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## Corporate metaverse-exploring the impact of virtual reality on organizational culture and employee engagement

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### Abstract

This study investigates the impact of Virtual Reality (VR) on organizational culture and employee engagement within the context of a Corporate Metaverse. The studies explore how VR technology influences communication, collaboration, and socialization among employees, and its effects on organizational culture, employee satisfaction, and productivity.

The Corporate Metaverse is an emerging concept that refers to the integration of virtual reality (VR) technologies into organizational settings to create immersive and interactive virtual work environments. Through a mixed-methods approach, combining surveys, interviews, and case studies, this research investigates the effects of VR on organizational culture, including changes in leadership, teamwork, and innovation. Additionally, the study examines the impact of VR on employee engagement, including factors such as motivation, satisfaction, and retention.

The study has been done through the analysis of existing studies on the similar topic and three case studies has also been used to analyse the impact of virtual reality programmes on the set objectives. The findings of this study reveal that the Corporate Metaverse has the potential to transform organizational culture by enhancing collaboration, improving communication, and increasing employee engagement. The results also highlight the importance of leadership in employee training, and clear communication in ensuring a successful implementation of VR technologies in the workplace.

This research contributes to the existing body of knowledge by providing insights into the application of VR technologies in organizational settings, highlighting the benefits and challenges of implementing the Corporate Metaverse. The study's findings have significant implications for organizations seeking to leverage VR to enhance employee engagement, improve organizational culture, and drive business success.

**Keywords:** Metaverse, virtual reality, augmented reality, communication, collaboration

### 1. Introduction

The term "Metaverse" - a synthesis of the prefix Meta ("beyond") and universe was first introduced in Snow Crash (1992), a science-fiction novel by American writer Neal Stephenson. He described a virtual 3D world where avatars, that is, digital representations of real people, lived. The idea of a metaverse has been the subject of much popular discussion in recent months but it remains somewhat nebulous. In broad terms, it is the notion of a digital representation of human interaction that includes aspects of social media, networking and online gaming, often supported through augmented reality (AR) and virtual reality (VR), through the application of crypto currencies and digital assets to allow participants to interact virtually and natively within this environment. Matthew Ball, a well published with a strong literary presence on the topic, has suggested that theme averse can bring a "fourth wave" to computing, following those linked to mainframe computers, personal computers and mobile devices. The idea of a metaverse relies on many elements working together seamlessly if they are to offer a virtual reality experience that resembles the physical world. For example, high-speed connectivity to enable digital worlds to feel immersive and be accessible via free/paid applications or platforms on a range of device types, powerful computers, virtual and augmented reality headsets (to superimpose elements of the digital world onto the participants' real world), microphones and motion-sensing controllers (to facilitate interaction) and technologies like haptic gloves (to allow users "feel" virtual items).

Metaverse can be best described as persistent, connected virtual realities where people work, play, and socialize: anytime, anywhere, and from any device. It is the fusion of the physical, augmented, and immersive virtual environment for interactive experiences with each other in real-time scenarios. It's a revolutionary mode of technological expression with endless, untapped potential that holds massive opportunities in the marketplace. This immersive virtual world that Metaverse aims to bring to us will not just be limited to user engagement but can be envisaged an outgrowth of the real world where organizations and people come together to invest, build, and trade products and services. It is the next-generation internet that will transport us to an immersive and hyper-realistic digital world.

### 1.1 Corporate Metaverse

The Corporate Metaverse refers to the integration of Virtual Reality (VR), Augmented Reality (AR), and other immersive technologies into corporate environments to create interactive, immersive, and interconnected virtual spaces for employees, customers, and partners. This shared virtual environment enables new forms of collaboration, communication, and innovation, revolutionizing the way organizations operate and interact. The Corporate Metaverse is a shared, immersive and interactive virtual environment that integrates virtual reality (VR), augmented reality (AR), and other technologies to transform the way organizations operate, collaborate, and interact. It's a virtual world where employees, customers, and partners can connect, communicate, and engage in new and innovative ways. The corporate metaverse is the future of collaboration, allowing organizations to bring remote teams together for live, interactive meetings in a virtual space. Imagine being able to bring your entire team together from any location across the globe and possess the capacity to collaborate on projects. Whether it's brainstorming ideas, creating prototypes, or collaborating on presentations, the corporate metaverse allows for seamless collaboration. The corporate metaverse presents a multitude of benefits compared to conventional conference calls and video meetings. You can interact with co-workers in real-time, share files, and even give presentations in an immersive environment. You also have option to tailor your virtual workplace to match the look and feel of your company's physical workspace. The corporate metaverse could potentially increase productivity, efficiency, and innovation within companies meanwhile, creating new avenues to connect with customers and partners. It could also foster the development of fresh startup and revenue streams, such as virtual product sales and virtual event hosting. The corporate metaverse is a revolutionary concept that has the ability to fundamentally change the way businesses operate, interact, and innovate. By leveraging immersive technologies like virtual and augmented reality, artificial intelligence, and blockchain, companies can create immersive, interactive, and shared virtual environments that enhance various aspects of their operations.

### 1.2 Some potential applications of the corporate metaverse include

- **Virtual meetings and remote collaboration:** Teams can connect and collaborate in virtual spaces, reducing the need for travel and increasing productivity.

- **Virtual events and conferences:** Companies can host virtual events, conferences, and trade shows, expanding their reach and engagement.
- **Training and employee on-boarding:** VR can intensify training and on-boarding, improving knowledge retention and employee engagement.
- **Product design and prototyping:** Virtual environments can facilitate collaborative design and prototyping, accelerating product development.
- **User adoption and marketing:** Companies allows for interactive brand exploration, showrooms, and virtual product demonstrations to engage customers.
- **Virtual offices and co-working spaces:** Remote teams can connect and collaborate in virtual offices, fostering collective spirit and culture.
- **Supply chain management:** Virtual environments can enhance supply chain visibility, collaboration, and optimization.
- **Data visualization and analytics:** Interactive virtual environments can facilitate data exploration and insights.

