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Analysing the Multi-sensory Elements of Immersive Experience for Art Exhibitions in Southeast Asia

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ABSTRACT

This study explores how multi-sensory elements—sight, sound, touch, taste, and smell—enhance visitor engagement and interactivity in immersive art exhibitions across Southeast Asia. As immersive technologies like Virtual Reality (VR), Mixed Reality (MR), and Augmented Reality (AR) become more common in artistic spaces, understanding the role of the senses in shaping user experience is increasingly important. Through a content analysis, this research analyses selected exhibitions to evaluate the extent and effectiveness of sensory integration. The findings reveal that VR and MR offer the highest levels of immersion, allowing participants to engage deeply with digital and hybrid environments. Extended Reality (XR) also creates strong interactive experiences, while AR is often more limited in its immersive impact due to its focus on visual overlays. Among the sensory elements, sight, sound, and touch are the most employed, contributing significantly to users' sense of presence and engagement. In contrast, taste and smell remain underutilized due to technological and logistical challenges, despite their potential to enhance emotional and memory-based connections with the artwork. The insights from this research offer valuable guidance for future developments in immersive art, suggesting that the thoughtful integration of all five senses can deepen audience engagement and create more memorable, meaningful experiences.

Keywords: Multi-sensory Elements, Immersive Experience, Art Exhibitions, Southeast Asia

1 INTRODUCTION

Modern art exhibitions are evolving beyond traditional visuals, incorporating Sound, touch, Taste, and smell to create immersive experiences. This study examines how these sensory elements enhance audience engagement in Southeast Asian exhibitions. Multi-sensory exhibitions allow visitors to engage with art through innovative and stimulating methods. For instance, sound elements can enhance the ambience of a piece, while touch interaction enables individuals to connect with the artwork physically. Additionally, smell components can evoke powerful memories or emotions that enrich the experience.

These aspects can enhance the engagement level of art exhibitions, transforming them into an all-encompassing, multi-sensory encounter. And how an immersive experience can be established in a completely digital or digitally augmented environment where users can perceive a sense of sensory presence enabled by immersive technology (Dzyuba, 2023). Hardware and software components, such as Extended Reality (XR), which includes Augmented Reality (AR), Virtual Reality (VR), and Mixed Reality (MR), are integrated to create immersive experiences. Combining the real and virtual worlds to give participants the impression that they are a part of the setting or story is an immersive experience.

1.1 Research Objective

The objective of this study was to investigate the use of various sensory elements like sight, Sound, touch, Taste and Smell that can enhance immersive experiences at art exhibitions in Southeast Asian countries (Malaysia, Indonesia, Singapore, Thailand, Vietnam, and the Philippines).

1.2 Problem Statement

Sensory elements enhance soundscapes and the mood and ambience of an exhibition; physical touch interactions are possible with touchable elements, and Taste and Smell can evoke memories and emotions. Świdrak et al., 2024 highlighted that:

"…many modern immersive technologies focus mainly on sight and sound, often ignoring touch, smell, and taste…" Researchers argue that this lack of full sensory involvement can reduce the effectiveness of experiences, especially in education, healthcare, and entertainment.

Immersive exhibits also often overlook the diverse sensory needs of their visitors, which can affect the overall experience (Doukianou et al., 2020). Although these exhibits can engage viewers through various senses, many still prioritise visuals, leaving out essential auditory and tactile elements that help make the experience more inclusive (Dogan & Kan, 2020). All senses must be considered to create a more effective and inclusive immersive experience for art exhibitions.

2 LITERATURE REVIEW

Immersive experiences have become a cornerstone of modern engagement, blending sensory elements with cutting-edge technologies to captivate audiences uniquely and meaningfully. Drawing inspiration from Aristotle's assertion of the five senses—sight, Sound, touch, Smell, and Taste—these experiences utilise sensory stimulation to elevate interactions, leaving a lasting impression on participants (Brandt et al., 2024). Art exhibitions have embraced these principles to create environments that foster deeper connections between visitors and the artwork (Doukianou et al., 2020).

