PROFESSIONAL CONSULTING ENGAGEMENT

REPORT 2024

Prepared By
Dawood Ali

Findings, Analysis, Recommendations and Action Plan

A COMPREHENSIVE REPORT

Sponsor - JIX Limited New Zealand
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University of Otago
ŌTĀKOU WHAKAIHU WAKA

Preface

This report represents the culmination of my final MBA project at the University of Otago, New Zealand, and serves as a comprehensive consulting engagement for JIX Limited, a company immersed in the dynamic and evolving field of Virtual Reality (VR) and Augmented Reality (AR) technology. Drawing on my 16 years of experience in various ICT roles and industries—ranging from financial institutions and FinTech to airline and aviation, e-commerce, education, media, TV channels, and banking—this project integrates a wide array of professional insights and regional experiences from the UAE, Denmark, and New Zealand.

The report begins with an Executive Summary that encapsulates the key insights and recommendations derived from the consulting engagement. It proceeds with an Introduction, providing the necessary context and objectives of the study. The Approach & Methodology section details the extensive research methods employed, including online research, survey, interview, company analysis, and a variety of analytical frameworks such as PESTLE, Porter's Five Forces, VRIO, CAGE, SWOT, Blue Ocean Strategy, and the ANSOFF Matrix. The Key Findings section summarizes the primary outcomes of the research, while the Analysis applies MBA theoretical learnings to interpret these findings. Following this, the Recommendations offer strategic action points tailored to JIX for sustainable growth and improved market positioning. The Implementation Plan outlines practical steps for applying these recommendations, and the Conclusion provides a final summary of the report's insights and implications. The Appendices contain supplementary materials like illustrations and charts, and the References list the sources and literature that informed the research and analysis.

This report is a product of rigorous analysis and thoughtful consideration, aimed at delivering actionable insights and strategic recommendations to help JIX navigate the complex landscape of VR/AR technology. I extend my gratitude to my professors, mentors, and peers at the University of Otago for their invaluable support and guidance throughout this project. It is my hope that this report proves to be a valuable resource for JIX and contributes meaningfully to its future success in the technology sector.

Christchurch, New Zealand

Mr. Dawood Ali

MBA Student

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Executive Summary

JIX Limited, a New Zealand-based AR/VR and Vision AI technology studio, has consistently delivered innovative and immersive solutions over the past seven years. Specializing in Augmented Reality (AR), Virtual Reality (VR), and Vision AI, JIX's offerings include intellectual property (IP) generation, proof of concepts (POC), prototypes, and feasibility studies for various industries. The company's primary objective is to bridge the gap between academia and industry, positioning itself as a leader in providing rapid, customized technological solutions.

Challenges

While JIX has a strong technological foundation and a reputable market presence, it faces challenges in marketing, brand visibility, and high-profile project acquisition. The absence of a standardized product offering further limits its ability to scale and generate consistent revenue streams. Additionally, JIX must navigate a highly competitive AR/VR landscape, where rapid technological advancements and high equipment costs pose significant external threats.

Recommendations

To overcome these challenges, this report recommends eight key strategic actions:

1. **Forming Strategic Partnerships**: Collaborating with industry players & customers to drive market penetration and innovation.
2. **Leveraging Brand and Customer Relationships**: Emphasizing JIX's identity as a Kiwi-owned company and enhancing digital marketing efforts.
3. **Securing High-profile Projects**: Delivering exceptional results and maintaining strong client relationships to win prestigious projects.
4. **Exploring Standard Product Offerings**: Developing a scalable, standardized product to diversify the company's portfolio and ensure steady revenue.
5. **Seeking Funding Opportunities**: Pursuing local and international funding to bolster capital for strategic growth.
6. **Launching Awareness Campaigns**: Educating the public and potential clients about the potential of AR/VR through targeted content and events.
7. **Maintaining Cutting-edge Lab Facilities**: Investing in technology, partnerships, and continuous staff training to ensure the lab remains a leader in innovation.
8. **Developing Industry-specific Proposals**: Creating tailored AR/VR solutions for sectors such as healthcare, defence, and tourism to expand the client base.

JIX is at a critical juncture, where implementing these recommendations, including adopting a Blue Ocean Strategy, will allow it to differentiate itself and create new value propositions. By focusing on strategic partnerships, innovation, and industry-specific solutions, JIX is poised to become a global leader in AR/VR and Vision AI, driving sustainable growth and expanding its presence in both domestic and international markets.

