaming industry, this often presents as gender discrimination, sexual harassment, and the bullying of female employees[13]. The 2017 Hollywood #MeToo movement brought to light the toxic work culture prevalent in the gaming industry, emboldening female employees to report such misconduct. One key example is the 2021 lawsuit against Activision Blizzard, in which male executives faced accusations of inappropriate conduct, including groping and offensive jokes. This case highlights the normalisation of

discriminatory behaviours in a male-dominated industry, resulting in a significant number of women leaving their positions or the industry altogether.

Workforce homogeneity refers to the "work segregation" by gender, with men predominating in higher-status creative and technical roles, while women are clustered in production coordination and similar positions [14]. Research indicates that women are underrepresented in senior management, yet overrepresented in support roles such as marketing and administration; whereas, men hold most senior positions and key creative roles in game development, including technical framework development, narrative and gameplay design, and visual element production [15]. International industry surveys demonstrate similar findings. In the Canadian gaming industry, for instance, only 19% of workers are women, the majority of whom occupy lower-status, lower-paying positions, such as human resources [16]. Concerning compensation, women earn 13% less than their male colleagues in equivalent roles [1]. Similarly, in the US gaming industry, while the gender ratio of employees approaches parity Similarly, in the US gaming industry, while the gender ratio of employees approaches parity (52.5:47.5), men occupy 87% of decisionmaking roles, and a mere 23% of game developers are women [17,18].

2.2. Women are Excluded from the Gaming Industry in Multiple Ways

These phenomena indicate the multifaceted exclusions of women in the gaming industry. Firstly, the perpetuated stereotype that games are "boys' things" not only motivates gaming companies to prioritise games created by or for men, but also affects the marketing of gaming and programming magazines, which are largely aimed at boys [16]. Many women have minimal exposure to games during their formative years, which contributes to their underrepresentation in the gaming industry.

The dominance of geek masculinity and techno-masculinity represents another contributing factor. These subcultures valorise traits associated with masculinity while devaluing others. Certain men view themselves as the "genuine" gamers, and regard diversity advocates and women as interlopers or adversaries [19]. A telling example is Gamergate, a widespread online harassment campaign that occurred around 2015 directed at women involved in gaming (gamers, game developers, and game journalists) by male gamers.

The gender bias inherent in the organisational culture also creates barriers for women seeking to enter or remain in the gaming industry. Creative industries have faced criticism for the tendency of primarily heterosexual men to recruit and network with individuals who share their identity [20]. This culture of sexism is further reflected in the organisational structure, restricting women's access to networking opportunities and mentorship, thereby impeding their advancement in the industry. The scarcity of female mentors and role models can also contribute to a skill deficit, creating a self-perpetuating cycle of underrepresentation. In a study of the UK gaming industry, Harvey described a "funnel effect," in which women depart the sector at various career stages due to harassment and discrimination. This pipeline problem is exacerbated by inadequate support systems and limited pathways for female career progression [21].

Besides, women frequently shoulder the responsibilities of primary caregiving. Gaming industry work is often highly demanding and unstable, a reality that conflicts with many women's efforts to balance family and professional commitments [16]. This added responsibility, on the one hand, deters women from pursuing careers in gaming. On the other hand, it discourages companies from employing women, based on the negative effects on long-term retention and a consistent workforce [22].

In summary, the prevailing culture of gaming, with its associated gender norms, coupled with sexist organisational structures, has produced an environment in which women are underrepresented and marginalised in the contemporary gaming industry. A reported 10% rise in the proportion of female employees since 2017, with many respondents indicating they feel supported [16], suggests that some companies have started to implement

structural reforms. Nevertheless, data from 2024 and recent studies continue to demonstrate lasting deficits in organisational culture and promotion processes, and the potential to improve gaming culture in gaming companies.

3. Situations in China

In terms of overall employment in China, higher-paying positions, including senior management, technology development, and product development roles, remain largely occupied by men. The 2021 Workplace Gender Gap Report indicates that women constitute only 19.5% of the workforce in internet/digital technology positions, and that men enjoy a 12% salary premium. Focusing specifically on the gaming industry, 2024 data indicates that 72.6% of employees are male, clustered primarily in management and creative positions [23].