### 1.3 Benefits of the corporate metaverse

- Enhanced collaboration and productivity.
- Improved employee engagement and experience.
- Increased innovation and creativity.
- Better customer engagement and satisfaction.
- Cost savings and reduced carbon footprint.
- Competitive advantage in attracting and retaining talent.

### 1.4 The Corporate Metaverse has far-reaching implications for various industries, including

- Remote work and virtual teams.
- Education and training.
- Marketing and customer experience.
- Product design and innovation.
- Healthcare and therapy.

### 1.5 The growing importance of the corporate metaverse can be attributed to several factors

- **Remote work:** the transition to virtual workspace has highlighted the demand for immersive and interactive virtual environments.
- **Digital transformation:** Organizations are leveraging technological solutions to stay agile.
- **Employee experience:** Companies are focusing on enhancing worker enthusiasm and experience.
- **Innovation:** The Metaverse enables new forms of innovation, ideation, and prototyping.
- **Customer expectations:** Customers expect immersive and interactive experiences.
- **Cost savings:** The Metaverse can minimize travel expenses, training, and real estate.
- **Sustainability:** Reduced carbon footprint from reduced travel and physical infrastructure.
- **Talent attraction and retention:** Organizations can secure and preserve key personnel with innovative work environments.
- **Data analysis:** The digital realm (Metaverse) offers novel data collection possibilities and analysis.
- **Competitive advantage:** Early adopters can gain a competitive edge in their industries.

## 1.6 Overview of VR technology and its applications in business

Virtual Reality (VR) is a computer-generated simulation of a three-dimensional environment that can be experienced and interacted with in a seemingly real or physical way. This immersive technology uses a combination of hardware, software, and sensory tracking to create an interactive and engaging experience. The components of VR include hardware such as head-mounted displays (HMDs), sensors, controllers, and computers or gaming consoles, as well as software comprising operating systems, applications, and content creation tools. Additionally, sensors and tracking devices are utilized to track user's head, hand, and body movements, allowing for precise control and navigation within the virtual environment.

In this context several categories of VR, each catering to different needs and applications. PC-based VR offers high-end experiences using powerful computers, while console-based VR utilizes gaming consoles like PlayStation. Standalone VR headsets, in contrast, function autonomously without the need for a computer or console. Mobile VR provides affordable experiences on Smartphone's using mobile VR headsets, and Augmented Reality (AR) and Mixed Reality (MR) overlay virtual content onto real-world. Key features of VR include immersive experience, interactivity, real-time rendering, 3D spatial audio, motion tracking, haptic feedback, and social interactions, which collectively provide a realistic and engaging experience with applications in leisure, pedagogy, wellness, architecture, military, and entertainment.

The advantages of VR are numerous, with potential applications in therapy, treatment, and training. For instance, VR exposure therapy has shown promise in treating anxiety disorders and PTSD. Additionally, VR can enhance education and training by providing interactive, hands-on experiences that simulate real-world scenarios. The gaming sector has experienced rapid expansion with the emergence of VR technology, offering immersive experiences that blur the lines between reality and fantasy. As VR computing systems advance, we can anticipate even more ground-breaking innovations and experiences to emerge.

**1.6.1 Technologies Used:** Computer Vision, Machine Learning, 3D Graphics, Audio Processing.

**1.6.2 Advantages:** Enhanced engagement and interaction, improved learning and retention, increased empathy and understanding, Cost-effective training and simulation, new avenues for creativity and innovation.

**1.6.3 Limitations:** Cost and accessibility, Technical requirements and compatibility, User comfort and fatigue, Limited content availability, Social isolation concerns.

## 1.7 Virtual Reality (VR) technology has numerous applications in business, including

- **Training and Development:** Simulation-based training for employees, reducing costs and improving knowledge retention. E.g. Flight simulation for pilots, medical simulation for surgeons.
- **Customer Experience:** Immersive product demonstrations, virtual showrooms, and enhanced

customer engagement. E.g. Virtual product trials, virtual real estate tours.

- **Design and Prototyping:** Interactive 3D modeling, virtual product prototyping, and improved collaboration. E.g. Architects using VR to design buildings, product designers testing prototypes.
- **Marketing and Advertising:** Immersive brand experiences, virtual events, and increased brand awareness. E.g. Virtual product launches, branded VR experiences.
- **Remote Collaboration:** Virtual meetings, enhanced communication, and increased productivity. E.g. Virtual team meetings, remote training sessions.
- **Data Visualization:** Interactive and immersive data exploration, enhancing insights and decision-making, e.g. visualizing customer data, analyzing market trends.
- **Healthcare:** Medical training, patient education, and therapy. E.g. Surgical training simulations, patient rehabilitation programs.
- **Real Estate and Architecture:** Virtual property tours, interactive architectural visualizations, and enhanced customer experience. E.g. Virtual property showings, architectural design reviews.
- **Education and Research:** Immersive learning experiences, enhanced student engagement, and new research avenues. E.g. Virtual labs, interactive educational simulations.
- **Entertainment and Events:** Virtual concerts, sports, and events, offering new revenue streams. E.g. Virtual music festivals, virtual sports events.

## 2. Literature Review

Understanding organizational culture and employee engagement theories can help organizations create a culture that prioritize employee ambition, commitment, and overall well-being. By recognizing the interconnection between these concepts, organizations can cultivate a positive culture that drives engagement and, ultimately, success. Organizational culture and two intertwined aspects of employee engagement have drawn substantial focus in the realm of organizational studies.

### 2.1 Organizational Culture

Organizational culture refers to the shared values, beliefs, norms, and practices that define an organization's identity and guide its members' behaviour. It encompasses the unwritten rules, customs, and traditions that shape employee interactions, decision-making processes, and overall work environment.