Exhibits transform passive observation into active participation by integrating sensory modalities such as vibrant visuals, evocative sounds, tactile engagement, captivating aromas, and flavours. However, despite these advancements, some immersive technologies still prioritise sight and sound over other senses. This multi-sensory approach not only enhances emotional resonance but also aligns seamlessly with advancements in immersive technologies, including Virtual Reality (VR), Augmented Reality (AR), and Mixed Reality (MR) (Dogan & Kan, 2020; Dzyuba, 2023). As Świdrak et al. (2024) highlight, such technological integrations allow for more profound levels of engagement and personalisation, creating experiences tailored to individual sensory preferences and responses.

Art exhibitions exemplify the potential of immersive experiences, merging artistic expression with technological sophistication to inspire, educate, and connect. This fusion underscores the limitless possibilities of sensory engagement in enriching cultural and personal narratives and fostering deeper appreciation and understanding in an ever-evolving world.

2.2 Sensory Elements

According to the ancient Greek philosopher Aristotle (384–322 BCE) (Brandt et al., 2024), five important senses can be applied in an immersive experience such as sight, Sound, touch, Smell and Taste, which can enhance the level of engagement in an experience. Art exhibitions utilise these elements to establish a stronger bond with visitors. Sight incorporates visual art, colours, and lighting; Sound consists of music or noises to create atmosphere; touch enables interaction with artwork; Smell can introduce scents to enhance the environment; and Taste may play a role in specific exhibits. By utilising these senses simultaneously, exhibitions can become more engaging and unforgettable for visitors.

2.2.1 Sight

The sight includes perceiving light, colours, and motion. The visual components are crucial in shaping our perception and understanding of the environment. The key elements include:

2.2.1.1   Light: The brightness or dimness of an environment can change how we perceive objects.

2.2.1.2   Colour: Different colours can create emotional responses, highlight specific areas, or set the mood in a space.

2.2.1.3   Movement: The movement of objects or light can capture attention or create a sense of action or energy.

These visual components are commonly utilised in art, design, and immersive experiences to captivate the audience by appealing to their sense of vision. They influence our perception of spaces, artworks, and digital environments.

2.2.2 Sound

The auditory sense, also known as Sound, involves hearing elements such as music, sound effects, voice, and ambient noise. These audio elements contribute to the atmosphere, enhance authenticity, and facilitate a deeper engagement in locations such as art shows, movies, and digital environments. Using auditory elements can stimulate the sense of hearing, enrich the overall experience and increase interactivity. Sound plays a vital role in shaping the atmosphere, emotions, and attention, making the experience feel more alive and engaging.

2.2.3 Touch

The sense of touch enables us to experience bodily feelings through our skin. It aids in perceiving pain, texture, warmth, and pressure. The skin is the most remarkable sensory organ in the body, which

is essential to our interactions with the outside world. Touch lets us sense things like temperature, cold, roughness, and smoothness. In addition, touch is necessary to improve contact and engagement. Art exhibits, virtual worlds, and design experiences can provide viewers with a more comprehensive and immersive experience by integrating tactile components like textures, pressure, and temperature variations. The sense of touch allows visitors to engage with the artwork or environment physically, adding a layer of realism and connection those visual and auditory elements alone may not provide.

2.2.4 Smell

The sense of Smell enables us to perceive scents through the nose. It significantly impacts setting the mood and triggering recollections or feelings. Smell is often incorporated into immersive experiences to improve the environment by introducing scents that align with the visual, auditory, and tactile aspects. Specific smells such as flowers, wood, or fresh air can enhance the experience and make it feel more authentic in art exhibitions or themed environments. The sense of Smell can also affect mood and improve storytelling by evoking emotional reactions or individual recollections. When mixed with other senses, Smell enhances the sensory experience, creating a more immersive and engaging experience.