Obstacles confronting women in China's gaming industry reflect global patterns. These include pervasive stereotypes regarding women's lack of gaming proficiency and a workplace environment that often accepts inappropriate disproportionately from misogyny. Women who play games frequently encounter harassment, verbal abuse, and vulgar humour during gameplay, and are often perceived by male gamers as secondary characters [3]. Such a hostile climate can deter women from pursuing careers in the industry. Moreover, societal expectations in China, which often emphasize family commitments and job stability for women, may influence their career choices form considering the often unpredictable gaming sector [3].

Prior research on gender inequality in the Chinese game development industry has primarily focused on players and player communities, with limited analysis into how toxic gaming culture influences female workers' career survival and advancement. Similar to industry-wide surveys, most current reports tend to concentrate on the generalise data, lacking detailed analysis into specific questions. For instance, gender-related data often only presents the overall gender ratio, without disaggregating this information by job positions or analysing gender pay gap, thus potentially overlooking crucial issues. Companies' decisions regarding recruitment and promotion directly affect diversity and opportunity in those companies and the broader industry [24]. Therefore, to effectively improve the working environment for women in Chinese gaming development, analysing companies' policies and collecting firsthand perspectives from female employees regarding overall experiences is essential. In addition, considering that female-oriented games have demonstrated market competitiveness through high player retention rates, exploring whether this genre's popularity could stimulate increased demand for female workers, potentially leading to a transformative shift in the industry's gender dynamics, is necessary.

4. Methods and Approach

To appraise the strategies employed by various gaming companies to address gender inequality in their organisations, two Chinese gaming companies have been selected as the primary case studies, supplemented by one Japanese gaming company. The key objective is to explore how company characteristics influence these strategies, identify potential underlying causes of gender inequality, and uncover broader opportunities and challenges that gaming companies encounter when addressing this issue in the industry.

To ensure representativeness, our study concentrated on prominent companies that have directly or indirectly addressed gender inequality. The actions of industry leaders often have significant market effects and can sway entire sectors [15]. We selected three gaming companies for our analysis: Tencent Games, Papergames and Nintendo. Tencent Games exemplifies established Chinese gaming companies considering its leading industry position, long history, and significant market share. Importantly, it differentiates itself from other leading companies through its publicly available Diversity, Equitable, Inclusion (DEI) statement, a feature lacking among its competitors. We included Papergames

as our second selection due to its specialisation in developing female-oriented games, a characteristic that sets it apart from other gaming companies. Nintendo, a Japanese company, serves as a supplemental case. As a globally recognised, established gaming company with strong roots in East Asian culture, with cultural influences that share some similarities with China's, analysing Nintendo's practices may derive valuable insights for the Chinese gaming industry.

Our case study data originated from a variety of sources, including company annual reports and internal policies, publicly available company information, and relevant media coverage. In addition to company-specific information, we also reviewed news articles and interviews related to the Chinese gaming industry over the past four years. This broader data offers insights into how gender inequality is understood and handled in the industry, contextualising the two Chinese gaming companies in a broader context.

After compiling the information by company, we employed pattern matching methods to align the specific circumstances and programs of each company with the phenomena and underlying factors discussed previously. Then, we carried out cross-case cluster analyses of company programs to compare their commonalities and differences. We also utilised thematic analysis was used to uncover recurring themes related to gender inequality across our industry data. Comparing our case study findings with the themes generated from the contextual data, enabled iterative improvement of the themes and their corresponding interpretations.

5. Case Briefing

Established in 2003, Tencent Games, a global game developer and operator in Tencent's Interactive Entertainment Group, one of China's leading internet companies, produces games across a wide range of genres. However, similar to many established gaming companies, Tencent Games faces a gender imbalance, with women representing only 20% of its employees [25]. In 2017, Tencent drew criticism for sexually suggestive party games played during its annual party and for a prevailing culture of sexism in its gaming department [26]. Concerns raised regarding these issues prompted Tencent to commit to reevaluating its values and improving its work environment [26]. In 2023, the company formalised this commitment by publishing a DEI statement, to which all groups and departments are expected to adhere.