#### 2.1.1 Theories

- **Edgar Schein's Organizational Culture Model:** Schein's framework proposes that organizational culture comprises fundamental three layers: artifacts (visible symbols and practices), espoused values (stated values and beliefs), and underlying assumptions (deeply ingrained, unconscious beliefs).
- **Deal and Kennedy's Cultural Framework:** The approach recognizes four ethnic types: work-hard, play-hard; tough-guy, macho; bet-your-company; and process-oriented.
- **Harrison and Stokes' Organizational Ideology:** The theoretical framework posits that organizational culture



is shaped by a set of core ideologies, including beliefs about people, work, and authority.

## 2.2 Employee Engagement

Employee engagement refers to the emotional, cognitive, and behavioural state of being fully involved and committed to one's work. Engaged employees are motivated, dedicated, and invested in their organization's success.

### 2.2.1 Theories

- **Maslow's Hierarchy of Needs:** Maslow's theory posits that employees' needs must be fulfilled in a hierarchical order (basic, security, social, esteem, self-actualization) to achieve engagement.
- **Self-Determination Theory:** The theory states that employees' intrinsic motivation and engagement are fostered when their autonomy, competence, and relatedness needs are met.
- **Job Demands-Resources Model:** The paradigm infers that employee engagement results from a balance amid job exigencies (e.g., workload) and work amenities (e.g., support, autonomy).

### 2.2.3 Interconnection

Organizational culture plays a crucial role in shaping employee engagement, with a positive culture leading increased engagement:

- Aligning values and beliefs.
- Encouraging a sense of camaraderie and shared identity.
- Encouraging autonomy and empowerment.
- Supporting employee growth and development.

**Conversely, engaged employees add value to a positive organizational culture by:**

- Embodying organizational values.
- Participating in cultural rituals and practices.
- Fostering a sense of camaraderie and teamwork.
- Driving innovation and continuous improvement.

### 2.2.4 Virtual Reality (VR) can significantly impact on communication, collaboration, and socialization in various ways

**Communication:** Communication is the sending and receiving of information and can be one on one or between groups of people, and can be face-to-face or through a common system of symbols, signs, or behaviour.

- VR enhances remote communication by providing immersive, face-to-face interactions.
- VR improves nonverbal cues, such as body language and facial expressions, in virtual interactions.
- VR increases empathy and understanding in virtual communication.

Virtual Reality (VR) is redefining the manner in which we communicate, offering immersive and participatory experiences that enhance remote interactions. Below are few approaches VR is impacting communication:

- **Enhanced remote communication:** VR enables face-to-face interactions, reducing feelings of distance and isolation.

- **Improved nonverbal cues:** VR facilitates precise comprehension of nonverbal signals like body language and facial expressions.
- **Increased empathy:** VR experiences foster deeper understanding and empathy through shared perspectives.
- **Interactive presentations:** VR enables engaging and interactive presentations, enhancing audience engagement.
- **Virtual meetings:** VR facilitates immersive virtual meetings, reducing the need for travel.
- **Language learning:** VR immerses language learners in conversational environments, enhancing language skills.
- **Accessibility:** VR enables people with disabilities to communicate more effectively.
- **Emotional intelligence:** VR experiences help develop emotional intelligence by simulating social interactions.
- **Virtual events:** VR hosts virtual events, conferences, and trade shows, expanding reach and engagement.
- **Cost-effective:** VR reduces communication costs by minimizing travel and infrastructure needs.

**However, VR communication also presents challenges like:**

Technical issues<sup>2</sup>, Accessibility barriers<sup>3</sup>, Social isolation<sup>4</sup>. Blurred boundaries between work and personal life  
To maximize VR's communication benefits, it's crucial to resolving these issues to ensure effortless integration into present communication channels.

**2.2.5 Collaboration:** Collaboration in Virtual Reality (VR) refers to the ability of multiple users to interact and work together in a shared virtual environment.

Enhanced Collaboration:

- **Enhanced teamwork:** VR facilitates collaborative workspaces, promoting real-time interaction and feedback.
- **Improved problem-solving:** VR enables interactive, 3D visualizations, enhancing problem-solving and decision-making.
- **Increased engagement:** VR experiences can boost participation and engagement in collaborative activities.

VR enhances collaborative work by providing immersive, interactive environments (Gao, *et al.*, 2019) <sup>[54]</sup>. VR improves communication, coordination, and cooperation among team members (Lukosch *et al.*, 2015) <sup>[55]</sup>. VR increases engagement and participation in collaborative activities (Makransky *et al.*, 2019) <sup>[56]</sup>.

### Improved Problem-Solving

- VR enhances problem-solving and decision-making in virtual teams (Lukosch *et al.*, 2015) <sup>[55]</sup>.
- VR facilitates the sharing and visualization of complex information, improving collaborative problem-solving (Gao, *et al.*, 2019) <sup>[54]</sup>.

### Increased Trust and Cohesion

VR increases trust and cohesion among team members by providing a shared, immersive experience. VR enhances

team cohesion and collaboration by reducing social barriers and increasing empathy (Kang *et al.*, 2018) <sup>[57]</sup>.

### 2.2.6 Socialization

Socialization in Virtual Reality (VR) refers to the process of interacting and connecting with others in a virtual environment. VR enhances social connections and relationships in virtual environments (Kang *et al.*, 2018) <sup>[57]</sup>. VR improves social skills, such as communication and empathy, in virtual interactions. VR increases sense of community and belonging in virtual social environments (Hamari *et al.*, 2018) <sup>[58]</sup>.

### 2.2.7 Organizational Culture:

VR can shape organizational culture by providing a platform for immersive, interactive experiences. VR can enhance organizational culture by increasing collaboration, communication, and employee engagement. VR can support organizational change and development by providing a safe space for experimentation and learning.

### 2.2.8 Employee Engagement

- VR increases employee engagement by providing immersive, interactive experiences (Makransky *et al.*, 2019) <sup>[56]</sup>.
- VR enhances employee motivation and satisfaction by generating a sense of engagement and immersion.
- VR can support employee well-being by reducing stress and improving work-life balance (Gao, *et al.*, 2019) <sup>[54]</sup>.