2.2.5 Taste

Taste is the ability that enables us to perceive various flavours using our taste buds. It aids in differentiating sweet, salty, sour, bitter, and umami (savoury) flavours. In some immersive experiences, the Taste enhances engagement, particularly in food-focused exhibits or experiences where guests can try flavours that enhance the theme or ambience. Activities such as culinary art or immersive dining events, including Taste, sight, Sound, and Smell, can improve the overall sensory experience. The sense of Taste can awaken memories, stir emotions, and deepen participants' connection to the surrounding environment or story being shared. Although not as often seen in traditional art shows, Taste plays a crucial role in enhancing fully immersive spaces.

2.3   Immersive Experience

An immersive experience is an artificially created fully digital or digitally enhanced setting where users can feel a sense of sensory presence facilitated through immersive technology (Dzyuba, 2023). The immersive technology capabilities allow for submerging and giving a sense of realism to an environment, interaction, or setting as if it were happening in real life. An immersive experience is a full or partial digital surrounding involving the user's sensory modalities, including visual, Sound, motion, pressure, and even smell. Immersive experiences are built upon the integration of hardware and software components, including technologies like Extended Reality (XR), which encompasses Augmented Reality (AR), Virtual Reality (VR), and Mixed Reality (MR). An immersive experience fully engages participants by blending the physical and digital worlds, making them feel part of the environment or narrative.

2.3.1 Virtual Reality (VR)

Virtual Reality (VR) aims to construct digital surroundings that envelop the user, giving them the sensation of being in an alternate location or universe. Head-mounted displays (HMDs), like controllers

or gloves, are usually necessary for VR technology and may be included for enhanced interactivity. These immersive experiences can be used for training, simulations, and gaming, among other things.

2.3.2 Augmented Reality (AR)

Augmented Reality (AR) overlays a user's perspective of the world with digital content. This technology projects digital data or images onto the real-world using cameras or smart devices. AR is frequently used in mobile apps like Pokémon GO, navigation systems, and virtual shopping environments.

2.3.3 Mixed Reality (MR)

Mixed Reality (MR) merges components from VR and AR to produce a fused encounter where digital objects interact with the physical environment. This immersive technology provides a high level of interaction by enabling users to interact with virtual and physical elements simultaneously. MR has multiple possible uses, including remote teamwork, prototyping designs, and training for medical purposes.
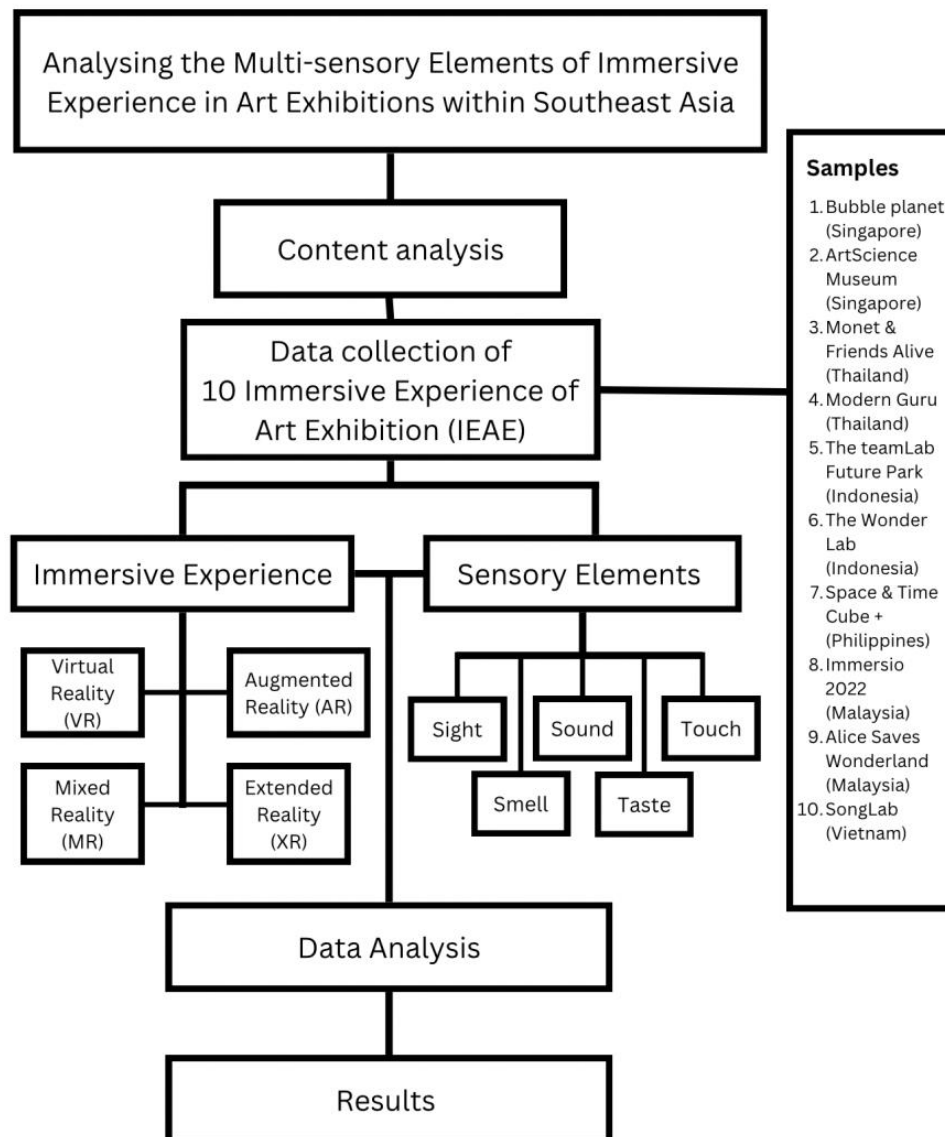
2.4 Art Exhibition