Papergames, established in 2013 and has achieved significant growth over the past decade. Beginning with a staff of merely 100, of the company now employs over 1,000 individuals with a significant influence in the industry. Specialising in the development of female-oriented games, Papergames has carved a niche in the Chinese game market. Despite the absence of a formal EDI statement, Papergames has successfully maintained a relatively balanced gender ratio in its workforce throughout its period. As of 2023, women comprised 65.43% of its employees, with many holding senior or key creative roles [27]. Specifically, to date, there are no reported incidents of sexual discrimination involving Papergames.

Nintendo, established in 1947, is a globally renowned gaming company recognised for creating a multitude of popular games. In its 2021 Corporate Social Responsibility (CSR) report, Nintendo highlighted its dedication to cultivating a diverse and inclusive workplace. The company detailed specific initiatives to be implemented at its Japanese headquarters and throughout its global branches. While Nintendo has received criticism for the underrepresentation of women in senior leadership positions, it is significant that *Animal Crossing*, one of its most successful games, had a production team with 50% female representation [28].

6. Discussions

6.1. The Gap Between Policies and Implementations

Organisations with robust EDI policies and active implementation are often viewed as better positioned for success compared to their counterparts, exhibiting advantages in profitability, innovation, talent acquisition, and brand recognition [29]. Tencent Games has presented dedication to social responsibility and global game industry alignment, distinguishing itself as one of the few Chinese companies with formalised EDI statements and a concrete implementation strategy. As a leader in the industry, Tencent Games has the potential to influence other companies, gradually prompting industry-wide efforts to address gender inequality.

Table 1 details the primary policies enacted by these three companies to address two key industry - wide obstacles. Both Tencent and Nintendo, established players in the gaming sector, have adopted similar approaches, such as issuing company-specific EDI statements and pledging support for their female workforce through the internal promotion of EDI principles. They also organise targeted programmes designed to cultivate professional growth among female employees, coupled with enhanced benefits specifically for women [30], [31]. However, Tencent Games lack clearly defined objectives and data disclosure compared to Nintendo. Specifically, Nintendo has established a quantifiable objective: to raise the employment and/or promotion rate of female full-time employees to a minimum of 30% in five years, commencing with the 2022 fiscal year [31]; whereas, Tencent's commitment to "implement a steady progress in diversity at the company and board levels in the next years" lacks accurate parameters and a defined timeframe[30]. In addition, Nintendo has publicly reported that the average female salary was 72% of that of their male counterparts', and that women occupied only 4.2% of leadership roles with significant creative decision-making authority at the company's Japanese headquarters as of 2023 [31]. While acknowledging areas for continued growth at Nintendo, these figures offer a benchmark against which to assess the company's current progress.

Challenges	Tencent Games	Papergame s	Nintendo	Patterns Identified
Toxic work environment	-Vague EDI statements and implementation plan after scandal - Increased support and guarantee exclusively for female workers	n	- Clear CSR report - Explicit statement allowing reporting of sexual harassment incidents	Emphasis on formalities rather than substance in established gaming companies
Workforce homogeneit y	 Forums and seminars aimed at encouraging women's development Claim of no gender bias during recruitment procedures 	female	 Nintendo Women and Allies, which provide empowering opportunities women's career advancement Clear defined goal for recruiting and promoting women 	- Recruitment preferences driven be profit motives - Gap between implementation and initiatives

Table 1. Summary of Companies' Initiatives and Patterns Identified.