Prepared by Dawood Ali (9733513).

Introduction of JIX Limited

JIX Limited is a cutting-edge technology studio, specializing in Augmented Reality (AR), Virtual Reality (VR), Vision AI, and interactive game development. Since its founding in April 2017, JIX has been at the forefront of creating bespoke digital experiences that captivate, educate, and entertain. Over the past seven years, the company has consistently delivered immersive and engaging solutions that redefine the realms of learning, storytelling, and marketing in the digital age. By meticulously designing each project, JIX aims to push the boundaries of technology and creativity, offering innovative experiences that stand out in a rapidly evolving landscape.

Company Structure

Founder and CEO: At the helm of the organization, the Founder and CEO is responsible for guiding the company's vision, strategy, and overall operations. This role involves overseeing all departments to ensure alignment with the company's goals and objectives.

Development & Engineering: This department focuses on the technical backbone of the company's products and services. It includes:

- Senior Developers: Experienced developers who lead complex projects and mentor junior staff.
- Junior Developers: Assist in various development tasks under the guidance of senior developers.
- Software Engineers: Focus on the architecture and building of software solutions.
- Interns: Gain practical experience while contributing to ongoing projects.

Creativity & Design: This team is responsible for the visual and interactive aspects of the company's offerings. It includes:

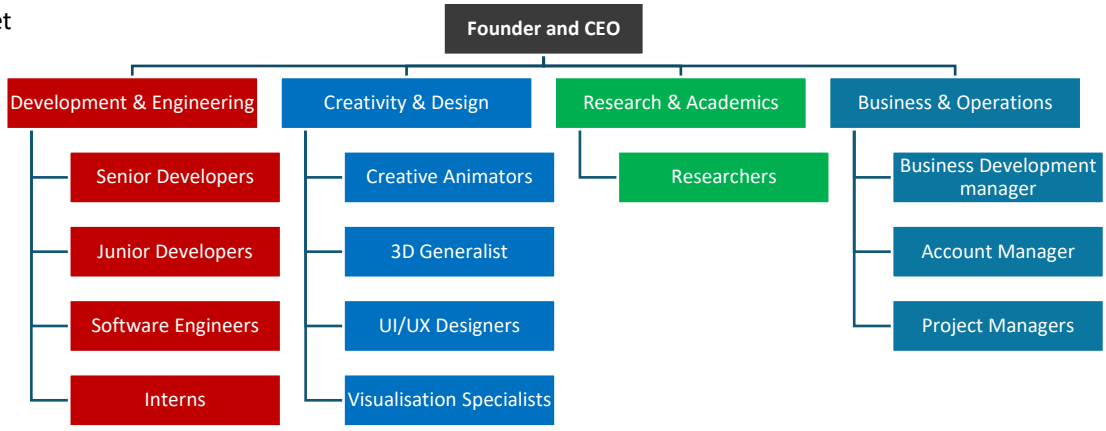
- Creative Animators: Craft compelling animations to enhance user experiences.
- 3D Generalist: Specializes in creating 3D models and environments.
- UI/UX Designers: Design user interfaces and experiences to ensure product usability.
- Visualization Specialists: Experts in turning concepts into visual representations.

Research & Academics: A dedicated team that pushes the boundaries of innovation through research. It includes:

- Researchers: Conduct studies and experiments to support product development and innovation.

Business & Operations: This department ensures that the business runs smoothly and grows strategically. It includes:

- Business Development Manager: Focuses on building partnerships and driving sales.
- Account Manager: Manages client relationships and ensures customer satisfaction.
- Project Managers: Oversee the execution of projects, ensuring they are completed on time and within budget



Company Offerings

JIX is a forward-thinking technology studio that specializes in pioneering the future of storytelling, marketing, learning, and retail through advanced augmented reality (AR), virtual reality (VR), and Vision AI solutions. By merging creative innovation with technological expertise, JIX offers a wide range of services, including the generation of intellectual property (IP), proof of concepts (POC), prototypes, and feasibility studies. These services are designed to evolve into market-ready products, providing tangible value and innovative solutions to their clients. JIX does not offer any products or platforms and does not comprise a traditional marketing mix. Instead, they focus exclusively on providing bespoke guidance and support in the rapidly advancing fields of AR, VR, and Vision AI. Their multidisciplinary approach enables them to address complex challenges, turning conceptual ideas into practical and impactful solutions. Whether developing immersive experiences or implementing cutting-edge AI-driven technologies, JIX stands as a strategic partner, empowering organizations to harness the full potential of emerging technologies in a dynamic and competitive landscape.