An art exhibition is more than just a display of artwork; it is a curated event designed to engage, educate, and inspire audiences. These exhibitions can vary widely in scope and purpose, ranging from intimate showcases of emerging artists to large-scale retrospectives featuring masterpieces by renowned creators. They often include diverse art forms such as paintings, sculptures, installations, digital art, textiles, performance art, and multimedia creations. The primary goal of an art exhibition is to connect audiences with art, serving as a platform for artists to share their vision, convey messages, and express emotions. At the same time, it allows viewers to interpret and interact with art, fostering appreciation and critical thinking. Exhibitions may aim to promote artistic talent, encourage cultural dialogue, provide education, or foster innovation by exploring themes like identity, history, politics, and social issues. They can be held in various venues, from traditional spaces like galleries and museums to nontraditional locations like public parks, pop-up events, and virtual platforms. Modern exhibitions often incorporate interactive and immersive elements, such as guided tours, workshops, or multimedia features, to enhance the visitor's experience. Beyond artistic value, art exhibitions also have cultural and economic significance, promoting heritage, driving tourism, and supporting artists and related industries. Art exhibitions are dynamic spaces that bridge the gap between creators and audiences, offering opportunities for creativity, reflection, and inspiration.

3 RESEARCH DESIGN

This study employed a qualitative content analysis approach to examine the multi-sensory elements of immersive art exhibitions in Southeast Asia. A sample of ten exhibitions was chosen using three criteria: (1) the exhibition must incorporate multiple sensory elements (sight, Sound, touch, Taste, and Smell); (2) relevant documentation must be accessible; and (3) the exhibition must represent one of the major Southeast Asian countries with established immersive exhibitions. Although Southeast Asia includes eleven nations, Brunei, Laos, Cambodia, Myanmar, and Timor-Leste were excluded due to limited documentation, allowing the study to focus on six countries: Malaysia, Indonesia, Singapore, Thailand, Vietnam, and the Philippines.

The research methodology varies by location. For exhibitions in Malaysia and Singapore, on-site visits were conducted so that researchers could directly observe the exhibits, record field notes, analyse sensory interactions, and engage with visitor experiences. For exhibitions in Indonesia, Thailand, Vietnam, and the Philippines, the analysis relied on secondary data sources such as social media reviews, visitor feedback, official exhibition websites, and video documentation.