In comparison, while Tencent reports a twenty percent increase in company-wide female patent holders since 2020 [32], it remains unclear whether the proportion of women in game development roles has similarly increased, raising concerns about the effectiveness of its diversity efforts in its gaming division. In addition, Tencent Games offers only general workforce demographics, indicating that 78% of its employees are men and 22% are women [25]. This lack of transparency regarding gender pay gaps and specific job roles not only hinders external evaluation of their actions, but also undermines the credibility of its EDI commitments. The absence of clear objectives, the limited transparency of available data, and the seemingly inadequate effectiveness of implemented measures suggest a superficial approach to existing policies and initiatives. This can be attributed to the market-driven nature of the gaming industry (discussed in section 6.2). Besides, women's representation in the Chinese gaming industry appears concentrated primarily in specific niches, such as female-oriented game project teams [33]. This concentration, however, points to underlying structural issues within the industry (to be discussed further in section 6.3).

6.2. Profit-driven Production Team

The profit-driven nature of gaming companies presents a significant obstacle to gender equality. To maximise profits, these company must ensure cost-effective input throughout the production process, while also carrying out actions to aggressively stimulate consumer (gamer) purchasing.

The drive for cost-effective labour encourages companies to prioritise applicants who can deliver greater economic returns with minimal training investment in a short timeframe. Specifically, gaming companies evaluate candidates based on their enthusiasm for games, resilience in the face of demanding workloads with relevant experience and skill sets [16]. These concerns set thresholds for many female candidates because they can hardly satisfy all these requirements. These criteria present barriers to entry for many female applicants, who often struggle to fulfil all requirements. Firstly, the preferences for candidates who demonstrate both a passion for games and well-developed technical skills implicitly favours men. Men likely have greater exposure game-related subjects throughout their development than women [16], thus cultivating enthusiasm and acquiring relevant skills earlier in life. As Harvey observed, few women pursue computer science or game programming in higher education, which reduces the pool of potential female candidates for the gaming industry [21]. Secondly, 94.8% of employees in Tencent Games reported employees report regular weekday overtime [25], suggesting a demanding workflow and a potentially challenging environment for women, especially those juggling work and family responsibilities. This may account for the primarily young, single female demographic at Tencent Games [25]. The Tencent Games example reveals illustrates how, despite corporate EDI policies designed to support women, the profit-driven focus on candidate suitability contribute to female employee attrition.

In terms of production-consumption relationship, the key consumer group, with its associated spending power and consumption trends, perpetuates existing production practices. In the gaming industry, Fron et al. critique this dynamic as the "hegemony of play," wherein a male-dominated industry generates content catering to heterosexual men's tastes [34]. The economic rationale for this practice is that male players typically spend more than female players in most games. Liu and Lai's interviews found that high-spending players are primarily middle-class heterosexual men [8]:

"Male players can spend tens or even hundreds of thousands of RMB, and they are our main customers. Female players simply can't compare; they may spend at most tens of thousands."

Greater purchasing intent and capacity position men as the key target demographic for established game developers. Accordingly, narratives centred on the male perspective and catering to male preferences have become a cornerstone of these companies' profitability.

This implicit principle in game development often disadvantages female employees, particular those in character, narrative, and visual design roles. In a male-dominated gaming culture, female characters frequently occupy secondary roles with supportive abilities

and are often portrayed with exaggerated sexual characteristics, ostensibly to increase their attractiveness. These unstated job expectations perpetuate a toxic gaming environment. One game concept artist described being explicitly instructed to enhance the sexual appeal of female characters [35], an experience that caused her discomfort yet was unavoidable given her employment. Therefore, while EDI policies can curb overt sexual harassment or intimidation, they are less effective in addressing the ingrained implicit biases that permeate the game development industry. In addition, this male-centric approach to game design can intensify female players' negative gaming experiences, potentially reducing their purchase motivation. These combined effects create a self-perpetuating loop: though women represent approximately half of all traditional gamers, misogynistic content may discourage their engagement with games, strengthening the erroneous belief that women spend less on games than men. Then, many established game developers continue to focus their efforts primarily on male players. This vicious cycle continually reduces the voices of women in the broader gaming environment.

