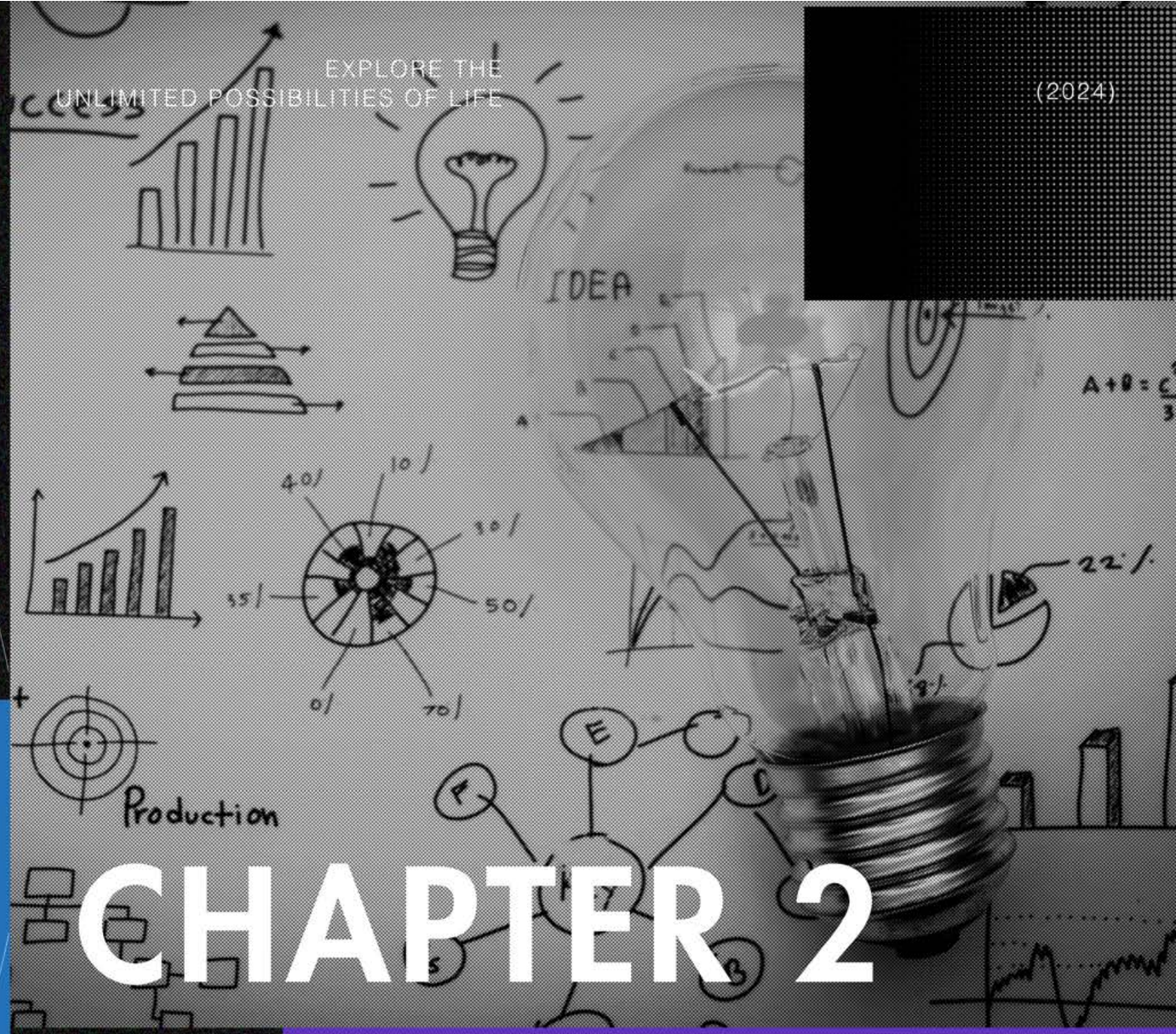
# PROMOTING DIGITAL RESPONSIBILITY

# 轉動數位責任




# CHAPTER 2

# 2.1 INNOVATION ACHIEVEMENTS

# 2.1.1 INNOVATION INVESTMENT AND RESEARCH AND DEVELOPMENT



## Innovative development outcomes

Gamania consistently aims to meet consumers' needs as its core objective. This is achieved through the resource integration and collaboration across its various business groups, facilitating comprehensive innovation in operational management. In terms of R&D strategies, Gamania has continued to work toward its applicability vision of "strengthening the Group's IP ecosystem and continuing to grow the all-round entertainment ecosystem" by actively developing our own IP, performing pan-entertainment content deployment, building a social platform that best aligns with the attitude and culture of the new generation, and continuously enhancing the development of mobile games and apps. Furthermore, Gamania strategically positions itself in the cutting-edge fields of cloud applications and information security technology.In 2024, the R&D expenditure was NT$818 million, showing an increase by 25.27% compared to the previous year.In recent years, the Group has progressively integrated AI technology to transform user experiences and enhance the efficiency of digital services. In the future, Gamania will continue to explore this direction by expanding AI application scenarios toward the goal of building an enterprise with a holistic entertainment network, thereby laying a solid foundation for sustainable growth.

### Innovation R&D investment

**R&D expenditure**
**NT$ 818 million**

**R&D expenses as % of operating revenue**
**7.39%**

**R&D expenditure annual growth**
**25.27%**

### Areas of Investment

- Developed the B2B comprehensive AI business solution, Vyin AI, which boasts unique advantages in processing unstructured data and reducing the risk of AI hallucinations.
- Offers Vyin Chat, a communication technology solution for enterprises, providing availability, reliability, and stability for real-time chat, voice, and video services.
- Launched VieFor, a new gamified socializing product where users can promote diverse topics, interests, and creative content.
- Incubated brands like "Cultural and Creative Leader" and "Team Music Project," realizing cross-IP collaborations.
- We developed the RPG turn-based mobile game on our own, to extend new original IP works in collaboration with a well-known domestic IP. We also developed the "CHIBI MARUKO CHAN - Cheerful Spirit!" and launched in a total of 10 countries inclusive of Taiwan, Hong Kong, Macau, Japan, Korea, and Southeast Asia. In 2024, we participated in the anime convention through Gamania Carnival.
- Launched virtual idol applications, completed the production of two programs: "Gamania Broadcast! It's Okay!" and "Miss Honey's Entertainment Report," and utilized the AI virtual human "Xiao Yuan" to participate in programs and major media events, to expand the application of virtual characters in information content and media fields.
- Launched 27 original comics and 13 original novels.
- Established a comic translation mechanism combining three LLMs, and will continue to research and develop tool-based interfaces and processes, with the goal of completing an AI comic translation tool by 2025.

# Innovative IP Development

Taiwan possesses abundant original content and creative talent in areas of comics, animation, games, and music, showcasing diverse cultural energy. However, due to insufficient resources, such as funding and commercial scale, many original works face difficulties in promotion and market penetration, unable to realize their potential value. Gamania has long focused on the development of the cultural content industry and actively responds to market expectations for local original works by launching multiple IP incubation projects and cross-industry collaborations. These include the "Team Music Project," "Cultural and Creative Leader," as well as comic/novel adaptations like "Born for the Spotlight," and the MOJOIN Comic Creation Festival. Through these strategic collaborations, Gamania provides original content with larger-scale development opportunities, allowing Taiwan's original creativity to be seen by more people in daily life and the international market.

## Two major IP incubation programs

### Team Music Project

In collaboration with the Taipei Music Center, this project aims to establish a complete resource network for musicians through various forms of support, including promotional resources, performance opportunities, and monetary awards. It also leverages AI technology to assist musicians with marketing, promotion, and fan engagement.

### Cultural and Creative Leader

Expanding into the graphic arts industry, this project establishes a graphic IP incubation initiative. Currently, hundreds of creators have joined. It provides practical resources to creators through diverse methods, including course training, brand matching, and promotional exposure. Simultaneously, it handles image licensing negotiations for various IPs.

## Three major original content projects

| Aspect | 2024 Outcomes | 2025 Targets |
|---|---|---|
| **Transmedia adaptation** | ✦ Launched derivative comics and novels from the popular TV series "Born for the Spotlight".<br>✦ Following "RESCUTE," released "Xtreme Deep Field Project: Meow," a comic adaptation of a popular Vtuber.<br>✦ Collaborated with renowned astrologer Jesse Tang to release the romance zodiac comic "Destined Houses".<br>✦ Partnered with popular bands Bestards and Mango Jump to create the second installment of the music crossover project "Check What You're Listening". | ✦ Continue to deepen our cross-domain collaboration in music and webtoons/novels.<br>✦ Planned to initiate 3 new cross-industry or co-production projects, to continually facilitate IP collaboration and formats. |
| **New Star Program** | ✦ Regularly implements New Star Program to offer creators contract signing opportunities and guidance from renowned authors.<br>✦ Held the first MOJOIN Comic Creation Festival, collaborated with publisher Kadokawa Taiwan, and received over a hundred comic submissions. | ✦ Organized the first call for novel submissions.<br>✦ Hosted the second call for submissions for the MOJOIN Comic Creation Festival. |
| **Talent cultivation** | ✦ Provides officially signed authors with stable remuneration, assistant subsidies, professional development plans, and opportunities to explore more cross-domain creative collaborations. | |

# 2.1.2 AI APPLICATION



## AI vision and strategy

Facing the global digital transformation driven by the AI wave, Gamania Group, during its strategic transformation, identified key challenges in adopting AI. Therefore, in 2024, the "AI Innovation Lab" was established to actively develop cutting-edge technologies and expand into international markets. By launching the enterprise-grade innovative AI brand, Vyin AI, Gamania is committed to providing reliable solutions and building a digitally sustainable and competitive future.

Addressing the challenges of generative AI technology in commercial applications, Gamania starts from enterprises' pain points during operations, and focuses on resolving core market concerns about AI commercialization. Through the self-development of two core technologies – building LLM models that mimic the human brain and independently developing the Distilled Retrieval-Augmented Generation (RAG) architecture – Gamania targets enterprise-level application scenarios. It has developed three main products: Vyin Brain, Vyin RecSys, and Vyin Star, to comprehensively cover multiple enterprise application scenarios to become an expert in AI business solutions.

## Vyin AI core products

Gamania Group's Vyin AI solutions currently focus on promoting three core products: Vyin Brain, Vyin RecSys, and Vyin Star. Vyin Brain is an intelligent chatbot system built on Generative AI (Gen AI) technology, mainly designed to help businesses effectively lower customer service operating costs. Vyin RecSys focuses on enhancing customers' interaction and product recommendations to boost corporate revenue performance. Meanwhile, Vyin Star involves the virtualization of licensed celebrities and leverages AI image generation and voice technology to build AI-enabled innovative MarTech solutions through virtual idols. In addition to continuing to cultivate the Taiwanese market and solidify its development foundation, Vyin AI is actively expanding into international markets.