Key Competitors

In New Zealand, JIX faces competition from several notable companies specializing in AR, VR, and Vision AI. Rush (https://www.rush.co.nz) is a prominent player in creating immersive AR/VR experiences tailored to various industries. Aurecon Group (https://www.aurecongroup.com) offers extensive engineering, design, and advisory services, including advanced technology solutions. HIT Lab NZ (https://www.hitlabnz.org/) is recognized for its academic-focused research in AR and VR technologies. StaplesVR (https://www.staplesvr.com) excels in creating emerging technology training and entertainment solutions across sectors such as aviation, defence, health and safety, medical, first responders, and entertainment, offering both subscription SAAS training packages and bespoke software development. Waxeye (https://www.waxeye.co.nz) is known for its adaptability and collaborative nature, providing strategic tech partnerships, end-to-end web builds, and immersive expertise. Māui Studios (https://www.mauistudios.co.nz/) is a kaupapa Māori production studio that develops digital content grounded in mātauranga Māori, tikanga, and tīpuna values for local and global audiences.

Unlike these competitors, JIX does not offer pre-built products or platforms but focuses on providing bespoke services for concept testing and rapidly fulfilling organizational needs. JIX operates as a practical research lab that bridges the gap between industry and academia, distinguishing itself from HIT Lab NZ's purely academic approach.

High level strengths & weaknesses

At a high level, the reported strengths and weaknesses of JIX provide a comprehensive overview of the company's market position and operational dynamics. The strengths underscore JIX's solid reputation in the New Zealand market, its proven ability to deliver projects on time, and its state-of-the-art laboratory facilities, which support advanced technological development. Additionally, the company benefits from positive word-of-mouth referrals, which enhance its credibility and client satisfaction. JIX's strengths include a strong market presence with a track record of meeting customer expectations and utilizing cutting-edge technology in its well-equipped laboratory. The company's reliable performance and positive client feedback further solidify its standing as a credible and effective service provider in the industry. However, JIX faces several weaknesses that impact its visibility and market impact. The company currently lacks a robust communication and marketing strategy, which affects its public profile and brand recognition. Additionally, JIX has not effectively leveraged storytelling to highlight its unique value proposition. The absence of high-profile projects also limits its public exposure and potential to attract broader attention.

Challenges

JIX Limited aims to maintain its core mission of bridging the gap between industry and academia as a central element of its strategic vision. The company is recognized for its solid reputation in the New Zealand market, a proven track record of timely project delivery, and state-of-the-art laboratory facilities that support advanced technological development. Additionally, JIX benefits from positive word-of-mouth referrals, enhancing its credibility and client satisfaction. However, to enhance its domestic presence and achieve global expansion sustainably, JIX needs a more comprehensive strategy.

Currently, JIX faces several challenges. Its communication and marketing strategy is underdeveloped, which impacts its public profile and brand recognition. The company has also struggled to leverage storytelling to effectively convey its unique value proposition, and the lack of high-profile projects limits its public exposure and broader appeal. Additionally, due to limited business administration expertise, JIX encounters difficulties in conducting thorough industry analysis and defining clear priorities, as well as in developing a practical roadmap to achieve its strategic objectives.

Objectives of consultancy engagement

The objective of this consultancy engagement is to conduct a comprehensive research and analysis of the industry pertinent to JIX's business operations. The insights gained from this analysis will serve as the foundation for developing a detailed strategy and implementation plan for JIX. This approach aims to ensure that JIX fully leverages the strategic recommendations and key findings identified during the engagement. Any practical implementation of the proposed strategy shall not be considered in scope.