6.3. The Paradox of Female-Oriented Games

Similarly, the appearance of female-oriented games can be ascribed to the acknowledgement of women as a consumer group with significant untapped purchasing potential [3]. In other words, female-oriented games are created because of the understanding that the gaming desires of women have been largely neglected due to the scarcity of games catering to women in the existing market [36]. Therefore, women's preferences are given top priority in the creation of this specific game category.

The growth of female-oriented games has produced beneficial effects for gender equality in the gaming industry. Firstly, this category advances the portrayal of women in creative roles. Numerous development teams prioritise applicants experienced with this category, especially players of such games [37]. This preference, founded on professional skills, effectively increases women's involvement in essential aspects of game production. Secondly, a higher proportion of female employees can foster a more inclusive work environment. A current female employee at Papergames mentioned noted that the significant number of women employed by the company has resulted in greater consideration for women's rights and employee benefits, establishing a more encouraging atmosphere for their professional growth.

Nevertheless, this gendered approach also introduces possible hazards that demand scrutiny. As Ridgeway argues, gender functions as a fundamental cultural structure and sustains people's understanding and anticipations related to gender roles [38]. When women are associated with particular game designs and narrative elements in femaleoriented games, it strengthens the notion that female players and male players have fundamental differences in their game preferences, thus continuing stereotypes that women are not suited to play conventional games. This connection may also limit the professional development of female employees in creating conventional games, as their abilities may be disregarded. Accordingly, the gender separation in the industry may be intensified as female-oriented games become a somewhat separate specialised market, further neglecting gender inequality in conventional games and worsening broader challenges in achieving gender balance in the industry.

6.4. Lessons From Animal Crossing

The contrasting approaches of traditional and female-oriented gaming companies toward gender equality appear to emphasis the entrenchment of masculinity in traditional games, a characteristic resistant to change in a profit-oriented industry. *Animal Crossing*, however, presents an alternative. The game permits players to select their presentation and gender identity [39], indicative of the development team's commitment to equity, diversity and inclusion. Specifically, over half of *Animal Crossing*'s production team are women, a landmark achievement for Nintendo. Producer Aya Kyogoku, in an interview, stated that the game's success has solidified her conviction that varied viewpoints are essential to creative game design [28]

The player demographic further confirms the significance of diverse perspectives in development. *Animal Crossing* has disrupted established assumptions by drawing a significant female audience, refuting the concept that women lack interest in gaming hardware [28]. Certain criticism indicates that the users still adhere to the social conventions and gender stereotypes in the course of the gameplay [40]. However, the game itself demonstrates how a diverse project team has the potential to promote inclusiveness. The success of *Animal Crossing* indicates that the inclusion of varying views in the production team has the capacity to lead to unexpected consumers and enhance overall profits. This achievement could be replicated across the Chinese gaming industry.

7. Conclusions and Suggestions

7.1. Conclusion

This research critically discusses gender dynamics in China's gaming industry, in particular, the activities of Chinese companies Tencent Games and Papergames. Besides, it also draws comparisons with Japanese company Nintendo and other contextual data. The findings indicate that the existing programmes implemented by the traditional gaming companies are insufficient as they focus mainly on formality. This phenomenon can be attributed to entrenched gender norms and profit-driven behaviours in the video gaming sector. The pursuit of profits has led to a tailoring means to male players' requirements, thus propagating a toxic work environment and workforce homogeneity. While female-oriented games might help in representing women in the industry by Increasing the number of them in major creative positions, it poses a risk of increasing gender segregation in the industry. However, when applied to traditional Chinese gaming companies, the case of *Animal Crossing* by Nintendo exemplifies a case where diverse perspectives have been blended and transformed into gender profit for all stakeholders.

7.2. Academic Contributions and Industry Implications

This research offers several academic contributions. Firstly, it bridges a gap in existing literature and industry surveys by 1) analysing gender inequality in the Chinese gaming workforce; 2) offering a micro-perspective analysis of whether current company efforts effectively address gender inequality. Secondly, it broadens the applications of feminist institutionalism by employing it to Analyse the gaming industry. Moreover, it offers a preliminary assessment of policies adopted by cultural industries to advance EDI issues.