### Vyin Brain

| | |
|---|---|
| content | Gen AI chatbot |
| benefits | Reduces customer service operating costs and enhances user experience. |

### Vyin RecSys

| | |
|---|---|
| content | AI recommendation system |
| benefits | Achieves data-driven growth and increases product revenue. |

### Vyin Star

| | |
|---|---|
| content | Authorized celebrity virtual avatar |
| benefits | Converts celebrity influence into product revenue. |

## Vyin AI's five core technological domains

| AI domain | Core AI technologies | | | Combined applications |
|---|---|---|---|---|
| **Text** | Natural Language Processing (NLP) | Recognition | Named Entity Recognition (NER) | ✦ Personalized search & recommendation<br>✦ Fraud, spam, pornography, and violence detection<br>✦ AI journalist (news content or summarized content)<br>✦ AI Podcast<br>✦ AI SOUNDTRACK<br>✦ Customer service chatbot<br>✦ Video and meeting content summarization<br>✦ Image search<br>✦ AI Avatar<br>✦ Voice imitation and human voice conversion<br>✦ Optical Character Recognition (OCR) (text recognition in images and assisting with ID card verification)<br>✦ AI MV<br>✦ AI ad campaign recommendation<br>✦ AI digital content matching<br>✦ Intelligent product tag disaggregation |
| | | | Text classification and prediction | |
| | | Generation | Text-to-text generation from text command | |
| **Image** | Computer Vision (CV) | Recognition | Image content recognition | |
| | | Generation | Text-to-image generation from text commands | |
| | | | Image-to-image generation | |
| **Video** | | Recognition | Video content recognition | |
| | | Generation | Prompt-to-image generation | |
| | | | Image-to-video generation | |
| **Voice** | Digital Signal Processing (DSP) | Recognition | Voice content recognition | |
| | | Generation | Text-to- voice generation from text commands | |
| | | | Voice-to-voice generation (voice synthesis) | |
| **Behavior** | Big Data (BD) | Recognition | Behavior tracking and recognition | |

# AI Application Scenarios

Beyond developing Vyin AI solutions, Gamania is actively exploring the potential of AI technology in cultural creation. By integrating AI into the ACGN domains, Gamania aims to not only enhance creators' efficiency but also transform user experiences, enabling more personalized and diverse creation approaches. Gamania plans to integrate AI Agent concepts into the following areas to promote innovation in the ACGN field.

### Plot Creation Agent

It assists creators in quickly developing stories and guides plot development, character interaction, and dialogue design. It enables AI to automatically optimize content, provide style adjustments, plot branching, and cultural adaptation; and supports multimedia creation, enabling the efficient creation of unique stories.

### Manga Design Agent

It automatically generates storyboards, scene designs, and character interactions; provides suggestions for panel composition based on plot requirements; and helps creators quickly complete sketches, background designs, and detailed drawings. It also assists in adjusting character poses, facial expressions, and art style, making the manga creation process smoother and more efficient.

### Game Interaction Agent

It provides intelligent game level design, character interaction, and challenge system generation; optimizes game content based on players' behavior and feedback, thus enhancing game interactivity and immersion.

Furthermore, Gamania leverages AI to expand its applications in operations:

### Game Testing Agent

It performs automated game testing, including functional testing, performance testing, and debugging; quickly identifies and reports errors, verifies compliance with design requirements; and allows for test process adjustments, thus reducing manual testing time and costs and ensuring game quality, fluidity, and stability.

### Project Management Agent

It enables real-time monitoring of project progress and produces progress reports based on task completion; issues early risk warnings to Project Managers (PMs) promptly. If project delays, resource shortages, or other potential issues are detected, AI proposes adjustment suggestions to help PMs address risks in advance. AI can also automate a large number of management tasks, thus reducing the Company's reliance on manual labor and lowering human resource costs. This allows teams to dedicate more energy to innovation and core business.

## Vyin Brain AI customer service chatbot

In the GAI customer service field, the industry commonly faces the challenge of "AI Hallucinations" (where AI generates misleading information), posing potential risks to corporate brand image and clients' trust. Consequently, we are relatively cautious about commercial development in this field, and the traditional customer service model remains dominant. To address these challenges, Gamania launched the Vyin Brain, a text customer service AI chatbot solution. We have innovatively and independently developed two key technologies, creating a five-pillar framework that mimics the human brain. This approach separates AI's "knowledge center" from its "language center," to fundamentally resolve the structural problem of AI hallucination. Additionally, we have adopted a Distilled RAG architecture as the "knowledge center" to enhance the accuracy of data indexing and comprehension, while ensuring accuracy, security, and control, thereby effectively managing AI hallucination. This significantly improves accuracy compared to mainstream RAG architectures.

For example, the Vyin Brain text customer service chatbot has been successfully integrated into MapleStory (New)'s customer service system. This has led to a substantial reduction in customer service cases during peak periods, even to levels comparable to off-peak seasons, indicating its effectiveness in handling a large volume of repetitive customer service requests. For the newly developed cross-platform large-scale combat game, Wars of Prasia, the adoption of the Vyin Brain text customer service chatbot resulted in an impressive self-resolution rate of 97% of customers' inquiries.

## Vyin RecSys & Vyin Star interactive conversational services

Leveraging Vyin AI's technological advancements, Gamania enhances operational efficiency and delivers superior customer experiences using its cutting-edge technology. Vyin RecSys and Vyin Star are specifically designed to meet the needs for other AI application scenarios. Vyin RecSys can instantly analyze conversations from Vyin Brain and recommend the most contextually relevant information to users in real time. At the same time, it leverages Vyin Star for AI-generated images and voice technologies, using licensed virtual celebrities to drive product sales—creating an innovative AI-powered MarTech application.

## Vyin Star technology integration capabilities

**AI image generation (visual image)**
It utilizes authorized celebrity portraits or customized training models, fused with brand style, to create exclusive brand images.

**AI voice technology (verbal expression)**
It enables communication with customers with a human touch through highly realistic, celebrity-authorized, or IP-authorized voices.

**Vyin Brain (core brain)**
It ensures no AI hallucination and guarantees accurate and credible conversations that align with brand image and guidelines.

**Vyin RecSys (precise advertising)**
It is already applied in gaming, entertainment, e-commerce, media, customer service, and FinTech sectors to expand enterprises' revenue.

## "AI DJ Heart" Music Recommendation System

In December 2024, Vyin AI launched a brand new AI music recommendation system, "AI DJ Heart," which was first applied at the "AI Fashion Exploration Station," a large tech-entertainment event. This system fundamentally changes how music fans search for and explore music. It allows users to chat with AI idols and input text about their feelings to receive a personalized playlist that fits the mood. In addition, the lighting changes in sync with every song, creating a mesmerizing, interwoven experience of sound and light that immerses users in the perfect fusion of music and technology.

This innovative system not only enhances the efficiency and enjoyment of music discovery but also showcases Gamania's tangible achievements in promoting the integration of AI and culture, thereby opening up new possibilities for the diversified development of the future digital music ecosystem.


▲ AI virtual host at Taipei New Year's Eve Party


▲ Vyin AI has set up an "AI Trend Exploration Station" at the Xinyi Xiangti Avenue Plaza

# AI CUSTOMER SERVICE

As a customer service company that originated in the gaming industry, Gamania has been at the forefront of digital innovation. Since 2024, we have actively embarked on a path of AI transformation and upgrade and dedicated ourselves to deeply integrating years of customer service experience with AI technology. This aims to propel the customer service industry toward a more efficient and intelligent future. We aim to provide comprehensive, intelligent solutions for user management and aspire to be a key partner for enterprises in their digital transformation journey. This commitment underscores our long-term dedication to innovation, digital-driven growth, and sustainable development.

Gamania's development strategy for Gamania CRM focuses on three core aspects:

**POINT 01** Integrating internal AI systems and proprietary tools to help enterprises quickly adopt AI customer service, thus lowering the technical conversion barrier and cost.

**POINT 02** Analyzing common issues from service data and developing industry-specific, customized AI tools for broad application in customer service, marketing, and member engagement scenarios.

**POINT 03** Promoting the standardized design of AI modules to enhance the cross-scenario capability of our solutions, reduce rework processes, and improve resource utilization efficiency, thereby embodying the concept of low-carbon, high-efficiency green technology

Gamania CRM is a significant achievement developed in collaboration with Vyin AI. This system leverages proprietary technology to create a comprehensive, one-stop integration framework. With an innovative AI robot brain architecture adopted, it combines natural language processing (NLP), semantic understanding, contextual memory, and an intelligent recommendation engine, with abilities for continuous learning and cross-platform integration. Compared to traditional, menu-based chatbots, Gamania CRM can provide more contextually relevant and personalized responses based on users' questions and historical interaction records, thus significantly improving problem-solving efficiency and customer satisfaction.

Enterprises often face challenges when implementing AI customer service, such as insufficient quality of training data, difficulties in process integration, employee resistance to new tools, and user experience breakpoints. To effectively address these challenges, we optimize the implementation process through the following measures:

| Corpus building and optimization | System integration | Internal promotion and education and training |
|---|---|---|
| Developed industry-specific knowledge graphs and introduced corpus refinement models to enhance the accuracy of AI responses. | Seamlessly connected AI customer service with CRM, knowledge bases, and ticketing systems, to improve process synergy and efficiency. | Promoted AI-related education and training, implemented a hybrid customer service model (AI + human) to ensure that customer service personnel can effectively work with the system. |

# AI CUSTOMER SERVICE

In implementing the above strategies, we have gradually launched various practical applications of AI customer service. Through real-world cases, we have verified their effectiveness and steadily advanced the implementation and optimization of AI customer service. Currently, Gamania CRM is practically applied across the Group's multiple products and services, including MapleStory (New), Wars of Prasia, Lineage M, Gamania's members, and hidol.

Throughout the year, we accumulated a total of approximately 230,000 automated response conversations, achieving a self-service resolution rate of 96%, with a 9% growth rate. This effectively alleviated customer service pressure during peak periods. Approximately 35% of all customer service inquiries are resolved within 2 minutes, significantly reducing customers' waiting times and effectively enhancing service resilience.

Annually, approximately **230,000** automated response conversations have been accumulated.

The self-resolution rate is **96%**

with a growth rate of **9%**

Approximately **35%** of all channel customer service inquiries are resolved within **2 minutes**

Close collaboration between AI and human customer service has significantly enhanced real-time customer interaction and user experience. We continuously optimize service processes and content through data analysis, to effectively enhance overall service efficiency and brand trust. We have achieved a 67% reduction in average first response time, and our annual customer service satisfaction has consistently remained above 95%.

**The average first response time has been reduced by**

**67%**

**Overall customer satisfaction has consistently remained above**

**95%+**

**throughout the year**

gamania



# AI NEWS ANCHOR "NIKI"

Virtual AI figures possess multilingual capabilities and enormous potential in media, tourism, and customer service. In the future, they can serve as tourism ambassadors, brand endorsers, and provide more real-time, interactive, and personalized services for immediate news broadcasting, local tourism information, or product customer service.

## AI News Anchor "Niki"

Our subsidiary, NOWnews, successfully launched its AI news anchor "Niki," enabling 24/7 news broadcasting. The content covers NOWnews's daily production of two hundred real-time news articles, spanning diverse fields, such as politics, sports, current affairs, entertainment, and weather, with simultaneous live-streaming on YouTube and OTT platforms. Beyond online platforms, Niki has further expanded into physical public spaces. For example, she collaborates with the large electronic billboard in Ximending for regular weather forecasts and is stationed at major police stations, the Anti-fraud Hotline 165, and its fan page, to assist in raising awareness against new types of fraud.


Simultaneously, Niki actively collaborates with government, local agencies, and industry partners, while working with the National Immigration Agency to produce policy announcements in Vietnamese and Indonesian languages and proposing collaboration plans for the Taipei City Department of Information and Tourism and various industry partners. We aim to expand the application of virtual AI figures to more public spaces and develop scenarios that more align with public needs.

Currently, Niki speaks Mandarin, English, and Vietnamese languages, with plans to further expand to include Japanese, Korean, Indonesian, Filipino, and Thai languages to meet the needs of new immigrants, overseas tourism, and customer service. The ability to switch between multiple languages addresses immediate needs, eliminating the time required for translation, proofreading, and voiceovers. Technologically, this virtual AI figure integrates a highly automated content management system with AI voice and image generation technology, to ensure real-time content updates and broadcasting. By strengthening deep learning model training, we continuously improve voice naturalness and interactive response capabilities, to maintain high-quality voice interaction performance.

For our short-term targets, we will focus on media communication and interactive entertainment, which includes testing and launching interactive messaging features for live stream chat. Our mid-to-long-term plan is to expand into areas, such as tourism, digital content marketing, and customer service. In the future, we will also invest in more advanced emotional recognition and real-time interaction technologies, to enable virtual humans to possess a higher degree of humanized communication capabilities, thus achieving cross-sector and cross-industry applications.