Content analysis was selected because it systematically categorises and interprets qualitative data, enabling the identification of recurring patterns in sensory engagement, technology integration, and audience interaction. Data were coded into predefined categories like "visual engagement," "interactive elements," and "multi-sensory depth." To ensure reliability, two independent coders analysed the data and then compared their results; any discrepancies were discussed and resolved until a consensus was reached. This approach provides a robust and credible analysis of the diverse, immersive experiences in the region.

Figure 1 Framework of Study

4 DATA SAMPLES

Table 1 Selection of Immersive Experience of Art Exhibition from six countries

Immersive Experience Art Exhibition	Country	Producer	Justification
Bubble Planet	Singapore	Exhibition Hub & FEVER	Interactive art, bubbles, and augmented Reality create a playful experience.
The ArtSciencs Museum	Singapore	Marina baysands	Museum blending art, science, and technology with interactive exhibits.
Monet & Friends Alive	Thailand	GrandE Experience	An immersive experience brings Monet's Impressionist art to life digitally.
Modern Guru	Thailand	Eness	Art and spirituality converge through modern creativity and ancient wisdom.
The teamLab Future Park	Indonesia	teamLab	Ability to merge art, technology, and interactive experiences with digital art innovatively.
The Wonder Lab	Indonesia	Genexyz	Interactive exhibition merging science and art.
Space & Time Cube +	Philippines	-	Futuristic interactive experience manipulating space and time digitally.
Immersio 2022	Malaysia	Filamen	Interactive digital art exhibition experience.
Alice Saves Wonderland	Malaysia	Great Eastern Life Malaysia	Explore "Alice in Wonderland" through an immersive role-playing experience.
Songlab Digital Art Museum	Vietnam	Hexogon	The museum merges digital art and music for an immersive experience.

5 DATA SAMPLES

5.1 Bubble Planet

Table 1.1 Analysis of immersive experience and sensory element for Bubble Planet

Data Analysis	Immersive Experience				Sensory Elements				
	Virtual Reality (VR)	Augmented Reality (AR)	Mixed Reality (MR)	Extended Reality (XR)	Sight	Sound	Touch	Smell	Taste
Bubble Planet	/	-	-	-	/	/	/	-	-

It uses Virtual Reality (VR) as a key immersive technology, especially in its VR Theatre, where visitors can experience floating in a bubble-filled, zero-gravity environment. The exhibition also features interactive exhibits like the Balloon Getaway hot air balloon simulation and immersive rooms like the LED and Infinity Rooms. While VR is the leading technology, visitors engage multiple senses through touch, sight, and Sound.

5.2   The ArtSciencs Museum

Table 1.2 Analysis of immersive experience and sensory element for The ArtSciencs Museum

Data Analysis	Immersive Experience				Sensory Elements				
The ArtSciencs Musuem	Virtual Reality (VR)	Augmented Reality (AR)	Mixed Reality (MR)	Extended Reality (XR)	Sight	Sound	Touch	Smell	Taste
	/	-	/	-	/	/	/	/	-

Uses a variety of immersive technologies, including Virtual Reality (VR), Augmented Reality (AR), and Mixed Reality (MR). Exhibits like the VR Gallery and collaborations with artists such as Marshmallow Laser Feast offer VR experiences that transport visitors to new worlds. The museum also features multi-sensory exhibitions, such as "Future World", where digital art responds to touch and movement, and "Sensory Odyssey", which engages sight, Sound, and smell to explore ecosystems. These technologies create interactive experiences stimulating multiple senses, making the museum's exhibits engaging and immersive.

5.3   The Monet & Friends Alive

Table 1.3 Analysis of immersive experience and sensory element for The Monet & Friends Alive

Data Analysis	Immersive Experience				Sensory Elements				
The Monet & Friends Alive	Virtual Reality (VR)	Augmented Reality (AR)	Mixed Reality (MR)	Extended Reality (XR)	Sight	Sound	Touch	Smell	Taste
	-	-	-	-	/	/	/	/	/

Uses digital projection technology to bring over 3,500 works of art to life on large-scale screens, allowing visitors to immerse themselves in the vibrant world of Impressionist art. The experience is enhanced by interactive elements, where visitors can engage with recreated landscapes from the paintings. The exhibition also incorporates multi-sensory features, including a synchronised classical music soundtrack and scents that evoke the atmosphere of 19th-century Europe, providing a fully immersive, interactive journey through Monet's art.