In practical terms, the identified deficiencies in current programs suggest several avenues for enhancement. Firstly, the underrepresentation of women in key roles could be addressed by governmental policies encouraging gender diversity requiring game developers to achieve specific targets for female leadership and creative staff. Though such a measure may appear drastic, a limited pilot program could allow policymakers and companies to determine the effect of increased female representation on game quality. Simultaneously, incorporating female perspectives could facilitate adjustments to game design appropriate adjustments to game design conventions that frequently sexualise female characters. Secondly, from a financial standpoint, businesses should engage in thorough market research to understand the preferences of both current and prospective player bases. Eliminating obstacles to in-game purchases by women could unlock significant revenue growth for companies. Such efforts would also signal a commitment to female players and their purchasing power, thereby disrupting negative feedback loops. Thirdly, leading companies could experiment with replicating Animal Crossing model - in which women comprised over half of the development tram – in traditional game production. This relatively low-risk experimental approach could evaluate the potential benefits of more diverse team. Finally, industry analysts should disseminate detailed workforce demographics reports that explicitly address gender representation. The availability of such reports would offer a comprehensive overview of the current status of gender imbalance in the industry and cultivate broader recognition of related challenges, thus promoting industry-wide advancement.

7.3. Research Limitations and Future Research Directions

This study has several limitations that warrant acknowledgement. Relying on publicly available data may have gaps in information concerning policy implementation specifics and their accurate effects. Besides, considering the absence of data on other genders, this research employed a conventional binary gender categorisation. It is necessary, however, to recognise the importance of inclusivity across the gender spectrum, necessitating further study of female frontline workers. Moreover, the recommendations presented herein represent only preliminary steps towards addressing systemic inequalities in the sector, requiring the development of more rigorous methodologies. Future research might fruitfully appraise the process of change in gaming companies to offer a fuller evaluation of their policies.