# 2.1.3 INNOVATIVE AND DIVERSIFIED MANAGEMENT



## Diversified Gamania

For a long time, Gamania has primarily been perceived as a gaming company. However, in recent years, the Group has actively promoted business diversification. Under a strategy of diversifying operations, guided by a blueprint for developing in the internet technology industry, Gamania focuses on game operations, technology R&D, and expanding the scope of AI technology applications. We are committed to developing electronic payments, digital media, e-commerce, social platforms, and various new innovative services, combined with the innovative incubation of original IP content. We aspire to provide more globalized internet technology services through both internal and external innovation.

| Key focus areas | 2024 achievements |
|---|---|
| Game operations | ✦ MapleStory (New) underwent its 6th class change update, creating record revenue, and a 20th-anniversary celebration is scheduled to be held in 2025.<br>✦ We launched the Group's first cross-platform MMORPG, Wars of Prasia, to continuously expand its player base in Taiwan, Hong Kong, and Macau.<br>✦ We developed the mobile game “CONVENIENT STORE Pocket Edition” on our own, with product content adjusted based on test feedback and features like brand collaborations incorporated.<br>✦ We developed the mobile game “CHIBI MARUKO CHAN - Cheerful Spirit” on our own, with lean operations in Taiwan and overseas. Accumulating user profile data from various countries paves the way for future self-developed products to enter international markets and allows Gamania to learn from practical experience, thus reducing future self-development risks.<br>✦ We developed the RPG turn-based mobile game on our own, to extend new original IP works in collaboration with famous IP in Taiwan. |
| Technology R&D | ✦ We developed the mobile device security product, appGuard, which features four core functions to effectively help users prevent hacker attacks and sensitive data leakage risks. We have also achieved Common Criteria EAL2 international security certification for the product. |
| AI applications | ✦ Gamania established the AI Innovation Lab and launched Vyin AI, an innovative AI technology brand primarily offering B2B services. Vyin AI has independently developed three core products: Vyin Brain, Vyin RecSys, and Vyin Star, designed to help enterprises effectively utilize AI tools in their respective fields.<br>✦ We launched VieFor, a creative interactive social platform, which generated a personalized AI virtual avatar in real time based on the user's interest tags using AI technology.<br>✦ We incorporated GAI technology into the fan interaction social platform, hidol, to enable virtual idol voice interaction and provide users with an immersive experience. |


▲ hidol fan community platform user interface

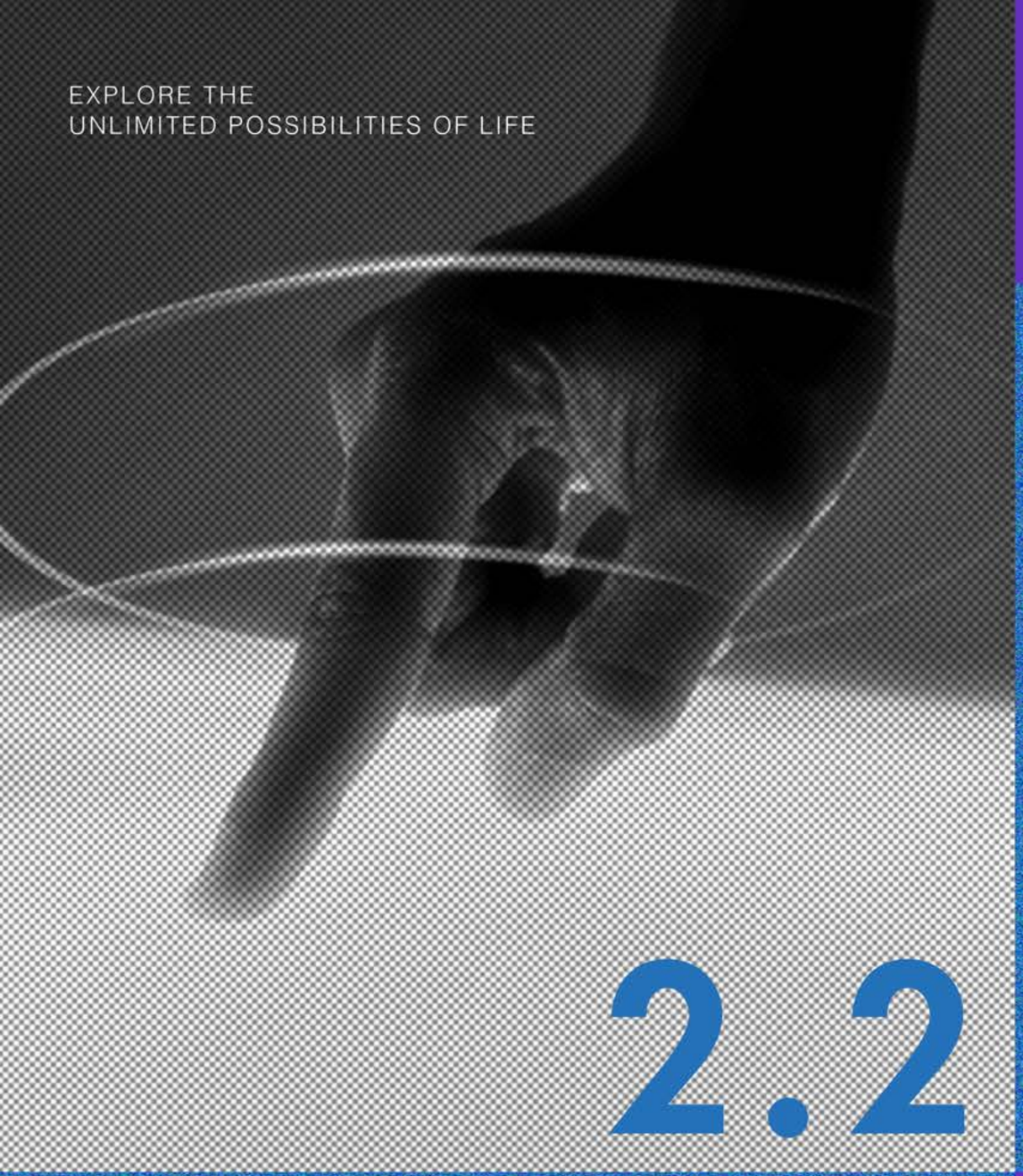
For internal innovation, we encourage employees' intrapreneurship and provide the required entrepreneurial environment, capital, and various resources, not only satisfying employees' needs for self-fulfillment and retaining outstanding talents, but also stimulating the active performance of the organization and sparking new growth of the Group.

As for external innovation, strategic investments in start-ups are made to acquire key technologies, accelerate product development, and gather innovative management/technology teams and talents. The purpose is to enhance the Group's competitive advantages and create new business development opportunities, and thereby boost the growth momentum of the Group's medium- and long-term revenue and profit.

## Innovation investment

Gamania Group, alongside senior media producer James Chan from the Taiwan Creative Content Agency, collaborated with six artist management agencies to launch the girl group audition show "NEXT GIRLZ" to create six girl groups and one hidden group. Each week, the show incorporated different themed concepts. The scoring mechanism combined on-site professional judging with hidol's "SHOW Together" online popularity voting, to create an interactive, online-to-offline audition experience. The show realized high participation and generated significant buzz. This transformed viewers from passive observers into crucial participants in artists' growth journey, to showcase the evolution of content entertainment in the digital era. "NEXT GIRLZ" won the "Variety Show Award" at the 59th Golden Bell Awards in 2024 as the judging panel recognized its success in promoting Taiwanese pop culture and its profound impact on future entertainment trends.

Following the success of "NEXT GIRLZ," Gamania launched "Atomic Boyz II" in 2024. This project also involved a cross-platform collaboration with the Group's hidol platform, allowing 54 contestants to concurrently manage fan communities on hidol, thus building a more multi-dimensional idol management system. In the future, Gamania Group will continue to invest in and enhance its collaboration with the entertainment industry. Through the empowerment of digital platforms and AI technology, we aim to expand possibilities for artist and program collaborations, nurture new-generation creators and idol groups, and build a more interactive and sustainable content ecosystem.




SUSTAINABILITY
REPORT

(2024)

# INNOVATION AND PATENTS

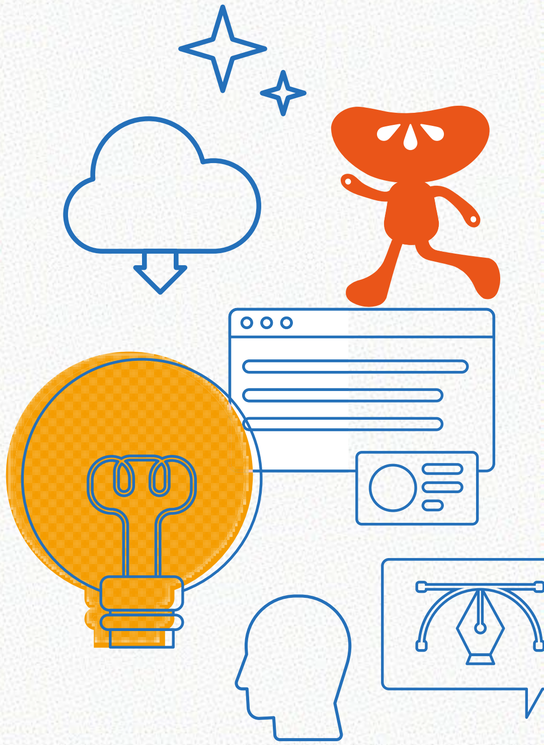
## 2.2

# 2.2.1 PATENTS AND INTELLECTUAL PROPERTY



## Patent strategy

Gamania constantly pursues R&D innovation, allocates necessary R&D resources based on operational goals, and has established an IP Management Plan. This plan aims to systematically promote the identification, protection, and utilization of relevant assets, reduce risks arising from infringement or non-compliance. A robust IP management system helps reduce potential operational risks and management costs, enhances R&D efficiency, boosts overall corporate competitiveness, and consequently strengthens the Company's position in the industry.



## Patent objective

The Company regularly submits its Management Plan for Intellectual Property Rights to the Board of Directors every year; the latest submission date was November 6, 2024. In terms of IP management, the Company set two key objectives for 2024:

### 1 Strengthening employees' awareness of intellectual property protection

**2024 chievements**

- Two employees obtained self-evaluator qualifications to have the right to sign self-evaluation reports.
- Increased IP confidentiality investigations and reminders for new hires and departing employees.
- Planned internal training courses

**2025 objectives**

- Planned internal training courses focusing on IP protection awareness to enhance the entire organization's understanding of and compliance with IP rights.

### 2 Refining the IP management system

**2024 chievements**

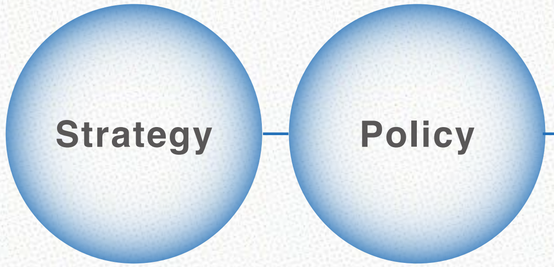
- Revised the method for controlling and maintaining the retention period of confidential documents.
- Established patent search checkpoints during the R&D process to identify the scope of relevant patent rights early on.
- Reviewed, modified, and newly established 29 systems and documents.

**2025 objectives**

- Actively responded to relevant indicators in the TPEx's Corporate Governance Evaluation, and adopted the TIPS to strengthen the Company's IP management system, with the aim to obtain TIPS A-level certification by 2025, thereby promoting the upgrade and perfection of internal IP management.