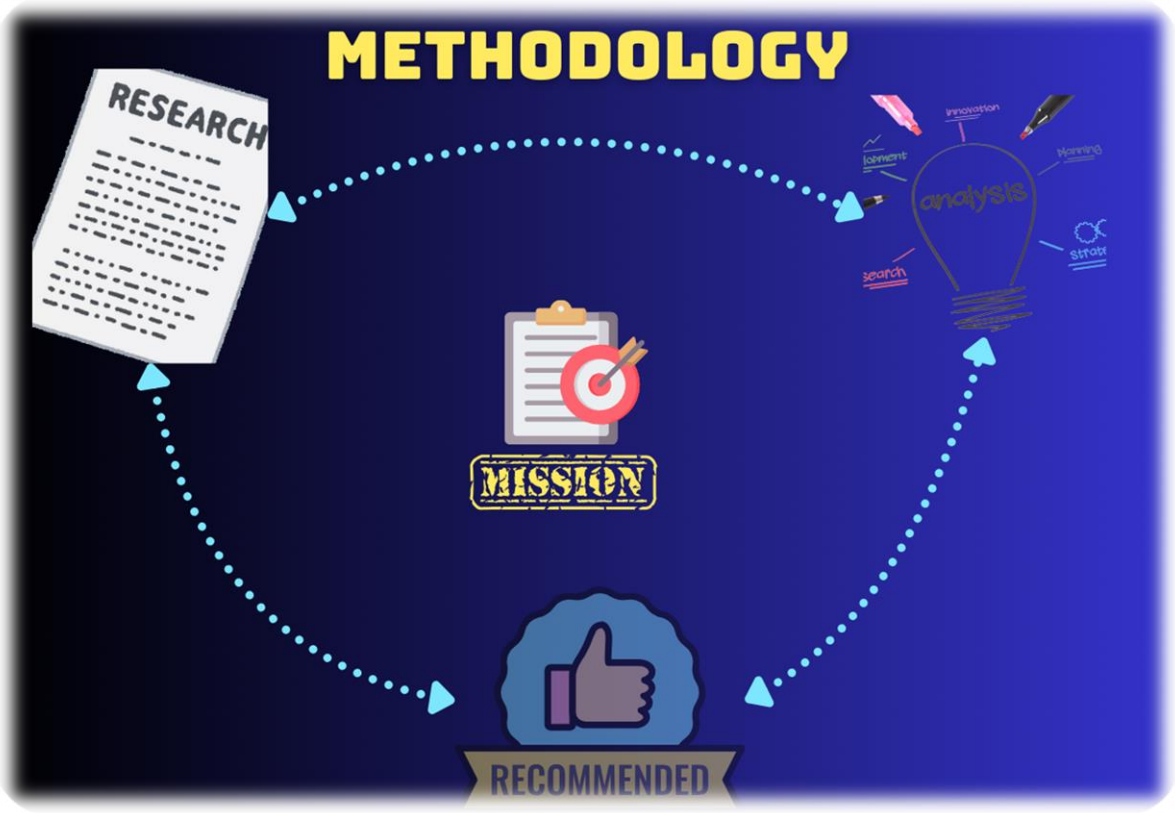
Approach

To achieve the objectives of our consultancy engagement with JIX Limited, we have followed a structured approach cantered around three core pillars: Research, Analyse, and Recommend (RAR).

Research Methodology

Our preliminary research aimed to capture a comprehensive understanding of JIX, including its organizational structure, operational challenges, and strategic goals. Additionally, we conducted a market analysis to identify solutions best suited to JIX's needs and objectives. The following steps were undertaken to carry out the research:

- **Comprehensive Market Assessment:** A thorough review of industry trends, competitors, and opportunities through online resources.
- **Review of Academic Materials:** Analysis of relevant research papers and academic literature to gain insights into AR/VR trends and challenges.
- **Online Surveys:** Quantitative data collection to gather perspectives from stakeholders and market participants.
- **Interviews with Subject Matter Experts:** Qualitative insights obtained through discussions with industry professionals and AR/VR experts.



Analysis & Findings

Brief background of Immersive experiences

Imagine stepping into a world where you're no longer bound by the limitations of reality—a world where dreams come to life. That's the core of what JIX is all about: creating immersive experiences that captivate, inspire, and engage. From the moment we dream as children, we experience different worlds, sometimes familiar, sometimes entirely new. These dreams transport us, much like immersive technologies do today.

Throughout history, we've found ways to capture that sense of wonder. In ancient theatres, audiences would lose themselves in stories played out on stage, disconnecting from reality for a brief time. Modern cinema took that experience to a new level with films like Lord of the Rings and The Matrix, reimagining our world or creating entirely new ones. We've all experienced the thrill of entering these alternate realities, where our abilities transcend what's possible in everyday life.