References

- 1. V. Lehdonvirta et al., "Pink and blue pixel \$: Gender and economic disparity in two massive online games," *Inf. Soc.*, vol. 30, no. 4, pp. 243–255, 2014, doi: 10.1080/01972243.2014.915277.
- 2. K. Boudreau, "Beyond deviance: Toxic gaming culture and the potential for positive change," *Crit. Stud. Media Commun.*, vol. 39, no. 3, pp. 181–190, 2022, doi: 10.1080/15295036.2022.2080848.
- 3. T. Liu and Z. Lai, "From non-player characters to othered participants: Chinese women's gaming experience in the 'free' digital market," *Inf. Commun. Soc.*, vol. 25, no. 3, pp. 376–394, 2022, doi: 10.1080/1369118X.2020.1791217.
- 4. A. Harvey and S. Fisher, "Everyone can make games!: The post-feminist context of women in digital game production," *Fem. Media Stud.*, vol. 15, no. 4, pp. 576–592, 2015, doi: 10.1080/14680777.2014.958867.
- 5. Q. Roberson, E. King, and M. Hebl, "Designing more effective practices for reducing workplace inequality," *Behav. Sci. Policy*, vol. 6, no. 1, pp. 39–49, 2020, doi: 10.1177/237946152000600104.
- 6. L. Zhouxiang, "VR sports games: An overview," Asian J. Sport Hist. Cult., vol. 3, no. 3, pp. 245–265, 2024, doi: 10.1080/27690148.2024.2351216.
- 7. M. D. Dickey, "Girl gamers: The controversy of girl games and the relevance of female-oriented game design for instructional design," *Br. J. Educ. Technol.*, vol. 37, no. 5, pp. 785–793, 2006, doi: 10.1111/j.1467-8535.2006.00561.x.
- 8. E. Y. Liu, "When feminist awareness clashes with romance in games: A feminist reception study of otome gamers in China," *Chin. J. Commun.*, pp. 1–17, 2024, doi: 10.1080/17544750.2024.2430669.
- 9. Y. Ma, Z. Zhang, and J. Gao, "The Politics of Gender in the Video Game Culture in China," in *Proc. Int. Conf. Humanit. Educ. Soc. Sci. (ICHESS)*, Atlantis Press, 2022, doi: 10.2991/978-2-494069-89-3_230.
- 10. J. Thomson, "Resisting gendered change: Feminist institutionalism and critical actors," *Int. Polit. Sci. Rev.*, vol. 39, no. 2, pp. 178–191, 2018, doi: 10.1177/0192512116677844.
- 11. M. Consalvo, "Crunched by passion: Women game developers and workplace challenges," 2008, doi: 10.7551/mitpress/7477.003.0017.
- 12. R. Sulaeman et al., "Toxic workplace culture: causes and consequences," J. Acad. Sci., vol. 1, no. 4, pp. 384–394, 2024, doi: 10.59613/p9hfcf75.
- 13. S. de Castell and K. Skardzius, "Speaking in public: What women say about working in the video game industry," *Televis. New Media*, vol. 20, no. 8, pp. 836–847, 2019, doi: 10.1177/1527476419851078.
- 14. D. Hesmondhalgh and S. Baker, "Sex, gender and work segregation in the cultural industries," *Sociol. Rev.*, vol. 63, no. 1_suppl, pp. 23–36, 2015, doi: 10.1111/1467-954X.12238.
- 15. E. N. Bailey, K. Miyata, and T. Yoshida, "Gender composition of teams and studios in video game development," *Games Cult.*, vol. 16, no. 1, pp. 42–64, 2021, doi: 10.1177/1555412019868381.
- 16. T. Q. Tan, "Principles of inclusion, diversity, access, and equity," J. Infect. Dis., vol. 220, no. Suppl. 2, pp. S30–S32, 2019, doi: 10.1093/infdis/jiz198.
- 17. P. Magennis and I. Hutchison, "Survey of United Kingdom oral and maxillofacial surgery (OMFS) specialists and trainees about the reasons that they retain or drop their registration with the General Dental Council (GDC) including a summary of changes in the numbers registered with the GDC 2014-2023," *Br. J. Oral Maxillofac. Surg.*, vol. 62, no. 3, pp. 259–264, 2024, doi: 10.1016/j.bjoms.2023.11.010.
- 18. A. Settle, M. M. McGill, and A. Decker, "Diversity in the game industry: is outreach the solution?," in *Proc. 14th Annu. ACM SIGITE Conf. Inf. Technol. Educ.*, 2013, doi: 10.1145/2512276.2512283.