# Intellectual property policy

In the rapidly evolving digital entertainment landscape, patents have become a critical asset for protecting innovation and maintaining market competitiveness in the gaming industry. Particularly in gaming, beyond system architecture, innovative gameplay and interface design are highly reliant on creativity and technology, necessitating protection through the patent system to prevent plagiarism and infringement. To properly use and protect the Company's IP, Gamania has established an "intellectual property policy." which outlines its IP strategy to reduce business risks, increase corporate profitability, achieve industry leadership, and effectively avoid legal risks and economic losses due to infringement.




| | | |
|---|---|---|
| Reducing operating costs and risks | Regulations for Utilization of Intellectual Property Legal Resources | Sharing information and resources to reduce legal costs. |
| | Regulations for Protection of Intellectual Property | Protecting intellectual property from infringement and avoiding infringement upon others to effectively control the occurrence of risks and mitigate damages. |
| | Regulations for Trademark Management of Self-made Products | Clarifying the ownership of trademark rights to avoid waste of efforts due to repeated trademark registrations within the Group. |
| | Regulations for Trademark Management of Distributed Products | Starting the trademark management process upon knowing that the Company is going to be the agent for a game, to avoid further operational troubles resulting from malicious preemptive trademark registration in authorized regions. |
| | Regulations for Intellectual Property Audit | Supervising and implementing various intellectual property regulations through audits to ensure that strategic objectives are achieved. |
| Improving corporate profitability | Regulations for Patent Management | Managing the Group’s patent contents to accumulate profitable intellectual (intangible) assets for the Group. |
| | Regulations for Copyright Management | Managing the Group’s creation contents to accumulate intellectual (intangible) assets for the Group. |
| | Regulations for Utilization of Intellectual Property | Making full use of the accumulated intellectual assets of the Group in various ways to increase profitability. |
| Achieving industry leadership | Regulations for Intellectual Property Incentives | Promoting the Group’s R&D and creative capabilities and qualities, and accumulating as well as increasing competitive strengths through incentives, to achieve industry leadership in a stepwise manner. |
| | Regulations for Patent Management | Effectively managing the Group’s internal capabilities and resources of patent R&D to raise the threshold for competition. |

# 2.2.2 PATENT ACHIEVEMENTS



## Innovation patent application

### Patent R&D strategy

Gamania continuously strengthens its IP portfolio, and views patents as a tangible manifestation of product competitiveness and R&D achievements. The Company's patent R&D strategy is centered on product line development, with a specific focus on applying for patents for key technologies related to hidol and VieFor, to ensure that innovation is transformed into Gamania's long-term competitive advantage.

### Patent R&D fields

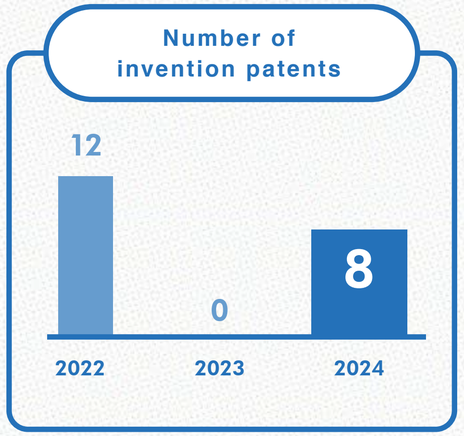
In recent years, Gamania has focused on R&D in areas of AI interactive technology and immersive social experiences, to closely align with future and technological trends, thus laying the technical foundation for emerging platform applications beyond gaming.

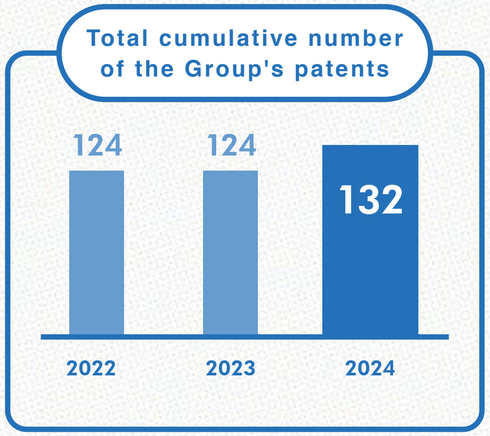
### Patent R&D application results

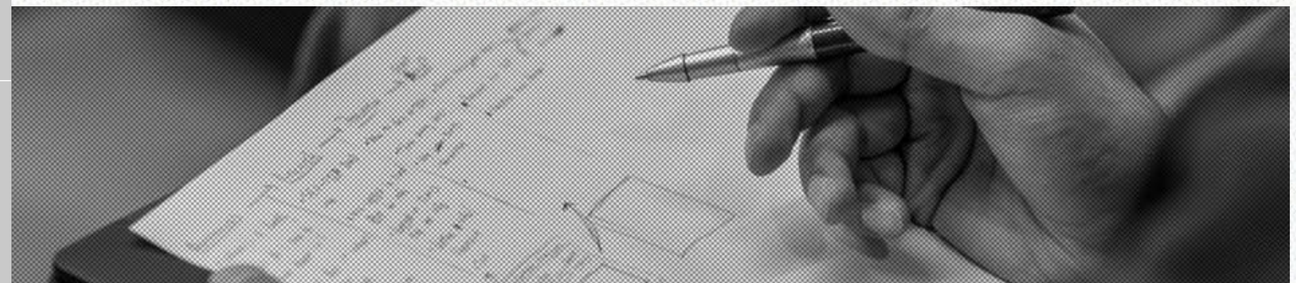
Gamania's current patent count is above the industry average in the gaming sector, with an average annual growth rate of 11.11% over the past three years, showing Gamania's consistent growth in technological innovation. Through continuous patent development, the Company has not only strengthened the protection of its proprietary technologies but also further enhanced its competitive edge in key areas.

## Patent count over the years

The Company is aware of what patents strategically mean to the Company’s long-term development and brand value, and actively invests in R&D and innovation to protect the results. As of 2024, the Group has filed 132 patent applications domestically and internationally, with 115 patents granted. In the future, the Company will continue to strengthen R&D investment and technological innovation and actively acquire domestic patent rights to further enhance overall market competitiveness.



EXPLORE THE
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SUSTAINABILITY
REPORT

(2024)

# 2.3

# INFORMATION SECURITY

2.3.1 Information security management

2.3.2 Protection of network security

# 2.3.1 INFORMATION SECURITY MANAGEMENT



## The Group’s Cybersecurity Policy

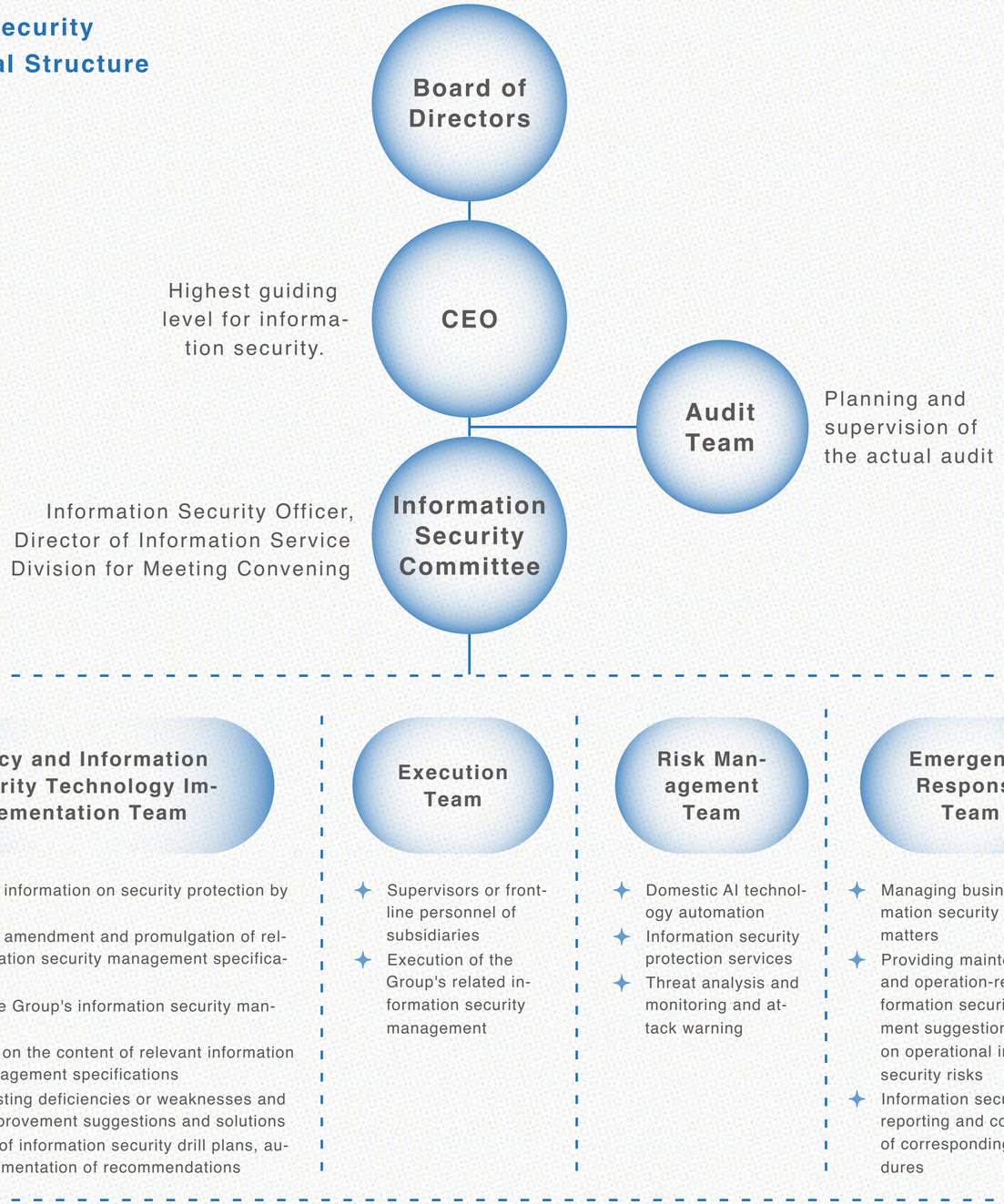
The Company has established a "Group Cybersecurity Policy," approved by the CEO. It serves as the guidelines for the Group's establishment of systems and procedures regarding information security and network security management, and information and communication management of computer systems, software and hardware, so as to ensure the confidentiality, integrity and availability of the Company’s important information. We adhere to the "Guidelines for Cybersecurity Controls for TWSE/TPEx Listed Companies" and continuously refine the Group's cybersecurity policy based on ISO 27001 standards. We regularly review the Company's status regarding threat intelligence, information security for cloud service usage, ICT, physical security monitoring, configuration management, information deletion, data masking, data leakage prevention, monitoring activities, and secure coding to comply with the requirements of international information security control measures.

## Information Security Organizational Structure

The "Group Information Security Management Committee" (hereinafter referred to as the "Information Security Committee") is the highest guiding organization for the Company's information security. The Group's Chairman and CEO serve as the top supervisor. Since the Company's establishment, the Chairman has possessed extensive experience in information security governance and also serves as the representative of Gamania CloudForce, a cybersecurity company under the Group. This role involves comprehensively supervising and reviewing the implementation of various information security management measures, to fully demonstrate the Group's great emphasis on and support for its cybersecurity system. The committee members are specialists appointed by various departments, with job levels spanning heads of departments and division managers. A "Chief Information Security Officer (CISO)" position has been established, with the Information Service Division centrally managing cybersecurity-related matters. Additionally, professional information security technical teams are engaged to provide various information security services. In 2024, the committee convened twice, chaired by the Group’s CEO. These meetings comprehensively reviewed and made decisions on the implementation of the information security management system, operational risk assessment, cybersecurity project progress, and response strategies, to ensure alignment between information security strategies and operational needs.

Under the guidance of the Group's operational strategies and government laws and regulations, the committee is responsible for formulating the overall information security policy, promoting security protection measures, patching system vulnerabilities, monitoring abnormal incidents, and responding to major events. The Plan, Do, Check, Act (PDCA) management cycle is fully implemented to ensure that the risk management system is consistent in what we say, write, and do. With continuous improvement at its core, this approach enhances the safety and resilience of our operations and services.