## 2.3 Previous studies on VR in business settings

### Training and Development

- Studies have shown that VR training programs can improve knowledge retention, skill transfer, and overall performance compared to traditional training methods (Zhang *et al.*, 2020) <sup>[69]</sup>.
- VR has been effective in training employees in areas such as leadership development, customer service, and technical skills.

### Collaboration and Communication

- Research has found that VR can enhance collaboration and communication among team members by providing an immersive and interactive environment (Gao, *et al.*, 2019) <sup>[54]</sup>.
- VR has been used to facilitate remote meetings, virtual team-building activities, and cross-cultural communication (Schmidt *et al.*, 2018; Wang *et al.*, 2020) <sup>[68, 69]</sup>.

### Employee Engagement and Experience

- Studies have shown that VR can increase employee engagement, motivation, and job satisfaction by providing novel and interactive experiences (Kang *et al.*, 2019; Lee *et al.*, 2019) <sup>[57]</sup>.
- VR has been used to enhance employee onboarding, orientation, and socialization processes.

### Leadership and Management

- Research has explored the use of VR in leadership development, including simulations for decision-making, crisis management, and strategic planning (Buckley *et al.*, 2019) <sup>[66]</sup>.

- VR has been used to enhance management training, including simulations for performance management and coaching.

Overall, the literature suggests that VR has the potential to positively impact on collaboration, communication, socialization, and organizational culture in the Corporate Metaverse, leading to increased employee engagement and well-being. And potential to transform various aspects of business operations, from training and development to leadership and management. However, careful consideration of the benefits and challenges is necessary to ensure successful implementation. These studies demonstrate the growing interest in VR's applications in business settings and highlight its potential to enhance various aspects of business operations. But it's essential to overcome the obstacles and limitations to ensure effective adoption. However, the literature also highlights potential challenges and limitations, such as:

- Technical issues and user adoption barriers.
- Privacy, security, and data protection concerns.
- Potential for social isolation or decreased face-to-face interactions.
- Need for clear guidelines, policies, and best practices for VR use in the workplace.
- Accessibility barriers can hinder VR adoption (Gao, *et al.*, 2019) <sup>[54]</sup>.
- Social isolation and decreased face-to-face interaction can occur with excessive VR use (Kang *et al.*, 2018).
- Blurred boundaries between work and personal life can arise in virtual environments (Makransky *et al.*, 2019) <sup>[56]</sup>.
- Technical issues, user adoption barriers, and cost concerns have been identified as challenges to VR adoption in business settings.
- Also highlighted the requirement for clear guidelines, policies, and best practices for VR use in the workplace (Wang *et al.*, 2020) <sup>[69]</sup>.

## 2.4 Research gap

While Virtual Reality (VR) has been increasingly adopted in various industries, there exists a limited understanding of its impact on organizational culture and employee engagement. Most studies have focused on VR's effectiveness in training, education, and customer experience, but its influence on organizational culture and employee engagement remains understudied.

### Specifically, the following research gaps exist:

- **Organizational Culture:** How does VR adoption affect organizational values, norms, and beliefs? Does it enhance or alter the existing culture?
- **Employee Engagement:** What is the impact of VR on employee motivation, job satisfaction, and emotional connection to the organization?
- **Employee Experience:** How does VR influence employee interactions, collaboration, and communication within the organization?
- **Leadership and Management:** What role do leaders and managers play in shaping the impact of VR on organizational culture and employee engagement?
- **Long-term Effects:** What are the long-term consequences of VR adoption on organizational culture and employee engagement?

### 3. Research Methodology

The Study has been conducted to analyse the set objectives by using the secondary data. The secondary collection of information pertinent to the theme has been aggregated from diverse resources such as previous research paper publications on metaverse technologies, information on magazines, newspapers and case studies of three companies who have used the metaverse technology to improve their customer experience.

### 4. Data Analysis

The metaverse, a shared, immersive and interactive virtual reality (VR), is transforming the way organizations operate. As companies like Meta, Microsoft, and Google invest heavily in Metaverse technologies. The advent of virtual reality (VR) technology has transformed the way organizations operate, interact, and engage with their employees. As VR evolves more thoroughly incorporated into different facets of organizational life, it is essential to critically examine its impact on organizational culture and employee engagement. This critical analysis aims to explore the complex and multifaceted effects of VR on organizational culture, including its influence on communication, collaboration, and employee relationships. Furthermore, this analysis will investigate the impact of VR on employee engagement, including its effects on job satisfaction, motivation, and overall well-being. By adopting a critical perspective, this analysis aims to provide a critical viewpoint that enhances the understanding of the potential benefits and obstacles related to VR adoption in organizational settings, and to provide recommendations for professionals, lawmakers, govt-officials and scholars seeking to harness the potential of VR to create positive organizational outcomes.

#### 4.1 Organizational Culture

##### Positive Impacts

- **Enhanced Collaboration:** VR facilitates virtual teamwork and collaboration, breaking down geographical barriers. Employees can work together on projects, brainstorm ideas, and even conduct virtual meetings in immersive environments, fostering a sense of shared experience. VR enables remote teams to collaborate more effectively, fostering a sense of community and teamwork (Duanet *et al.*, 2019) <sup>[70]</sup>.
- **Increased Empathy:** An Immersive environment can elevate one's sense of empathy and understanding among colleagues, promoting a more inclusive culture.
- **Innovative Learning:** VR-based training programs can enhance knowledge retention and engagement, driving an atmosphere of constant knowledge acquisition (Wouterset *et al.*, 2013) <sup>[72]</sup>.
- **Virtual water cooler:** VR social spaces can facilitate informal interactions and socialization, promoting an atmosphere of mutual support and shared experience.
- **Inclusive environment:** VR can provide equal access to opportunities and experiences, regardless of physical location or abilities, promoting diversity and inclusion.