5.4   Modern Guru

Table 1.4 Analysis of immersive experience and sensory element for Modern Guru

Data Analysis	Immersive Experience				Sensory Elements				
Modern Guru	Virtual Reality (VR)	Augmented Reality (AR)	Mixed Reality (MR)	Extended Reality (XR)	Sight	Sound	Touch	Smell	Taste
	-	-	-	-	/	/	/	-	-

Offers an immersive art experience that blends light, shadow, and advanced AI technology. Visitors embark on a journey to unlock their imagination, engaging with interactive elements that stimulate multiple senses. The exhibition features mesmerising visuals, interactive characters, and AI-driven art, creating a multi-sensory environment that encourages exploration and self-discovery. This innovative fusion of art and technology gives attendees a unique and engaging experience.

5.5   The teamLab Future Park

Table 1.5 Analysis of immersive experience and sensory element for The teamLab Future Park

Data Analysis	Immersive Experience				Sensory Elements				
The teamLab Future Park	Virtual Reality (VR)	Augmented Reality (AR)	Mixed Reality (MR)	Extended Reality (XR)	Sight	Sound	Touch	Smell	Taste
	/	/	/	/	/	/	/	-	-

An interactive digital art exhibition that combines art and technology to create an engaging, multisensory experience. Visitors can interact with installations like the Sketch Aquarium, where their drawings come to life in a virtual ecosystem, and the Light Ball Orchestra, which emits light and Sound when touched. The exhibition uses interactive digital technology rather than VR, AR, MR, or XR, focusing on engaging the senses of sight, Sound, and touch.

5.6   The Wonder Lab

Table 1.6 Analysis of immersive experience and sensory element for The Wonder Lab

Data Analysis	Immersive Experience				Sensory Elements				
The Wonder Lab	Virtual Reality (VR)	Augmented Reality (AR)	Mixed Reality (MR)	Extended Reality (XR)	Sight	Sound	Touch	Smell	Taste
	-	-	-	-	/	/	/	-	-

The exhibition in Jakarta combines advanced technologies like holograms, Metahumans™, motion capture, interactive screens, AI, and robotics to create a multi-sensory experience. Visitors engage with dynamic visuals, customised soundscapes, and tactile interactions that stimulate the senses of sight, Sound, and touch. While highly interactive, the exhibition does not feature VR, AR, MR, or XR technologies.

5.7 Space & Time Cube+

Table 1.7 Analysis of immersive experience and sensory element for Space & Time Cube+

Data Analysis	Immersive Experience				Sensory Elements				
Space & Time Cube +	Virtual Reality (VR)	Augmented Reality (AR)	Mixed Reality (MR)	Extended Reality (XR)	Sight	Sound	Touch	Smell	Taste
	-	-	-	-	/	/	/	-	-

An immersive art experience that seamlessly blends physical installations with advanced technology. Visitors can explore over 20 themed attractions, including LED tunnels, holographic exhibits, and interactive games, engaging their senses of sight, Sound, and touch. The museum utilises state-of-theart projection technology to transform walls and floors into dynamic canvases, creating a fully immersive environment. While the exhibition emphasises interactive digital art and AI

5.8 Immersio 2022

Table 1.8 *Analysis of immersive experience and sensory element for Immersio 2022*

Data Analysis	Immersive Experience				Sensory Elements				
Immersio 2022	Virtual Reality (VR)	Augmented Reality (AR)	Mixed Reality (MR)	Extended Reality (XR)	Sight	Sound	Touch	Smell	Taste
	/	/	/	/	/	/	/	-	-

Showcased a variety of immersive technologies designed to engage multiple senses. The festival featured projection mapping, transforming physical surfaces into dynamic visual experiences. Interactive digital art installations allow visitors to influence the artwork through motion and touch, while audiovisual performances integrate Sound and visuals to create a cohesive sensory experience. Motion and touch sensors enabled further interaction, allowing guests to alter the environment based on their actions.