## Information Security Organizational Structure




To enhance cybersecurity governance and execution effectiveness, the Group has established various functional teams under the Information Security Committee. The "Group Information Security Organization Management Regulations" clearly define the responsibilities of each team to continuously promote information security-related matters and provide feedback on information security management indicators. The Policy and Information Security Technology Promotion Team coordinates the collection of security information and proposes management optimization suggestions. The Executive Team, composed of personnel from each unit, is responsible for implementing cybersecurity operations and promoting regulations and holding coordination meetings twice a year (first and second half). The Audit Team plans and supervises internal audit operations. The Risk Management Team specializes in collecting and analyzing threat intelligence. The Emergency Response Team responds immediately, allocates resources, and performs recovery work when major information security incidents occur.

We continuously monitor amendments to applicable regulations and promptly calibrate the Group's cybersecurity-related management documents. The Information Security Committee holds annual information security management review meetings to examine the execution effectiveness of cybersecurity system management and implementation. This ensures that the Group's information security practices comply with regulations and regulatory requirements to mitigate security risks, strengthen protection, and respond to evolving information security threats.

# Information security management strategy and measures

## Information security management strategy

Gamania's information security strategy focuses on the aspects of personnel, systems and management. In compliance with national laws and regulations, the Company manages customers' and members' digital assets through risk analysis and control.

### People

We offer tiered educational training. This includes general cybersecurity courses for all employees and specialized functional information security lectures or courses for IT personnel.

### System

We adhere to the "Guidelines for Cybersecurity Controls for TWSE/TPEx Listed Companies" and reference ISO 27001 standards to revise or introduce new information operation management regulations.

### Management

We define clear responsibilities for each team within the Information Security Committee, hold regular meetings, raise awareness of cybersecurity policies and related security control requirements, and promptly review implementation and feedback.

Gamania continues to pursue its objective of becoming a "full-ecosystem technology enterprise" by actively implementing its core strategy of "promoting sustainable development". We have adopted external cybersecurity risk and security management performance ratings. Excellent ratings can enhance our corporate brand image, and attract potential clients or partners, thereby increasing the enterprise's overall value. This also provides investors with insight into the Company's information security management performance and the stability of our information security infrastructure, and serves as an important reference for investment decisions.

# Information security management measures

| Management stage | Management method |
|---|---|
| Early prevention | **Information security management measures**<br>● Every year, the Company establishes and adjusts the information security policy and related management regulations or procedures in accordance with the current laws and regulations, industry trends, and stakeholders' requirements. This includes a total of 13 regulations covering the aspects of data protection, operational security, information operation outsourcing, password management, and so on.<br>**Information Operations Security Testing**<br>● Based on the nature and risk of different information operations, business operations are classified, necessary protection measures are set, and various information security management assessments are conducted on a regular basis; security inspections are conducted for information and communication service systems, website or host weakness scanning, and penetration testing, which requires the system to execute source code scanning security testing and complete system weakness repairs before the system goes live or when making major changes, to reduce the impact of human or natural factors on corporate operations; also, to understand and evaluate the corporate network environment and system security to verify the security level and effectiveness of the current information security protection settings.<br>**Implementation of security operations center (SOC) & endpoint detection and response (EDR)**<br>● The domestic third-party security technology consultant team is invited to monitor and stay on top of the security alerts and intelligence for better and faster detection and response.<br>**Evaluation of the Effectiveness of Information Security Measures**<br>● The Information Security Committee of the Group convenes two regular meetings per year to review and adjust the information security strategy and mechanisms in a timely manner, as well as to review the effectiveness of regulatory implementation and follow up on internal audit findings.<br>**Encouraging the adoption of International Information Security Management Standards (e.g., ISO 27001)**<br>● Annually, we engage impartial third parties to conduct external audits, to comprehensively review the cybersecurity management system, strengthen the information security management framework, and establish various operational requirements and incident response plans to enhance overall information security control and response capabilities. All the Group's subsidiaries have obtained international information security certifications (please refer to the Information Security Certifications List for details).<br>● GAMA PAY has obtained the "Mobile App Basic Security" certification for consecutive years since 2019, and has been certified by a third-party testing agency.<br>**Cultivating employees' information security awareness**<br>● Annual email social engineering drill, simulate hacker attacks and create highly simulated attack emails to send decoy letters to employees to understand the true state of employees' information security awareness and basic defense capabilities in the face of social engineering, phishing, and other behaviors. Employees who have successfully been deceived are given targeted education programs to arouse employees' instinctive responses to threats, adjust information security behaviors, and build the ability to stop, see, and listen.<br>● Information security risk-driven education and training allows proactive defenses to precede attacks. Internal information security trainings are also organized to enhance information security awareness and awareness among information and communication management personnel and general colleagues, understand the importance of information security and various possible security risks, and improve Information security awareness among employees, and thereby change their behavior. In 2024, this was designated as a compulsory courses for all employees of the Group, in order to comprehensively increase their awareness of information security, achieving a 100% completion rate.<br>● Information security e-newsletters are distributed from time to time to supplement the information security awareness propaganda, in order to enhance and strengthen the awareness of information security awareness among employees, and cultivate the habit of security inspections. |

## Information security management measures

| Management stage | Management method |
|---|---|
| In-process implementation and review | **Operational information self-evaluation**<br>● An evaluation mechanism has been established for various information security management measures, and each operating subsidiary is required to conduct quarterly self-evaluations of their information operations.<br>**Endpoint security management**<br>● An endpoint protection mechanism is in place to effectively reduce the information security gaps caused by the improper use of endpoint equipment.<br>**Backup mechanism for important systems, databases, and files**<br>● The Group has established a comprehensive business continuity and disaster recovery plan, covering backup mechanisms for critical systems, databases, and files. Disaster recovery drills are conducted regularly (at least once a year). Drills include written simulations and actual scenario testing to ensure the effectiveness of restoring IT infrastructure access rights and functionalities and confirm immediate restoration of access and system functions during anomalies, to quickly return to normal or acceptable business levels to ensure continuous operation of core service systems and uninterrupted business.<br>**Annual Internal Information Security Audit**<br>● Each year, the headquarters of the Group draws up an information security management audit plan to be implemented. Operating subsidiaries are accordingly interviewed and sampled in terms of the implementation status of various information operations, and the audit results are reported to the Information Security Committee of the Group. |
| Post-response and recovery | ● An information security response and reporting mechanism is established to ensure the rapid and thorough handling and recovery in the case of information security incidents.<br>● In 2024, the Company did not encounter any major network attack or incident, and was not involved in any related case of legal dispute, supervision or investigation. |

# Information security risk management

In 2024, Gamania reviewed and adjusted its "Group Operational Business Information Security Management Guidelines" to continuously enhance the completeness of its information security management. We strengthen the overall security of information systems across networks, operating systems, databases, and applications, to ensure stable operation of information systems and protect the security of information equipment and data documents, while preventing intrusion and damage from various threats, thereby reducing operational risks. For any factors that may pose a threat to operational information, the Company collects security indicator data and requires relevant information systems and services to undergo regular or irregular necessary security checks to enhance defense effectiveness.

## Information security risk management objectives

Information security risk management is a continuous cyclical mechanism. Through our management processes, we analyze cybersecurity risks in operations and assess risk impacts and establish appropriate protection mechanisms, monitor measures, and responses to minimize losses and maximize profit for corporate operations. The Group's targets are as follows:

1. Maintain the continuous operation of the Group's cybersecurity systems.
2. Prevent malicious intrusion and damage from external threats, such as hackers and viruses.
3. Prevent improper human intent and illegal use of information assets.
4. Prevent the leakage of sensitive information.
5. Prevent human error incidents.
6. Maintain physical environment security.

## Identified Information Security Risks and Corresponding Countermeasures

| Information security risks | Potential impacts | Countermeasures |
|---|---|---|
| **Compliance with legislation and standards** | On October 12, 2023, the Ministry of Digital Affairs promulgated the "Regulations Regarding the Security Maintenance and Administration of Personal Information Files in Digital Economy Industry," with which the security maintenance plan for personal data files shall be completed within three months from the enforcement date of the regulations, and personal data shall be processed after business termination. | • On January 12, 2024, the Company finalized the "personal data protection policy" and the "security maintenance plan for personal data files" to process and protect data in all aspects.<br>• We have successfully obtained ISO 27001 certification through verification by a third-party certification organization and are continuously maintaining its validity. |
| **Cyberattack** | When an enterprise's IT personnel create insecure rule settings or fail to follow established information operation procedures, it creates vulnerabilities, which can then be exploited by malicious individuals using technical means to intrude, damage, or steal from target systems or networks, thus directly impacting the enterprise's operations. | • To counter this, we have established the "Group Cybersecurity Policy" and "OA Network System Management Regulations". These policies mandate essential protective measures during environment setup, including firewall segmentation, network segment partitioning, secure tunnel access design and planning, the use of encrypted communication protocols, and the implementation of intrusion detection and blocking mechanisms.<br>• We conduct regular and irregular security checks (such as security health checks, vulnerability scans, and penetration tests) on public-facing websites and promptly patch any identified weaknesses.<br>• By gathering cybersecurity intelligence and vulnerability alerts, we strengthen our systems and patch vulnerabilities. This significantly reduces the likelihood of attacks exploiting known weaknesses. |
| **Viral threats** | Viruses can be carried through various vectors, including previously visited websites, attachments or links containing malicious programs in emails, malicious links or executable files from social media websites, portable storage media, unauthenticated documents, files, software or applications. | • We have established a multi-layered defense and detection system, and fully implemented an endpoint protection system to perform monitoring and protection with a central management approach, thereby reducing the risk of malware infection and attack.<br>• Annually, we conduct irregular email social engineering drills for employees by using highly realistic simulated emails to test their vigilance against unsafe messages. Employees who fall for these simulations receive targeted training, followed by post-course assessments to evaluate learning effectiveness. We also analyze incorrect answer patterns to adjust future training plan. |

## Identified Information Security Risks and Corresponding Countermeasures

| Information security risks | Potential impacts | Countermeasures |
|---|---|---|
| **Operational disruption** | The inability of cybersecurity systems to operate continuously would halt external business services, thus impacting brand image, revenue, and customer and shareholder trust and rights. | • The maintenance and operation are based on the “Group Cybersecurity Policy" and the "Group Operational Business Information Security Management Guidelines." We conduct an annual information operation continuity drill for the core services, so as to verify the continuity of services after system restoration and ensure the security of sensitive information. With the drill also covering incident reporting and handling, relevant personnel can become more familiar with the incident handling procedures through a complete drill, which helps strengthen the response capability for information security incidents, cushion operational impact, and lower the risk of loss of services, assets, and finance. |
| **Insufficient awareness of information security in employees** | Employees, due to their job responsibilities, directly interact with the Company’s operational systems and data. Operations not in line with security control requirements, unsafe usage habits or handling methods, or even the accidental loss of IT equipment assigned by the Company without proper necessary measures, could lead to the use of unknown software on the device or malware infection. This could result in the leakage of sensitive operational data, thus impacting internal system security and trade secrets and leading to data breaches and information security incidents. | • To address this, we have an annual mandatory general education course on cybersecurity for all employees, to provide regular training to all staff. Details of the annual training can be found in section 2.3.1 Information security management - information security education and training.<br>• We also periodically publish information security -related information and reports through the "Cybersecurity Zone" on our information service collaboration platform, to develop employees' basic information security knowledge and reduce the opportunity for human error to create security vulnerabilities.<br>• Through social engineering drills, we verify employees’ information security awareness and enhance their understanding of privacy, personal data laws, data protection practices, and cybersecurity behaviors.<br>• The employees in IT-related positions are encouraged to attend various seminars on the topics of information security, information operation management, etc. to keep track of the emerging industry trends as well as the information security trends and technologies, thereby enhancing their risk prediction capabilities. |
| **Emerging Information Security Threats** | The widespread adoption of cloud services and GAI tools has improved operational efficiency and accelerated technical learning but has also led to an increase in cybersecurity risks. | • To mitigate these risks, we plan to amend the "Group Cloud Service Usage Management Regulations" to add selection and evaluation mechanisms as well as security requirements during usage.<br>• We also plan to adopt external information security risk and security management performance rating tools and data leakage prevention tools in 2025. Leveraging 25 risk vectors of external risk ratings, we will understand the organization's specific exposures and prioritize weaknesses or vulnerabilities identified in detection results for patching. Simultaneously, data leakage prevention tools will be used to block unauthorized users from accessing, misusing, or leaking sensitive data. |

# Enhancement of information security technology

To respond to the rapidly changing digital threat environment, Gamania continues to strengthen its information security technology through multi-faceted measures, such as policy formulation, talent cultivation, real-time monitoring, and industry exchanges, thereby enhancing its information security defense resilience.