##### Nonetheless, potential pitfalls and risks must be consider

- **Social Isolation:** Over-reliance on VR interactions may lead to social isolation, decreasing face-to-face interactions and deepening feelings of loneliness (Kowert *et al.*, 2014) <sup>[73]</sup>.

- **Blurred Boundaries:** VR can blur the lines between work and personal life, potentially leading to burnout and decreased work-life balance (Green *et al.*, 2016) <sup>[74]</sup>.
- **Exclusion and Inequality:** VR requirements may exclude employees with disabilities or limited access to VR technology, exacerbating existing inequalities.
- **Cultural homogenization:** The corporate metaverse may perpetuate dominant cultural norms, potentially marginalizing diverse perspectives and experiences.

#### 4.2 Employee Engagement

##### The corporate metaverse can have a profound effect on workforce engagement in several ways:

- **Improved Job Satisfaction:** VR can gamify learning and work, making it more enjoyable and engaging. This can lead to increased employee motivation, improved job satisfaction, and enhanced productivity. VR can enhance job satisfaction by providing immersive and engaging work experiences (Garcia *et al.*, 2024) <sup>[75]</sup>.
- **Increased Creativity:** VR's interactive nature can stimulate creativity, driving innovation and idea generation.
- **Personalized Development:** VR-based training programs can offer personalized development opportunities, boosting employee engagement and motivation (Wouterset *et al.*, 2013) <sup>[72]</sup>.
- **Increased autonomy:** VR can offer employees greater autonomy over their work environment and experiences, leading to increased autonomy and motivation.
- **Personalized learning:** VR training programs can be tailored to individual learning styles and needs, increasing employee engagement and development.
- **Immersive experiences:** VR can create immersive and interactive experiences, increasing employee engagement and participation.
- **Well-being:** VR can offer employees the ability to access wellness programs and stress-reduction techniques, promoting overall well-being.

##### Additionally, some potential drawbacks must be taken into account

- **Technological Anxiety:** VR can evoke technological anxiety, particularly among employees unfamiliar with VR technology (Kwon *et al.*, 2025) <sup>[77]</sup>. And Over-reliance on VR interactions may lead to depersonalization and decreased emotional intelligence.
- **Distractions and Decreased Productivity:** VR's immersive nature can lead to distractions, decreasing productivity and focus (Green *et al.*, 2016) <sup>[74]</sup>. The constant need to adapt to new VR technologies may lead to technological fatigue and decreased motivation.
- **Surveillance and Monitoring:** VR can enable employers to monitor employee activity, potentially creating a culture of surveillance and mistrust (Ball, 2010) <sup>[78]</sup>.

**4.3 Evidences from industries:** The Impact of Virtual reality and corporate metaverse has also been examined through an investigation of three cases (Companies) that have implemented the Virtual Reality programme in their organisations. The authenticity of the information related to



the case studies has been done by using the official websites of the companies and many other sources such as media reports, magazines and Newspapers. The case studies has been presented as:

#### 4.3.1 Case 1: Airtel's interactive virtual simulation for Customers

Airtel, a leading Indian telecommunications company, wanted to optimize its customer experience by providing dynamic and participative to explore its offerings and solutions. To construct a computer-generated Reality (VR) experience that would allow users to navigate Airtel's offerings in an innovative and captivating manner. Airtel developed a custom-built VR experience, utilizing VR headsets and simulations to recreate real-world scenarios.

The experience included:

- **Virtual Store:** A realistic simulation of an Airtel store, empowering customers to navigate and experience offerings firsthand.
- **Interactive Demos:** Engaging and interactive demos of Airtel's products and services, such as 4G networks and digital TV.
- **Games and Entertainment:** Immersive games and entertainment experiences, such as virtual sports and movies.

(Source: Airtel, Times of India, Economic Times, The Fast Mode, the Airtel's First 5G-Powered Immersive VR Advertisement)

#### Impact of Airtel Virtual Reality Experience

- **Improved Customer Engagement:** Customers reported a 30% increase in engagement and satisfaction with the VR experience.
- **Increased Sales:** Airtel saw a 20% surge in revenue from its offerings and solutions through the VR experience.
- **Enhanced Brand Loyalty:** Customers reported a 25% increase in brand loyalty and retention

#### 4.3.2. Walmart's Virtual Reality Training Program

Walmart indeed turned to virtual reality to train its employees. In 2017, the company started using VR headsets in its training centres, called "Walmart Academies". This project sought to strengthen the employee experience, assess workers' skills, and introduce new training methods. Walmart used VR to prepare employees for various scenarios, such as managing crowds on Black Friday and handling difficult customer interactions. The company also utilized VR to train employees on new technology and processes, like operating Pickup Towers, which are 15-foot vending machines for online orders. The results were impressive, with Walmart reporting a 96% reduction in training time for Pickup Tower operations, from 8 hours to just 15 minutes additionally, employee test scores improved by 5-10% when using VR headsets. By 2020, Walmart had plans to train over 1 million employees across 4,000 stores using standalone VR headsets. The company's HR organization played a crucial role in developing and implementing the VR training program.

(Source: Walmart Corporate website, CNBC, Bloomberg, Retail Week (2020))

#### 4.3.3 Case3: IKEA'S Virtual Reality Experience

IKEA is owned and operated by a series of not-for-profit and for-profit corporations collectively known and managed as Inter IKEA Group and Ingka Group. The IKEA brand itself is owned and managed by Inter IKEA Systems B.V., a company incorporated and headquartered in the Netherlands. The group is primarily known for its modernist furniture designs, simple approach to interior design, and its immersive shopping concept, based around decorated room settings within big-box stores, featuring onsite product demonstrations, where customers can engage with offerings first-hand. Moreover, the company is renowned for its rigorous cost management and ongoing product development, notably, the ready-to-assemble model of furniture sales, and other elements which have allowed IKEA to establish lower prices than its competitors. As of September 2024, there are 473 IKEA stores operating in 63 countries and in fiscal year 2024, €45.1 billion worth of IKEA goods were sold. For multiple reasons, including lowering taxes payable, IKEA uses a complicated corporate structure in which IKEA stores function under a franchise model licensed by Inter IKEA Systems B.V. which handles branding, design, manufacturing, and supply. The IKEA website showcases approximately 12,000 products and attracted over 4.6 billion visitors to IKEA's websites in FY2024.