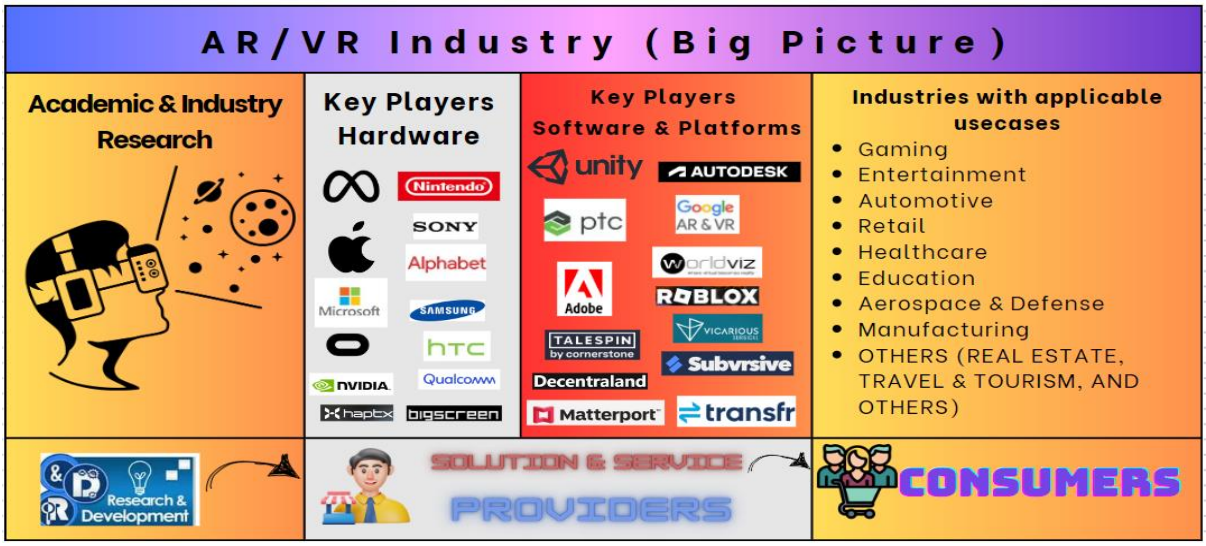
Fast forward to the age of 3D gaming—where immersion isn't just passive, it's active. Players don't just watch the story; they live it, controlling characters and making choices that affect the outcome. This evolution has led us to the present day, where augmented reality (AR) and virtual reality (VR) have taken immersive experiences to unprecedented heights.

The journey began in 1929 with the Link Trainer, the first flight simulator. In the 1950s, Morton Heilig's Sensorama brought simulated theatre experiences to life, followed by the invention of the first VR headset in the 1960s. From Sega's VR glasses in the 1990s to today's Oculus Rift and Vision Pro, the progression has been astounding. AR and VR have now become part of our daily lives, with applications far beyond entertainment.

In education and training, these technologies allow learners to grasp concepts more quickly through persuasive, interactive experiences. In retail and commerce, augmented reality transforms advertising, making it more engaging than ever. Tourism and hospitality have adopted virtual tours to offer richer, more interactive experiences, while defence sectors use high-tech simulators to train troops efficiently at a fraction of the cost.

The beauty of immersive experiences lies in their ability to captivate and inspire. With each new technological advancement, AR and VR continue to reshape industries, creating endless opportunities for businesses. The future holds limitless possibilities as these immersive worlds become ever more integrated into our lives. The potential is truly extraordinary.

The Big Picture



The overall AR/VR industry is little complex to understand, but if we must understand it well, it's wise to generalise a rough of its bigger picture, that constitute the overall industry,

Academic and industry research sits at the heart of the AR/VR industry, where researchers and scientists explore the transformative potential of immersive technologies across various sectors. Their work delves into theoretical frameworks, human-computer interaction, and the psychological impacts of AR/VR, contributing to a deeper understanding of user experiences and technological advancements. This research leads to practical applications, product development, and the commercialization of AR/VR solutions, addressing business needs such as training, marketing, and remote collaboration. Collaboration between academia and industry fosters innovation, bridges knowledge gaps, and accelerates real-world deployment of these technologies. Crucially, the relationship between AR/VR and cognitive sciences plays a key role, as these technologies directly engage human perception, cognition, and behaviour. Cognitive science examines how the mind processes information, and AR/VR environments influence attention, memory, learning, spatial awareness, and decision-making. For example, VR is used in cognitive therapy and rehabilitation to simulate real-life scenarios, aiding in learning and recovery. Additionally, AR/VR facilitates controlled experiments that provide insights into neural processes, behaviour modification, and the development of more effective user experiences, enhancing usability and learning outcomes through findings from cognitive science.