## 01 Customized information security protection

Gamania adopts flexible technical deployments based on each subsidiary' operational characteristics and risk profiles. Taking the EDR protection policy as an example, when adopting this policy, Gamania develops tailored information security strategies for different types of devices (such as Pcs or servers), business needs, and data sensitivity. This ensures that each company possesses the information security protection capabilities most in line with their actual requirements as subsidiaries have different purposes and targets for endpoint protection.

## 02 Institutionalized information security training

Gamania deeply understands the importance of information security talent for corporate information security protection and actively promotes an institutionalized information security talent training mechanism.

## 03 Real-time information security monitoring

In 2024, we planned to enhance our Information Security Monitoring Center's services for 2025 by implementing a real-time security monitoring dashboard. This will allow us to instantly keep abreast of the system status. Concurrently, we are leveraging AI capabilities to summarize search results and intelligently abstract information and relevant messages, thereby reducing the time needed for manual repetitive checks and analyses.

## 04 Regular information security exchanges

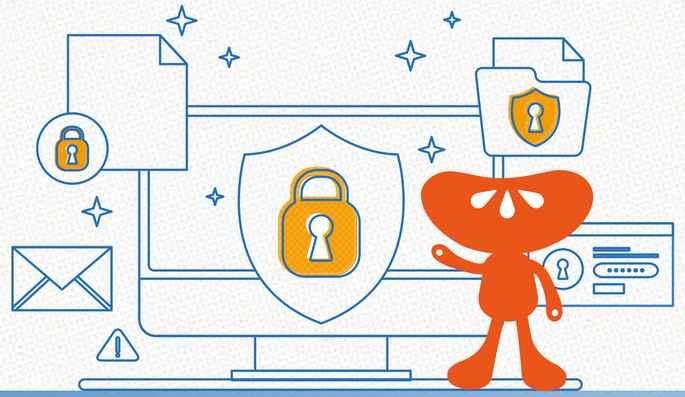
In 2024, we planned to enhance our Information Security Monitoring Center's services for 2025 by implementing a real-time security monitoring dashboard. This will allow us to instantly keep abreast of the system status. Concurrently, we are leveraging AI capabilities to summarize search results and intelligently abstract information and relevant messages, thereby reducing the time needed for manual repetitive checks and analyses. The forums covered diverse topics, such as the latest threat trends, information security defense strategies, and technology application sharing, to offer valuable practical reference. They also significantly benefited participants in terms of information security awareness and practical application, thus achieving the intended promotional effects. Moving forward, we will continue to monitor global information security trends, including information security risks from GAI and security factors for enterprises' cloud adoption.

Note: EDR combines real-time continuous monitoring, endpoint data collection, and advanced cross-correlation to detect and respond to suspicious activities on host and endpoint connections. This allows the information security team to make judgment and cross-comparison analysis more rapidly, and detect events more specifically.

## Professional information security management

As of the end of 2024, our employees collectively hold 40 professional technical certifications in information security management.

| Name of information security certification issuing organization | Number of certificates held by the end of 2024 |
|---|---|
| EC-Council | 19 |
| OffSec | 1 |
| ISO 27001 LA | 13 |
| ISC2 | 1 |
| Google Cloud Platform | 2 |
| AliCloud | 2 |
| Microsoft Azure | 2 |



# Information security reporting and handling procedures

In 2024, the Company amended its "Information Security Incident Handling Procedures" and redefined information security incident classification and grading standards (including escalation and de-escalation) as well as reporting and handling levels in the "Information Security Incident Notification and Response Operations". Regarding changes compared to the past, a briefing session was held for the task force members of the cybersecurity organization, to require them to disseminate relevant information on changes horizontally across units. Concurrently, the information on "24-hour information security incident reporting hotline and email" will be posted on the Company's internal digital display.

All the Group's employees are responsible for reporting incidents and must promptly notify the IT contact point of their respective unit in the first place. The contact point will conduct a preliminary assessment based on the type and severity of the incident and complete the "Information Security Incident Reporting Record Form". Subsequently, the IT Department, in collaboration with relevant units, will follow up on the information security incident. The IT unit must resolve and fix incidents within the predefined timeframe. After resolution, it needs to provide an incident analysis report and improvement suggestions to prevent similar events from recurring. All information security incident handling results and reports will be periodically compiled into the Monthly Information Security Report for review and retention by the Information Security Committee.

## Information security incident reporting process

**STEP 1** Upon occurrence of an information security incident, immediately report to the IT contact point as per the process.

**STEP 2** Based on the incident type and severity, complete the "Information Security Incident Reporting Record Form".

**STEP 3** The IT unit, in collaboration with relevant departments, resolves the incident within the predefined timeframe.

**STEP 4** After resolution, submit an incident analysis report and remediation suggestions to prevent recurrence of similar incidents.

For information security incidents, the Company has established a review and management mechanism to adopt lessons learned from incidents as a critical basis for strengthening future information security defenses. Whenever an information security incident occurs, relevant units will compile incident records, and work with the Information Security Committee's response team to review the root cause, identify failures in control measures, and propose improvements. If the root cause involves adjustments or enhancements of information security policies, the Information Security Committee will submit a proposal for approval by the highest management representative. After an incident is resolved, the Company will establish an information security resolution knowledge base. This will serve as a practical reference for future training, to further enhance the Company's incident response efficiency and information security defense capabilities. Additionally, improvement measures will be regularly tracked to ensure effective implementation.

## Information security handling procedures

**STEP 01** When an information security incident occurs

- Compile records of information security incidents to build a knowledge base of solutions to prevent recurrence.

**STEP 02** For information security incident handling reports

- Review the root cause of the incident, identify failure points in control measures, and implement improvements.
- If the root cause involves adjustments or enhancements of information security policies, submit a proposal for approval by the highest management representative.

**STEP 03** For information security incident investigation reports

- Periodically track subsequent management measures and report progress to the Information Security Committee.

# Information security education and training

Gamania supports employees in participating in information security-related courses through methods, such as lectures by external consultants and internal/external training, to enhance employees' awareness and technical skills in information security.

| Courses' Name | Participants | Number of participants | Total hours | Completion rate |
|---|---|---|---|---|
| How Hackers Target Enterprises with Cyberattacks | All employees | 1,289 | 429.7 | 100% |
| Email Social Engineering Training | Specific personnel | 241 | 42.3 | 99.17% |
| Cloud Service Security | IT personnel | 37 | 55.5 | 100% |
| Social Engineering and Privacy Protection Case Studies | | | 55.5 | |
| Business Continuity Management | | | 55.5 | |

Note: Specific personnel refer to those who were deceived by simulated phishing emails; they were required to take training the courses again to enhance their information security awareness.

# Supplier information security management

Gamania has established the "Information Operations Outsourcing Security Management Regulations," which outline information security review requirements for outsourced development projects. All the activities of development, installation, maintenance, processing, and management by a third party must be subject to corresponding information security inspection items, e.g. important data privacy requirements, according to the severity of the information security risks that might be involved, to make sure that each supplier is committed to adopting adequate technology and organizational measures for protecting the information processed by them. The information security inspection service provider is required to have the professional information security license to be qualified, and is able to provide inspection services such as source code inspection, vulnerability and penetration testing, etc. so that the outsourced development systems of all subsidiaries have standard security before being implemented or launched. The "Group Operational Business Information Security Management Guidelines" also specify security testing requirements for systems or services before they go live.

# Leading information security awareness in the industry

To foster information security technology exchange within the industry, Gamania leverages its industry expertise by regularly hosting information security forums and periodically sharing information security-related articles. This effort aims to emphasize the importance placed on information security protection by both enterprises and individuals, strengthen information security defense levels, and prevent losses and damage to corporate image due to information leakage. In 2024, Gamania hosted the Hacker Talk forum, with a focus on information security exchange, and experts were invited to offer solutions and break down information security blind spots with real-world examples. This forum aimed to strengthen enterprises' sensitivity to information security risk identification and response capabilities through discussions on diverse information security topics, thus promoting the implementation and deepening of information security concepts in practical work. In 2024, we held three such events and offered seven classes, with a total of 89 participants and an average activity satisfaction rate of 97%.

| | |
|---|---|
| CLASS 1 | [The Long Road to Information Security: My Insights on Entering the Field]<br>[Drone Information Security Strategies and Challenges from a Developer's Perspective] |
| CLASS 2 | [From Information Security Novice to Senior: Experience Sharing]<br>[The Perfect Storm of a Scam] |
| CLASS 3 | [Top 10 Cybersecurity Trends for 2025]<br>[Understanding Optimal AI Attack Prevention Strategies from the MITRE ATLAS Framework]<br>[The Cloud Maze Adventure: Unraveling the Mysteries of Cloud Cybersecurity] |

The forum particularly highlighted the development and challenges faced by information security talent. Addressing the information security talent gap, Gamania advocates that the industry should provide systematic training programs, covering technical knowledge, practical operations, and communication skills, and promote a mentorship system to accelerate the integration of new personnel into the workplace, to foster sustainable talent development in the information security field. Furthermore, Gamania focuses on the information security risks from emerging technologies, such as optimal prevention strategies for AI attacks and potential information security vulnerabilities arising from the expanded application of drones. Gamania encourages enterprise development teams to proactively learn, integrate information security knowledge, and combine it with forward-looking insights into information security trends, including Zero Trust architecture, AI-driven defense, cloud and remote security needs, ransomware and supply chain attack risks, and increasingly stringent information security regulations. We aim to lead the industry in strengthening information security awareness to further drive the overall industry to emphasize on and improve information security technology.

Through continuous investment in information security governance, technological enhancement, and knowledge exchange, Gamania won with the TCSA for "Information Security Leadership Award" in 2024, as the sole winner in the gaming industry. This award not only affirms Gamania's leading position in information security practices but also reflects our proactive efforts in promoting sustainable information security initiatives and fostering a positive industry cycle.

# 2.3.2 PROTECTION OF NETWORK SECURITY



In the digital era, Gamania is deeply aware that network security and user rights are inseparable, a crucial cornerstone for stable corporate operations and sustainable development. To address increasingly complex information security challenges, we continuously strengthen the security of our overall services and strive to provide a safe and reliable digital environment.

In practice, the Company has implemented information security systems, such as firewalls, Intrusion Detection Systems (IDS), and Intrusion Prevention Systems (IPS). We have also established a 24/7 Security Operations Center (SOC), where our information security team analyzes network traffic and abnormal behavior in real time to enhance our overall risk response capabilities. Meanwhile, the Company has successfully obtained ISO 27001 Information Security Management System certification and regularly conducts network security vulnerability scans and penetration tests, to proactively discover and patch potential security vulnerabilities. We maintain close communication with industry partners, share the latest information security intelligence to ensure that our information security defense mechanisms are continuously updated.

Additionally, we clearly disclose the usage methods and precautions for all products and services we offer, to ensure information transparency and users' right to know. Through pre-defined contract clauses and legal labeling, we safeguard consumers' access to accurate information, while protecting their property, physical and mental health, and digital rights. Through these ongoing efforts, Gamania Group is committed to creating a secure and reliable network environment, protecting users' data and privacy, and ensuring smooth business operations.