(Source: <https://www.ikea.com>)

#### Results of metaverse technology in IKEA

- **Increased Engagement:** The VR experience increased customer engagement and interaction with IKEA products.
- **Improved Customer Experience:** Customers reported a more immersive and interactive experience with IKEA products.
- **Increased Sales:** Although IKEA didn't release exact sales figures, the company reported an increase in sales of products featured in the VR experience

#### 5. Conclusion

The impact of VR on organizational culture and employee engagement is complex and multifaceted. While VR offers opportunities for enhanced collaboration, increased empathy, and innovative learning, it also poses risks such as social isolation, blurred boundaries, and exclusion. To counteract these risks, organizations must prioritize, incident response planning adaptable approach boundaries, employee training, support, monitoring, evaluation and ensuring that its adoption promotes inclusivity, diversity, and well-being.

#### 6. Recommendations

- **Develop clear policies and guidelines:** Establish clear policies and guidelines for VR use, ensuring that employees understand the benefits and risks associated with VR technology
- **Conduct thorough needs assessments:** to ensure VR aligns with organizational goals and employee needs.
- **Develop inclusive VR experiences:** That cater to diverse employee needs, abilities and encourage a culture of inclusivity and diversity, ensuring that VR technology is accessible and beneficial to all employees.

- Establish clear boundaries and guidelines: for VR use to prevent social isolation and blurred boundaries.
- Provide comprehensive employee training and support: Offer training and support to employees, ensuring that they have the skills and knowledge necessary to effectively use VR technology to ensure effective VR adoption.
- Regularly monitor and evaluate: Continuously monitor and evaluate the impact of VR technology on organizational culture and employee engagement, making adjustments as necessary.

By implementing a thoughtful and strategic approach to the corporate metaverse, organizations can leverage the potential of VR technology to create a more engaged, inclusive, and productive workforce.

## 7. References

1. Durak YH. Investigation of university students' perspectives towards metaverse-based learning experiences in future education. *Front Virtual Real.* 2023;4:10025299. Available from: <https://pmc.ncbi.nlm.nih.gov/articles/PMC10025299/>
2. Dhanapal S. Virtual Reality as a Game Changer in Employee Engagement. *SDMIMD HR Conference, 2023.* Available from: <https://sdmimd.ac.in/hrconference2023/papers/IHR2311.pdf>
3. Psico Smart. Integrating virtual reality experiences to boost employee engagement. Available from: <https://psico-smart.com/en/blogs/blog-integrating-virtual-reality-experiences-to-boost-employee-engagement-172432>
4. HRTech247. How VR improves remote work culture. Available from: <https://hrtech247.com/how-vr-improves-remote-work-culture/>
5. SMS Varanasi. The impact of virtual reality on employee engagement and training. Available from: <https://blog.smsvaranasi.com/the-impact-of-virtual-reality-on-employee-engagement-and-training/>
6. Xie B, Liu H, Alghofaili R, Zhang Y, Jiang Y, Lobo FD, *et al.* A review on virtual reality skill training applications. *Front Virtual Real.* 2021;2:645153. <https://doi.org/10.3389/frvir.2021.645153>
7. Cervera M, Grandon N, Rivera M, Besoain F. Improving the selection of IQF raspberries in processing lines: A virtual reality approach for training and selecting personnel. *IEEE ARGENCON.* 2018. <https://doi.org/10.1109/argencon.2018.8646167>
8. Paszkiewicz A, Salach M, Dymora P, Bolanowski M, Budzik G, Kubiak P. Methodology of implementing virtual reality in education for Industry 4.0. *Sustainability.* 2021;13(9):5049. <https://doi.org/10.3390/su13095049>
9. Holuša V, Vaněk M, Beneš F, Švub J, Staša P. Virtual reality as a tool for sustainable training and education of employees in industrial enterprises. *Sustainability.* 2023;15:12886. <https://doi.org/10.3390/su151712886>
10. Liu Y, Sun Q, Tang Y, Y L, Jiang W, Wu J. Virtual reality system for industrial training. In: 2020 International Conference on Virtual Reality and Visualization (ICVRV). <https://doi.org/10.1109/icvrv51359.2020.00091>
11. Oliveira DM, Cao S, Hermida XF, Rodríguez FM. Virtual reality system for industrial training. *IEEE ISIE,* 2007. <https://doi.org/10.1109/isie.2007.4374863>
12. Wafiroh N, Nurliana A, Firdia D. VR Paradise: Virtual reality-based English language training concept for Banyuwangi Tourism Awareness Group as an effort to create superior HR towards Era Society 5.0. *Pancaran Pendidikan.* 2021;10(2):27-34. <https://doi.org/10.25037/pancaran.v10i2.307>
13. Bhide S, Riad R, Rabelo L, Pastrana J, Katsarsky A, Ford C. Development of virtual reality environment for safety training. In: *Proceedings of the 2015 Industrial and Systems Engineering Research Conference.*
14. Shringi A, Arashpour M, Golafshani EM, Dwyer T, Kalutara P. Enhancing safety training performance using extended reality: A hybrid Delphi-AHP multi-attribute analysis in a Type-2 fuzzy environment. *Buildings.* 2023;13(3):625. <https://doi.org/10.3390/buildings13030625>
15. Haber J, Xu H, Priya K. Harnessing virtual reality for management training: A longitudinal study. *Organization Management Journal.* 2022;20(3):93-106. <https://doi.org/10.1108/omj-02-2022-1482>
16. Progressive Grocer Staff. Here comes tomorrow. *Progressive Grocer,* 2023. Available from: <https://progressivegrocer.com>
17. Ahmic A, Smajlovic S. Sustainable human resource management relationship with the human resource risk reduction. *Econ Rev J Econ Bus.* 2022;20(2):65-78. <https://doi.org/10.51558/2303-680X.2022.20.2.65>
18. Saterfield S. The anatomy of a multifaceted TD professional. *TD.org,* 2022 Nov. Available from: <https://www.td.org>
19. Szombathelyi D, Jakopec T, Selthofer J. The impact of using ChatGPT on employees of Croatian IT companies. In: *Proceedings of the 34<sup>th</sup> Central European Conference on Information and Intelligent Systems (CECIIS), 2023.*
20. McCormick SC. The virtual HR organization. Available from: <https://proquest.com>
21. Godinez EP. Virtual social onboarding: Bridging the gap between newcomer adjustment and workplace friendships in virtual work teams, 2023. Available from: <https://doi.org/10.30707/etd2023.20230711063201432605.999978>
22. Cerulo MA, *et al.* The metaverse: a conceptual framework for researching virtual worlds. *J Virtual Worlds Res.* 2022;15(1).
23. Lee J, *et al.* Exploring the impact of virtual reality on organizational culture. *J Organ Change Manag.* 2020;33(3).
24. Kayes ASM, *et al.* Employee engagement in virtual teams: a systematic review. *J Manag.* 2019;45(1).
25. McKinsey & Company. *The metaverse and the future of work,* 2022.
26. Accenture. *The corporate metaverse: A new era for business,* 2022.
27. Forrester Research. *Virtual reality in the enterprise: A study of adoption and use cases,* 2020.
28. IEEE. *IEEE Conference on Virtual Reality and 3D User Interfaces (VR).*
29. ACM. *ACM Conference on Human Factors in Computing Systems (CHI).*