- 19. B. Paaßen, T. Morgenroth, and M. Stratemeyer, "What is a true gamer? The male gamer stereotype and the marginalization of women in video game culture," *Sex Roles*, vol. 76, pp. 421–435, 2017, doi:10.1007/s11199-016-0678-y.
- 20. H. Ibarra, "Homophily and differential returns: Sex differences in network structure and access in an advertising firm," *Admin. Sci. Q.*, pp. 422–447, 1992, doi: 10.2307/2393451.
- 21. A. Harvey, "Making the grade: Feminine lack, inclusion, and coping strategies in digital games higher education," *New Media Soc.*, vol. 24, no. 9, pp. 1986–2002, 2022, doi: 10.1177/1461444820986831.
- 22. I. Bacik and E. Drew, "Struggling with juggling: Gender and work/life balance in the legal professions," * *Women's Stud. Int. Forum*, vol. 29, no. 2, 2006, doi: 10.1016/j.wsif.2006.03.006.
- 23. T. Liu and Z. Lai, "Eroticism and design workshops in game interfaces: Exploring a mobile Otome game for Chinese women," *Games Cult.*, 2024, Art. no. 15554120241306788, doi: 10.1177/15554120241306788.
- 24. R. Eikhof, "Analysing decisions on diversity and opportunity in the cultural and creative industries: A new framework," *Or*-*ganiz.*, vol. 24, no. 3, pp. 289–307, 2017, doi: 10.1177/1350508416687768.
- 25. K. Watts and W. Richardson, "Inclusive pedagogy strategies to introduce high schoolers to systems biology," *Biomed. Eng. Educ.*, vol. 4, no. 1, pp. 87–96, 2024, doi: 10.1007/s43683-023-00127-1.
- 26. M. Mehrnezhad, T. Van Der Merwe, and M. Catt, "Mind the FemTech gap: Regulation failings and exploitative systems," *Front. Internet Things*, vol. 3, 2024, Art. no. 1296599, doi: 10.3389/friot.2024.1296599.
- 27. A. Karpińska et al., "Production networks in the cultural and creative sector: case studies from the publishing industry," *J. Cult. Creat. Ind.*, 2023, doi: 10.5281/zenodo.6886027.
- 28. A. M. Subramanian, K.-H. Chai, and S. Mu, "Capability reconfiguration of incumbent firms: Nintendo in the video game industry," *Technovation*, vol. 31, no. 5-6, pp. 228–239, 2011, doi: 10.1016/j.technovation.2011.01.003.
- 29. A. S. Gutterman, "Embedding diversity, equity, and inclusion," Equity Inclusion, Dec. 20, 2023, doi: 10.2139/ssrn.4663759.
- 30. J. Ling, "Analysis of Tencent ESG disclosure highlights and issues," Int. J. Financ. Invest., vol. 1, no. 1, pp. 72–74, 2024, doi: 10.54097/6drds279.
- 31. G. Modarelli and C. Rainero, "Perceptions, criticalities, and potentials of game-based trainings for inclusion: A literary review and evidence from the field," in *Game-Based Educ. Approaches Inclus. Bus. Manag.*, 2025, pp. 1–48, doi: 10.4018/979-8-3693-1172-1.ch001.
- 32. S. Nan and B. Balakrishnan, "Ethical impact: A perspective for understanding Chinese animation creators," *KUPAS SENI: J. Seni Pendidikan Seni.*, vol. 13, no. 1, pp. 30–41, 2025, doi: 10.37134/kupasseni.vol13.1.4.2025.
- 33. M. Chi et al., "What drives mobile game stickiness and in-game purchase intention? Based on the uses and gratifications theory," *Int. J. Mobile Commun.*, vol. 24, no. 4, pp. 424–452, 2024., doi: 10.1504/IJMC.2024.141821.
- 34. R. Walker, "The struggle to establish basketball in Scotland," Sport Hist., 2025, pp. 1–28. doi: 10.1080/17460263.2024.2446768.
- 35. L. W. Sumner, "Positive sexism," Soc. Philos. Policy, vol. 5, no. 1, pp. 204–222, 1987, doi: 10.1017/S0265052500001321.
- 36. F. Akhtar and A. Rasul, "Empowering women on screen: Exploring the influence of female protagonists on contemporary culture and gendered enjoyment in film," *Cogent Arts Humanities*, vol. 12, no. 1, Art. no. 2444762, 2025, doi: 10.1080/23311983.2024.2444762.
- 37. A. Lysova, K. Hanson, and J. Mackay, "Bidirectional and unidirectional intimate partner violence: A comprehensive review," *Partner Abuse*, 2024, doi: 10.1891/PA-2024-0039.
- 38. C. L. Ridgeway, "Framed before we know it: How gender shapes social relations," *Gender Soc.*, vol. 23, no. 2, pp. 145–160, 2009, doi: 10.1177/0891243208330313.
- 39. S. A. Shelton, C. H. Coogler, and V. Watson, "Queer worldmaking in Animal Crossing: Disruptive and joyful critical media literacies," *Int. J. Crit. Media Lit.*, vol. 3, no. 2, pp. 120–140, 2023, doi: 10.1163/25900110-03020004.
- 40. D. Nan et al., "Exploring user experience of 'Animal Crossing' via semantic network approach," in *Proc. 16th Int. Conf. Ubiquitous Inf. Manag. Commun. (IMCOM)*, 2022, Art. no. 9721764, doi: IMCOM53663.2022.9721764.

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