## Crime prevention

With the rapid growth of online information, fraud and game account theft have become prevalent as new societal challenges. Gamania is committed to prioritizing customer service and players' rights and actively engages in digital crime prevention to stand with consumers. For all relevant complaints received, provided that there is sufficient supporting evidence, Gamania's team proactively cooperates to help consumers cope with criminal behavior so as to prevent unlawful opportunists from endangering the platform's security.

Since 2022, Gamania has partnered with the Anti-fraud Hotline 165 by establishing an online inquiry mechanism that allows police to submit case inquiry requests in real-time, significantly boosting investigation efficiency. Additionally, recognizing the high technicality and difficulty in identifying digital game terminology, the Group has formed an independently operating "Joint Defense Team." This team dispatches dedicated personnel for 24-hour shift support, to provide real-time information and answer questions for police and investigative agencies, thus ensuring uninterrupted anti-fraud operations.

The recently enacted "Fraud Crime Hazard Prevention Act " now includes online operators within its regulatory scope, with Articles 36-38 specifically pertaining to online gaming operators. These articles mandate that online operators assist in blocking fraudulent messages, retaining records, and cooperating with inquiries. In response, our legal and operational units cooperate regarding the following matters to collectively counter illegal activities:

- Suspending services for users who are suspected of involvement in fraudulent activities upon notification from the police or competent authorities.
- Providing data requested within three days of receiving a data retrieval notice for fraud-related cases, and retaining data according to statutory deadlines.

# Responsibility for digital content

Gamania's core products and services center on digital entertainment and multimedia content. We are dedicated to providing players and consumers with innovative, high-quality digital experiences, and all online content is strictly in compliance with the relevant local regulations. In the open internet environment of a democratic society, freedom of expression may lead to the risk of exposure to inappropriate content. As a platform operator, Gamania advocates for the establishment of clear responsibility guidelines to demonstrate our commitment to and practice of sustainable business principles.

| | |
|---|---|
| Advertising ethics | **In 2023, we officially launched the "Gamania Group Advertising Ethics Policy," becoming the first in the domestic industry to establish advertising-related regulations specifically for advertisers.** By incorporating feedback from the Group's diverse digital entertainment business units, this policy aims to enhance its applicability and serve as a model for the industry. This policy not only keeps in line with the regulations, but also covers different control conditions for product categories such as adult content, controlled products, entertainment, and health. Meanwhile, violent, hateful, harassing or deceptive words to solicit or mislead consumers are prohibited; Gamania reserves the right to suspend the publication of any advertisements that are against this rule. |
| Responsible content | For the games and platforms released by the Company, **it is emphasized on the registration page that users shall abide by the Company's business regulations, management rules, and international Internet etiquette and regulations.** Any behavior that violates public order and morals is strictly prohibited. It is forbidden to upload or publish content including, but not limited to, violence, sexual innuendos, hate speech, terrorism or extremist ideologies, disinformation, online harassment, self-harm, or discriminatory generative content. In serious cases, the Company reserves the right to terminate any digital services. |
| Child protection | To **make children and youth place importance on the balanced development of body and mind**, we suggest that all digital content generated is used by natural persons aged 12 years and above. **Observing the "Protection of Children and Youths Welfare and Rights Act" and "Game Software Rating Management Regulations," we provide appropriate digital content and clear rating labels**, take necessary measures to prevent children and youth' exposure to inappropriate content, and clearly display corresponding warnings. Through the user terms and conditions of the released games and platforms, we remind users that the legal guardian's consent is required before we collect the private or sensitive personal information of a minor user or player. Furthermore, parents/legal guardians of the minor users or players are encouraged to contact our customer service upon the discovery of any abnormalities; the Company will take appropriate measures accordingly to protect the privacy of children and youth. |

# Mobile device security solutions

As digital transformation accelerates, businesses are increasingly reliant on cloud platforms, mobile devices, and remote collaboration tools. This reliance elevates information security risks and exposes companies to greater risks for information leaks and intrusion. To address these challenges, Gamania offers appGuard, a mobile device security solution that effectively helps users prevent hacker attacks and sensitive data leakage. appGuard provides four core functions: source code encryption, memory anti-debugging, integrity verification, and individual sensitive data encryption. These features effectively prevent illegal operations through cracking tools, significantly enhancing information security protection strength. As most apps do not undergo additional information security enhancements after development, they are vulnerable to being cracked and having sensitive data stolen. This solution effectively addresses this common gap to balance both performance and security. It has been successfully applied in industries with high information security demands, including the military, government, finance, and gaming.

In the future, Gamania will advance appGuard toward becoming a comprehensive mobile application information security solution. This will involve integrating source code inspection, compatibility testing, black box testing, protection mechanisms, security monitoring, and malware intelligence analysis, to comprehensively elevate the security level of the app from development to operation.

# Implementation of industry laws

To enhance our industry competitiveness, Gamania actively participates in assisting the government in formulating regulations that are fair, just, and in line with industry development needs. With the employees responsible for legal affairs serving as the members of the Cultural-Creative and Sport-Entertainment Law Committee, Taiwan Bar Association, Gamania consistently provides legislative amendment suggestions to the government through various associations and personally attends relevant institutions to present opinions and share insights. Additionally, Gamania receives visits from lawyers, judicial officer groups, and law school students is also, and shares with them the common dispute scenarios in the fast-changing digital entertainment industry, thus fostering a deeper understanding and exchange regarding the industry’s legal frameworks.

# 2.4

# PROTECTION OF CUSTOMER INTERESTS

# 2.4.1 SERVICE AND COMMUNICATION

To safeguard consumers' and customers' rights across various products and services, Gamania strictly adheres to government regulations and international standards within each business domain, and has established standardized service mechanisms and operational procedures. We leverage AI technology to enhance service efficiency, and provide 24/7 uninterrupted AI customer service support. Depending on product characteristics and customers' needs, we have established diverse service channels, including telephone hotlines, official website message boards, real-time online chat, and AI Chatbots. We are committed to creating a real-time and convenient customer service experience, to further strengthen trust and connection between enterprises and their customers.

## Professional customer service system

Gamania CRM, our customer service expert within the Group, integrates diverse service channels through its AI customer service system and human-machine collaboration, to precisely deliver customer service solutions and integrate customer relationship management services. This effectively boosts customer loyalty to the brand. In 2024, our overall customer service satisfaction reached 95%, and nearly 80% of corporate clients renewed contracts with the Group. These efforts to enhance customer brand favorability and service experience are attributed to the following measures, which have steadily strengthened trust in the Gamania brand.

| Leveraging AI technology and data analytics Enhancing project collaboration with corporate clients | Establishing diverse feedback mechanisms Implementing quality monitoring and regulatory compliance | Executing innovative strategies to build brand trust Effectively enhancing user retention and engagement |
|---|---|---|
| We continuously strengthen the application of AI customer service technology by utilizing semantic understanding models and conversation history data analysis to support project collaboration with corporate clients.<br>✦ Our AI system instantly identifies corporate clients' needs and automatically routes them to specialized teams, thus shortening response times and improving case handling efficiency.<br>✦ We have implemented customer journey analysis and service evaluation dashboards, to help clients monitor customer service performance and user feedback, thereby increasing project collaboration retention and decision-making support. | To ensure service quality and regulatory compliance, we continually enhance diverse feedback channels:<br>✦ We conduct online satisfaction surveys, regular interviews, post-customer service feedback tracking, third-party spot checks, and institutional clients' operational performance reporting mechanisms. All feedback is subject to root cause analysis, categorized, and archived, then incorporated into quarterly quality improvement plans to ensure timely issue tracking and closure.<br>✦ Our customer service operational processes is fully subject to service guidelines set by competent authorities. | We actively promote a customer service strategy centered on "human-machine collaboration and experience orientation":<br>✦ We introduce an "AI + human collaboration model" to achieve both rapid inquiry and people-centered responses.<br>✦ We establish dedicated service contact points for institutional clients and regular operational reporting mechanisms to improve communication efficiency and trust.<br>✦ We implement tiered customer management and VIP care processes.<br>✦ We integrate social media customer service and real-time interaction platforms to expand user touchpoints and improve response speed. |

## Customer Complaint Mechanism

Gamania has established a comprehensive multi-channel service system, including customer service hotlines, online customer service, email, and message boards. When a customer raises an objection or complaint, frontline personnel immediately record and submit it to the relevant department for investigation and handling. In principle, we initiate the response process within one working day and provide a reply and explanation within three to five working days, depending on the complexity of the individual case. All cases are recorded and incorporated into our quarterly quality monitoring and improvement mechanism. If customers remain unsatisfied with the resolution, they can also file a formal complaint through competent authorities or third-party organizations. The Company has a dedicated contact point to coordinate handling and complete replies and explanations within 15 days, to ensure procedural efficiency and compliant responses.

In 2024, the Company maintained a 100% on-time resolution rate within 15 days for complaint cases filed with competent authorities. Furthermore, thanks to the implementation of AI customer service, the overall number of complaints decreased by approximately 21% year-on-year, with a notable reduction in repetitive and unnecessary complaints. This indicates a significant improvement in our frontline service identification and response accuracy. And further reduces complaints arising from communication gaps and improves overall service consistency and customer trust.

# 2.4.2 PERSONAL DATA AND PRIVACY PROTECTION



Gamania employs a multi-layered defense mechanism for information security management. All network services are equipped with firewalls, network identity verification, and threat monitoring and analysis mechanisms, to enable timely detection and blocking of malicious network behavior and ensure service stability and user information security. We also conduct regular system vulnerability scans and patching and continuously strengthen our response capabilities through simulated hacker attacks and information security drills. Simultaneously, data backup operations are set up according to different service types to mitigate risks arising from unforeseen incidents. To ensure data access security, only authorized personnel are permitted to access relevant data. For detailed information, please refer to Section 2.3 Information Security.

Gamania prioritizes the protection of personal data and has a clear "Personal Data Protection Policy". Its scope covers all employees of the Group's subsidiaries and their suppliers, with the Group-level Personal Data Management Committee, responsible for overall coordination and management. All units within the Group that handle personal data (including all employees, contractors, and personal data managed by collaborating partners) must plan, execute, and implement personal data protection operations in accordance with regulations, while regularly reporting progress and implementation status to the committee. Furthermore, in response to the "Personal Data File Security Maintenance Management Regulations for Digital Economy-Related Industries" promulgated by the Ministry of Digital Affairs, the Company completed the amendments to its "Personal Data Protection Policy" and "Personal Data File Security Maintenance Plan" on January 12, 2024, setting higher standards for personal data protection.

## Personal Data Protection Policy

Gamania’s personal data collection is subject to nine principles. From the moment of collection, users are proactively informed of the privacy protection policy and terms of use. The Company adheres to the principle of not collecting unnecessary personal data and fully protects users' right to choose and informs them whether to accept behavioral tracking, personalized marketing, and secondary use of their data. In 2024, 100% of personal data was used for secondary purposes, primarily for subsequent online and offline events. Users can actively request to stop this use or make adjustments according to the platform's privacy policy. (In accordance with regulations, data obtained from operational activities will be stored for over five years, and any public data will be de-identified.) All data transmitted over the internet is encrypted to prevent illegal interception by third parties. Confidentiality clauses are included in collaboration agreements with consumers and suppliers to strictly prohibit the unauthorized provision, sale, exchange, or rental of data to other groups, individuals, private institutions, or for other uses. Gamania maintains a "zero tolerance" policy for information security and personal data protection. Any violations are subject to necessary actions based on the internal "Disciplinary Regulations". In 2024, there were no incidents of violation of customer privacy at the Company, and there were no legal penalties related to user privacy imposed on the Company.

## Nine principles of personal data protection

### Purpose specification principle

The purpose must be clearly stated at the time of collection, the privacy policy statement must be emphasized, and the rights and interests of the parties concerned must be respected.