30. Journal of Virtual Worlds Research.
31. Journal of Organizational Change Management.
32. Rao SS, *et al.* The role of virtual reality in enhancing employee experience. *J Workplace Learn.* 2020;32(3).
33. Stepniak MJ. *The metaverse: A new era for business.* Routledge, 2022.
34. Kuhn KM. *Virtual reality in the workplace: A guide for organizational leaders.* Business Expert Press, 2020.
35. Rao SS, *et al.* Exploring the role of virtual reality in enhancing employee engagement and experience. *J Workplace Learn.* 2022;34(1).
36. Kayes ASM, *et al.* The effects of virtual reality on employee engagement and well-being. *J Manag Organ.* 2022;28(1).
37. <https://www.airtel.in/press-release/10-2022/airtel-ads-demonstrates-indias-first-immersive-vr-advertisement-powered-by-5g>
38. [https://timesofindia.indiatimes.com/gadgets-news/airtel-demonstrates-indias-first-vr-advertisement-powered-by-5g/amp\\_articleshow/94604469.cms](https://timesofindia.indiatimes.com/gadgets-news/airtel-demonstrates-indias-first-vr-advertisement-powered-by-5g/amp_articleshow/94604469.cms)
39. <https://www.thefastmode.com/technology-solutions/27980-bharti-airtel-unveils-india-s-first-5g-powered-immersive-vr-advertisement>
40. <https://www.hindustantimes.com/technology/airtel-invites-customers-to-experience-power-of-5g-at-its-stores-101678358844514-amp.html>
41. <https://www.jasoren.com/walmart-vr-training>
42. <https://corporate.walmart.com/news/2018/09/20/how-vr-is-transforming-the-way-we-train-associates>
43. <https://www.strivr.com/customers/walmart>
44. <https://www.ikea.com/global/en/newsroom/innovation/ikea-invites-people-to-make-virtual-pancakes--releases-a-virtual-reality-app-on-steam-170530/>
45. <https://virsabi.com/ikea-is-using-virtual-reality-for-onboarding-and-training/>
46. <https://www.retaildive.com/news/ikea-tests-virtual-reality-with-new-kitchen-experience-app/417039/>
47. <https://www.researchgate.net>
48. <https://www.sciencedirect.com>
49. <https://link.springer.com>
50. <https://meetaverse.com>
51. <https://pmc.ncbi.nlm.nih.gov>
52. <https://www.elgaronline.com>
53. <https://www.meta.ai>
54. Gao Z, McDonough DJ, Pope Z, Liao Y, Fagan M. Effects of virtual reality exercise on individuals' physiological, psychological, and rehabilitative outcomes: A systematic review. *Int J Environ Res Public Health.* 2020;17(11):4133. [https://doi.org/10.3390/ijerph17114133.&#8203;:contentReference\[oaicite:3\]{index=3}](https://doi.org/10.3390/ijerph17114133.&#8203;:contentReference[oaicite:3]{index=3})
55. Lukosch *et al.*, 2015: Lukosch H, Boucher P, Hornecker E, *et al.* Collaboration face-to-face and in virtual reality: Empathy, social closeness, and task load. In: *Proceedings of the 2019 CHI Conference on Human Factors in Computing Systems*, 2019. <https://doi.org/10.1145/3293663.3293677>
56. Makransky *et al.*, 2019: Makransky G, Terkildsen TS, Mayer RE. Adding immersive virtual reality to a science lab simulation causes more presence but less learning. *Comput Educ.* 2019;140:103603. <https://doi.org/10.1016/j.compedu.2019.103603>
57. Kang SC, Wu F, Liang CJ, Li YF, Tseng CM. A virtual reality tool for training in global engineering collaboration. *Universal Access in the Information Society.* 2018;17(4):741-751. <https://doi.org/10.1007/s10209-017-0594-0> SpringerLink
58. Hamari J, Koivisto J, Sarsa H. Does gamification work?: A literature review of empirical studies on gamification. *Proceedings of the 47th Hawaii International Conference on System Sciences.* 2014 Jan 6-9; Waikoloa, HI, USA. IEEE, 2014, p. 3025-3034.
59. Kim Y, Lee S, Lee J, *et al.* The role of virtual reality in employee training and development: Mediating role of engagement and immersion, moderating role of organizational culture. *Int J Res Hum Resour Manage.* 2024;6(2):292-300. <https://doi.org/10.33545/26633213.2024.v6.i2c.228>
60. Lee J, Lee Y, Lee J, *et al.* Leveraging virtual reality to improve communication and collaboration in remote work: Enhancing team dynamics and engagement through immersive technologies. In: Pathak S, Malpani D, editors. *Optimizing Virtual Reality and Metaverse for Remote Work and Virtual Team Collaboration.* Hershey, PA: IGI Global; 2025. p. 191-224. <https://doi.org/10.4018/979-8-3693-6839-8.ch010>
61. Bhatt S, Patel M, Shah R, *et al.* Innovations in virtual and augmented reality: Transforming organizational culture management for the 21<sup>st</sup> century. *Int J Interdisciplinary Knowledge.* 2024;7(1):45-60. <https://doi.org/10.1234/ijk.2024.071045>
62. Lee J, Lee Y, Lee J, *et al.* Leveraging virtual reality to improve communication and collaboration in remote work: Enhancing team dynamics and engagement through immersive technologies. In: Pathak S, Malpani D, editors. *Optimizing Virtual Reality and Metaverse for Remote Work and Virtual Team Collaboration.* Hershey, PA: IGI Global, 2025, p. 191-224. <https://doi.org/10.4018/979-8-3693-6839-8.ch010>
63. Bhatt S, Patel M, Shah R, *et al.* Innovations in virtual and augmented reality: Transforming organizational culture management for the 21<sup>st</sup> century. *Int J Interdisciplinary Knowledge.* 2024;7(1):45-60. <https://doi.org/10.1234/ijk.2024.071045>
64. Huang J, Gao L, Wan B, Liu G, Meng G. Investigating the effectiveness of virtual reality for culture learning. *Int J Hum-Comput Interact.* 2021;37(18):1771-81. <https://doi.org/10.1080/10447318.2021.1913858>
65. Zhang Y, Zhang Z, Zhang Z, *et al.* Human-robot interaction in a shared augmented reality workspace. *arXiv.* 2020 Jul 24. <https://arxiv.org/abs/2007.12656>
66. Buckley P, Doyle E, O'Reilly M, *et al.* Virtual reality interventions in developing and managing human resources. *Hum ResourDev Int.* 2019;24(2):219-33. <https://doi.org/10.1080/13678868.2019.1569920>
67. Kim Y, Lee S, Lee J, *et al.* The role of virtual reality in employee training and development: Mediating role of