5.9 Alice Saves Wonderland

Table 1.9 Analysis of immersive experience and sensory element for Alice Saves Wonderland

Data Analysis	Immersive Experience				Sensory Elements				
Alice Saves Wonderland	Virtual Reality (VR)	Augmented Reality (AR)	Mixed Reality (MR)	Extended Reality (XR)	Sight	Sound	Touch	Smell	Taste
	-	-	-	-	/	/	/	-	/

An interactive exhibition in Kuala Lumpur that brings Lewis Carroll's classic tale to life through vibrant digital art installations and interactive storytelling. Visitors embark on a quest alongside Alice to restore balance to Wonderland, exploring immersive environments like the Rabbit Hole and Enchanted Forest. While the exhibition does not explicitly use technologies like AR, VR, MR, or XR, it incorporates multi-sensory elements, including visual effects, thematic soundscapes, and tactile activities, to create a thoroughly engaging experience.

5.10 Songlab Digital Art Museum

Table 1.10 Analysis of immersive experience and sensory element for Songlab Digital Art Museum

Data Analysis	Immersive Experience				Sensory Elements				
	Virtual Reality (VR)	Augmented Reality (AR)	Mixed Reality (MR)	Extended Reality (XR)	Sight	Sound	Touch	Smell	Taste
Songlab Digital Art Museum	-	-	-	-	/	/	/	-	-

Vietnam is the country's first large-scale immersive digital art museum, featuring five rooms with eight interactive art installations. It uses advanced technologies like 3D projection mapping to create stunning visual experiences, though specific use of AR, VR, MR, or XR is not mentioned. Visitors can engage their senses through vibrant projections, immersive soundscapes, and interactive elements, offering a unique blend of art, technology, and entertainment.

6 FINDING
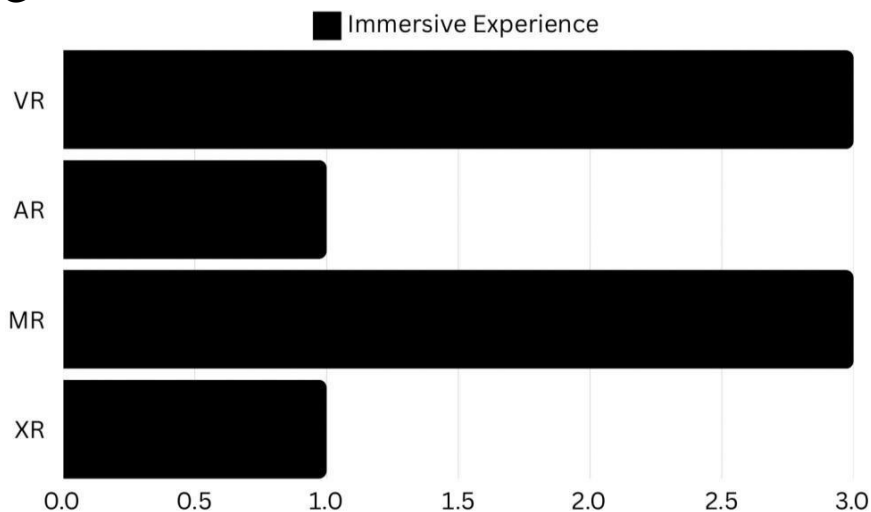
Figure 2.0 Evaluation of Immersive Experience of Art Exhibition (IEAE) out of ten art exhibitions
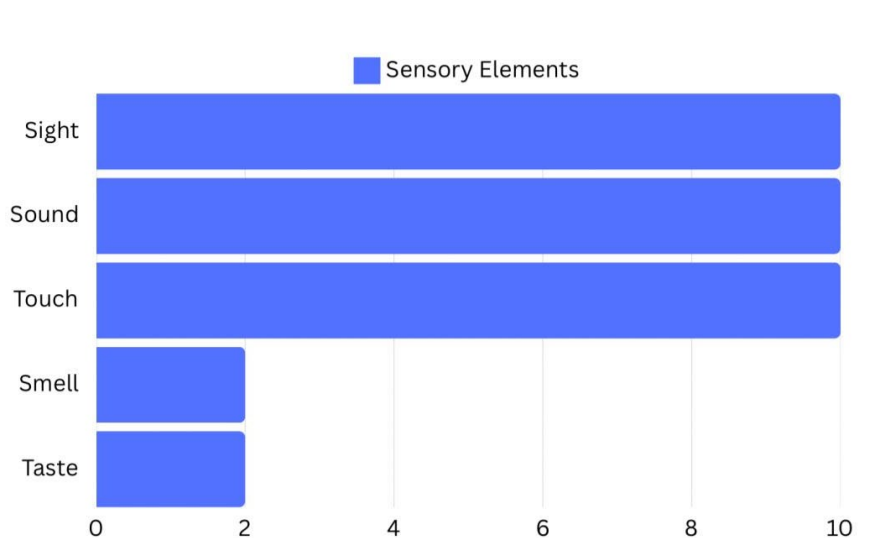
Figure 2.1 Evolution of sensory elements (sight, Sound, touch, Smell, and Taste)