### Openness & notification principle

The development, use, and policies of personal data must be aligned with the consistent regulations for openness.

### Collection limitation principle

The categories of personal data and the relevant restrictions on collection must be explicitly defined.

### Use limitation principle

The use of personal data requires the consent of the parties concerned, and the processing and utilization of such personal data are subject to appropriate applications for authorization.

### Individual participation principle

The parties' rights to inquire about, browse, make copies, supplement or make corrections to, request cessation of collection/processing/utilization of, and delete their personal data shall be protected, and responses to any matters related therewith shall be made within an appropriate timeframe.

### Data content principle

Data is used on the parties' discretion or when the time limit for collection has expired, and the accuracy, integrity, and timeliness of data are ensured.

### Security safeguards principle

Reasonable and appropriate security protection measures must be adopted for data to avoid the risks of data loss, misuse, damage, alteration or disclosure, and to meet statutory reporting requirements.

### Accountability principle

The management units, supervisory personnel, and users of personal data shall be clarified to properly manage and define the respective authority and responsibilities. In addition employees of the Group shall be specifically required to fulfill the obligation and responsibility of personal data protection to prevent improper use of personal data.

### Harm prevention principle

There is a mechanism for immediate notification and handling when the possibility and severity of personal data being threatened or damaged in the collection, utilization or transmission process are high, in order to reduce and prevent the risks of damages and penalties arising from improper personal data protection.

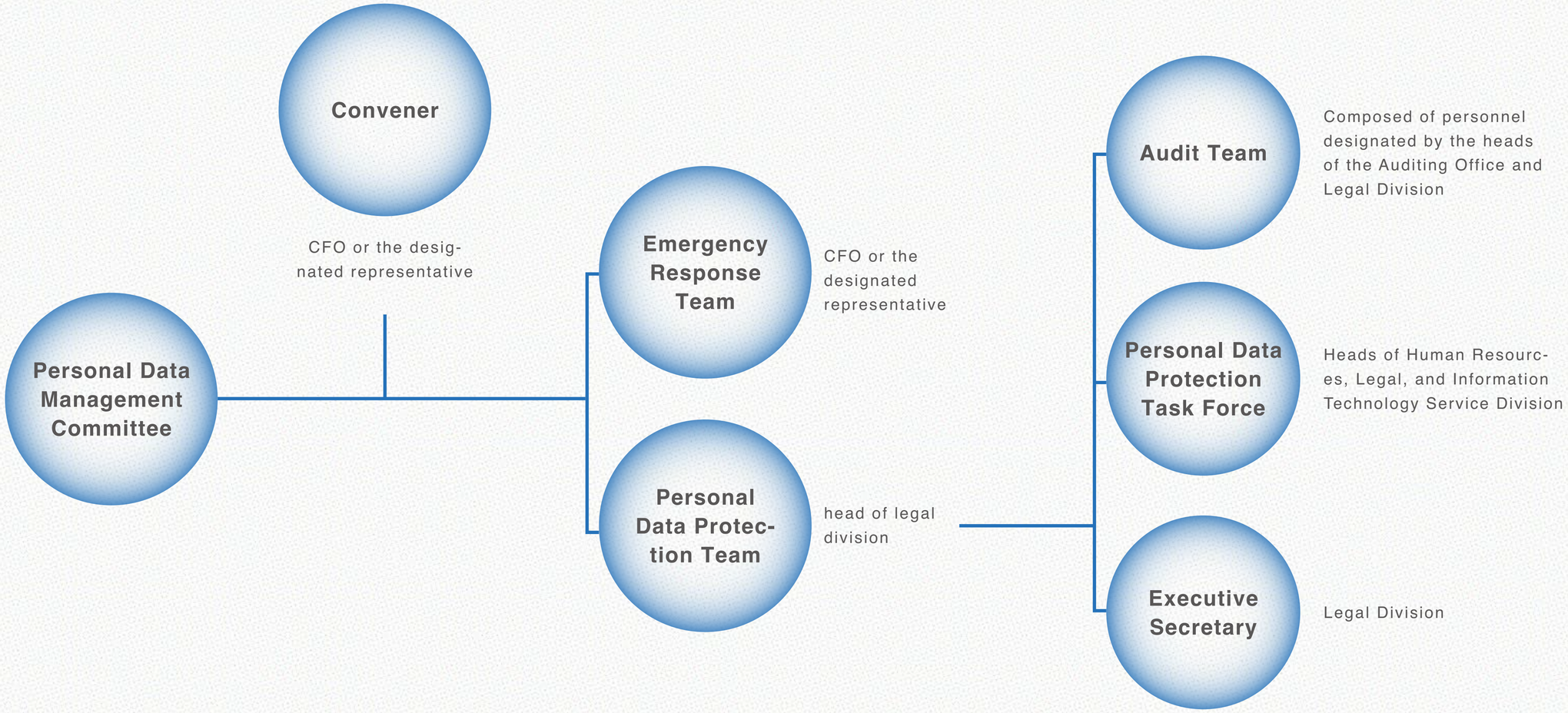
# Personal Data Management Committee

The Personal Data Management Committee is chaired by the CFO and includes an Emergency Response Team and a Personal Data Protection Team. This committee collaborates with the Legal Division to jointly prevent external intrusion risks and ensure the accuracy and completeness of personal data files. The Personal Data Protection Team includes an Audit Team, composed of members from the Auditing Office and Legal Division. This team is responsible for planning regular inspection operations and implementing security maintenance measures. It also carries out immediate improvement actions to ensure the effective implementation of the system.

## Tasks of the Personal Data Management Committee

1. Proposal on the personal data protection policy.
2. Planning of the personal data management system, and discussion and implementation of related matters.
3. Assessment, management, and review of personal data privacy risks.
4. Planning of the awareness-raising campaigns and education and training in relation to personal data protection for dedicated personnel and employees of all units at all levels within the Group.
5. Review, discussion, and evaluation of the legitimacy and adequacy of the personal data management system.
6. Planning and implementation of other personal data protection and management matters.

## Organizational Structure of Personal Data Management Committee



# 2.4.3 CUSTOMER SATISFACTION



## Customer Satisfaction Survey

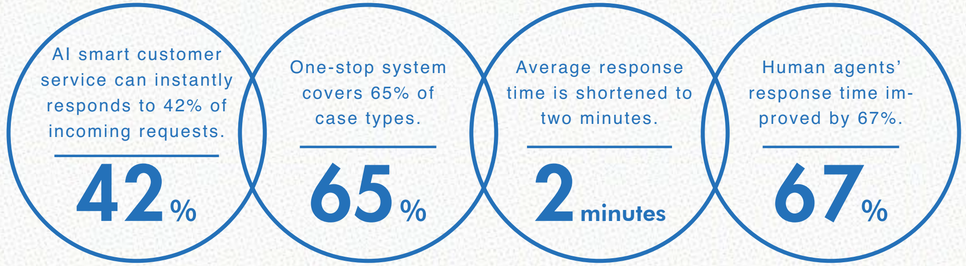
Gamania places great importance on protecting consumers' rights and maintains close communication and interaction with consumers to safeguard their rights. Gamania's customer service primarily focuses on its online and mobile games. In 2024, the service volume exceeded 230,000 cases. Up to 93.7% of these cases were resolved on the first response, and the service quality inspection accuracy rate was over 99.4%. To continuously improve service quality, in 2024, the Company focused on two core indicators: "first response resolution rate" and "service accuracy rate." This involved a comprehensive strengthening of customer service operating standards and process monitoring. By implementing an automated routing system, enhancing the front-line knowledge base, and providing training on response scripts, the Company effectively improved the customer service team's ability to solve problems on the first contact. Meanwhile, we conduct regular internal quality audits and spot checks of phone calls and written responses to ensure process compliance, consistent communication tone, and accurate information delivery.

### 2024 Customer Service Highlights

| | | | |
|---|---|---|---|
| Annual service volume | 230,000 cases | Customer satisfaction | 4.79 points |
| First response resolution rate | 93.7% | Service quality inspection accuracy rate | 99.4% |

Notes: ❶ Customer satisfaction is measured on a 5-point scale.
❷ Service quality inspection accuracy rate refers to the percentage of correctly scored quality inspections conducted by a customer service center over a given period, based on a sample of total service interactions (such as inbound calls, online chats, or emails). This indicator reflects customer service personnel's correct understanding of product knowledge, process regulations, and information provision. It also serves as an indicator for evaluating training effectiveness, knowledge base maintenance, and the level of system assistance. By establishing clear evaluation standards and error definitions, implementing a standardized scorecard for record-keeping, adopting layered inspection mechanisms like risk type categorization and AI quality inspection, and combining them with education and improvement measures, we have realized a service quality inspection cycle to ensure continuous service quality enhancement.

In response to increasingly complex users' needs and high-frequency service demands, the Company has implemented data analysis and self-service modules to effectively enhance overall flexibility and operational resilience. Through big data analysis, the Company can instantly identify high-frequency issues and potential risk scenarios, to continuously optimize FAQs and chatbot language to improve the accuracy of automated responses. Additionally, we introduced a 24/7 AI-powered smart customer service system, which by the end of 2024 had achieved an instant response coverage of 42% of incoming requests, thus significantly increasing the automated handling rate. Also, we established a one-stop self-service form system with automated guidance and follow-up processes integrated, now covering 65% of case types, to effectively reduce back-and-forth communication and human workload. As a result of these measures, the average response time for major inquiries has been shortened to two minutes, and human agents' real-time response efficiency has improved by 67%. This not only reduces customers' waiting time but also reinforces Gamania's service resilience and quality.




▲ 2024 Customer Service Milestones

# Customer Satisfaction Action Plan

For major complaints or cases with potential safety risks, the Company has an internal dedicated team that promptly initiates cross-departmental communication to ensure timely investigation and resolution. In 2024, a total of 596 letters were received from government agencies, of which 99 required a coordination meeting. All cases were handled in compliance with regulations, and complete responses were provided within 15 days, with a 100% on-time response rate. **In 2024, there were no major information security, privacy leakage, or government-monitored incidents, with the Company's corporate image and social trust maintained.**

The majority of Gamania's customer complaints are related to the game "MapleStory." The top three complaint types and their handling methods are as follows:

| Main complaint type | Percentage | Handling method |
|---|---|---|
| Request to unlock a locked account | 62% | Internal review is initiated. If a cheating behavior is verified, the account remains locked. |
| Request for compensation for a stolen account | 9% | We offer a stolen item recovery service. In accordance with our standardized contract, we assist in tracing the flow of stolen in-game items. If game items are successfully recovered, they will be returned to the victim. However, if the stolen items cannot be recovered and the theft occurred because the user did not utilize the free security lock provided by the Company, we will not be held responsible for compensation. In such cases, the user should pursue legal action against the infringing party for damages. |
| Restriction on a high-risk account's top-up function | 4% | In line with the government's fraud prevention measures, the use of top-up serial numbers is temporarily suspended for some consumers, who are guided to use other methods, such as credit card payments or ATM transfers. |

## Subsequent Action Plan

The Company places high importance on every user complaint received from a government agency and views it as an important opportunity to optimize services and improve systems. An analysis of the 2024 letters from government agencies shows that most cases involve players' personal behavior, information security risks, or abnormal operations. To strengthen customer trust and prevent potential disputes, the Company continues to promote multiple institutional and technological measures, including:

- Quarterly analysis of the types and root causes of government agency letters as a basis for product development and customer service process optimization.
- The creation of a "Dispute Case Response Procedure" where a cross-functional response team—comprising members from product development, operations, legal, and customer service—is formed to quickly and properly handle various disputes.
- Continuously strengthening the accuracy of AI customer service and the knowledge base to improve the first-contact resolution rate, thus reducing the likelihood of users resorting to external complaint channels.

Through this parallel system of institutional design and technological assistance, Gamania is committed to building a more robust service trust framework to fulfill its dual promise of enhancing customer satisfaction and social responsibility.