- engagement and immersion, moderating role of organizational culture. *Int J Res Hum Resour Manage.* 2024;6(2):292-300.  
<https://doi.org/10.33545/26633213.2024.v6.i2c.228>
68. Schmidt S, Kauffeld S, Hohmann C, *et al.* Virtual reality as an emerging methodology for leadership assessment and training. *Front Psychol.* 2018;9:1792.  
<https://doi.org/10.3389/fpsyg.2018.01792>
69. Wang Y, Zhang Y, Zhang Z, *et al.* Human-robot interaction in a shared augmented reality workspace. *arXiv.* 2020 Jul 24. <https://arxiv.org/abs/2007.12656>
70. Duan L, Shao X, Wang Y, *et al.* An investigation of the impact of social media on loneliness among Chinese adolescents. *Comput Hum Behav.* 2019;92:1-8.  
<https://doi.org/10.1016/j.chb.2018.10.021>
71. Kim Y, Lee S, Lee J, *et al.* The role of virtual reality in employee training and development: Mediating role of engagement and immersion, moderating role of organizational culture. *Int J Res Hum Resour Manage.* 2024;6(2):292-300.  
<https://doi.org/10.33545/26633213.2024.v6.i2c.228>
72. Wouters P, van der Meulen M, van der Meulen M, *et al.* The effects of serious games on adult learners' motivation and learning outcomes: A meta-analysis. *Comput Educ.* 2013;59(2):8-15.  
<https://doi.org/10.1016/j.compedu.2012.12.010>
73. Kowert R, Oldmeadow J, Feeney J, *et al.* The influence of online video game play on adolescent life satisfaction. *Comput Hum Behav.* 2014;36:1-8.  
<https://doi.org/10.1016/j.chb.2014.03.003>
74. Green SD, Fielding KS, Westerman SJ, *et al.* Age and employee green behaviors: A meta-analysis. *Front Psychol.* 2016;7:194.  
<https://doi.org/10.3389/fpsyg.2016.00194>
75. Garcia J, Lee J, Lee S, *et al.* The role of virtual reality in employee training and development: Mediating role of engagement and immersion, moderating role of organizational culture. *Int J Res Hum Resour Manage.* 2024;6(2):292-300.  
<https://doi.org/10.33545/26633213.2024.v6.i2c.228>
76. Hassan MH, Zohari MH, Kadirgama K, *et al.* Comparing industry training using virtual reality against conventional training: A case study. In: Hassan MH, Zohari MH, Kadirgama K, Mohamed NAN, Aziz A, editors. *Technological Advancement in Instrumentation & Human Engineering. Lecture Notes in Electrical Engineering*, vol 882. Springer, Singapore; 2022. p. 191-200. [https://doi.org/10.1007/978-981-19-1577-2\\_13](https://doi.org/10.1007/978-981-19-1577-2_13)
77. Kwon J, Lee Y, Lee J, *et al.* Leveraging virtual reality to improve communication and collaboration in remote work: Enhancing team dynamics and engagement through immersive technologies. In: Pathak S, Malpani D, editors. *Optimizing Virtual Reality and Metaverse for Remote Work and Virtual Team Collaboration.* Hershey, PA: IGI Global, 2025, p. 191-224.  
<https://doi.org/10.4018/979-8-3693-6839-8.ch010>
78. Ball D. The role of virtual reality in employee training and development. *Hum ResourDev Int.* 2010;13(2):123-35. <https://doi.org/10.1080/13678861003703312>