6.1 Discussion

VR and MR show the highest levels of immersion, followed by XR, while AR has the lowest. In Figure 2.1, sensory elements are evaluated, with sight, Sound, and touch being the most prominent contributors to immersive experiences, reaching maximum levels. Smell and Taste contribute minimally. This suggests that current immersive technologies rely primarily on visual, auditory, and tactile stimuli to create engagement, with less emphasis on olfactory and gustatory elements.

This shows that current immersive technologies rely primarily on visual, auditory, and tactile elements to engage users. Features like clear visuals, spatial Sound, and touch-based feedback are highly developed, as they are the easiest to use for creating realistic experiences. On the other hand, using Smell and Taste is still limited because of technical difficulties and the subjective nature of these senses.

Focusing on sight, Sound, and touch helps make immersive experiences effective, but adding Smell and Taste in the future could make these experiences even more realistic and engaging. This highlights an important opportunity for further improvement in immersive technologies.

While the findings suggest that sight, Sound, and touch dominate immersive experiences, alternative studies argue that underutilised senses such as Smell and Taste could significantly enhance immersion (Świdrak et al., 2024). However, the technical and logistical challenges of integrating olfactory and gustatory elements remain barriers to widespread adoption. Furthermore, some scholars argue that overreliance on digital augmentation may reduce the authenticity of art experiences (Pursey & Lomas, 2018), suggesting that a balance between digital and physical engagement is necessary for meaningful immersion.

Additionally, while VR and MR show the highest levels of immersion in this study, other research suggests that AR, when combined with haptic feedback, could provide equally compelling experiences without the need for full immersion (Vi et al., 2017). Future research should explore how these alternative perspectives can be integrated into immersive exhibition design.

7 CONCLUSIONS

Findings suggested that immersive experiences in different exhibitions significantly depend on stimulating various senses, mainly sight, Sound, and touch, as illustrated in the chart. VR is becoming a prominent technology for immersive experiences, showcased in locations such as Bubble Planet, the ArtScience Museum, and Monet & Friends Alive, emphasising visual and auditory stimulation and interactive components. Nonetheless, other exhibitions, such as The Wonder Lab and teamLab Future Park, emphasise groundbreaking digital technologies and physical interaction without relying on VR, AR, MR, or XR. Smell and Taste in immersive art exhibitions are still vastly underused, with minimal implementation in exhibitions like Monet & Friends Alive and Sensory Odyssey. In general, immersive experiences are characterised by visual, auditory, and tactile interactions, utilising a combination of advanced technologies and interactive designs to develop profoundly engaging environments. This highlights opportunities for innovation in exhibition design, particularly for creators looking to offer more comprehensive sensory immersion. These findings benefit exhibition designers, cultural institutions, technology developers, artists, and event planners by providing a roadmap to enhance audience engagement through innovative sensory and technological integration.

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AUTHOR CONTRIBUTIONS

All authors played equal contributions towards the production of this paper.

CONFLICT OF INTEREST

There is no conflict of interest.

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