Hardware manufacturers play a critical role in the overall AR/VR industry by transforming research insights into tangible products that enable immersive experiences. Leveraging advancements in academic and industry research, these manufacturers incorporate cutting-edge technologies such as improved optics, sensors, and haptic feedback systems to enhance user interaction, comfort, and realism. Their collaboration with researchers ensures that the devices they produce, such as headsets, controllers, and tracking systems, are optimized for usability, performance, and affordability. This continuous innovation in hardware is essential for pushing the boundaries of AR/VR applications across different business sectors, as the quality of the hardware directly impacts the effectiveness of immersive experiences. By integrating research-driven improvements, hardware manufacturers help shape the future of the AR/VR industry, driving its growth and adoption in mainstream markets.

Some key AR/VR hardware manufacturers include Meta (formerly Oculus), HTC Vive, Sony, and Microsoft. Meta's Quest series, known for its standalone VR headsets, provides advanced tracking, high-resolution displays, and wireless capabilities, making VR more accessible to consumers and businesses alike. HTC Vive offers the Vive Pro and Vive Focus lines, catering to both high-end consumers and enterprise users with precision tracking and immersive visuals. Sony's PlayStation VR (PS VR) is widely integrated into the gaming world, providing a seamless experience for console users, while Microsoft's HoloLens focuses on augmented reality, delivering mixed-reality solutions for industries such as healthcare, education, and manufacturing. These manufacturers, by integrating research advancements, are vital in pushing AR/VR hardware forward, enabling a broad range of immersive applications.

Platform and software manufacturers are crucial to the AR/VR industry, providing the tools and frameworks that enable the creation of immersive experiences across various industries. While some hardware manufacturers, like Meta and Microsoft, also develop their own software ecosystems to integrate seamlessly with their devices, many AR/VR applications rely on third-party platforms like Unity and Unreal Engine. These software platforms offer robust development environments that allow creators to design, test, and deploy immersive experiences efficiently. Unity, for example, is widely used for its versatility in developing AR/VR applications across sectors such as gaming, education, healthcare, and enterprise training. Then, there is another category of companies specializing in developing software and solutions for various industries, such as PTC, which provides AR tools for industrial use cases like product design and remote assistance, Talespin, which focuses on immersive training and learning solutions for workforce development, and Subvrsive, which delivers custom AR/VR solutions for marketing, entertainment, and brand experiences. These companies create targeted AR/VR applications that address specific industry needs, enabling immersive simulations, training, and collaboration. By bridging the gap between hardware capabilities and application development, these platforms and software developers help unlock the full potential of AR/VR technology, making it accessible and applicable to a broad range of industries.

Zooming out When we zoom out to view the AR/VR industry as a whole, it becomes clear that it operates as an interconnected ecosystem, where hardware providers, Platform developers, and solution creators collaborate to harness the power of academic and industry research. This collaboration fuels the delivery of transformative solutions across a wide range of business sectors, such as gaming, entertainment, automotive, retail, healthcare, education and others. In each of these industries, AR/VR technologies are applied to enhance internal processes, improve training and customer engagement, or streamline operations. Whether it's creating immersive educational environments, virtual product simulations, or interactive customer experiences, AR/VR solutions are tailored to meet industry-specific needs. By integrating cutting-edge hardware with versatile software platforms, these technologies offer significant potential to revolutionize how businesses operate, leading to improved outcomes, more efficient workflows, and enhanced value for end customers. Ultimately, this interconnected network of innovation helps drive the widespread adoption and growth of AR/VR technologies across diverse sectors, unlocking new opportunities for advancement and transformation.

Macro ESTEMPLE Analysis

Here's our Macro factor findings based on the ESTEMPLE analysis framework Appendix 1.1,covering the eight key factors: Economic, Social, Technological, Ethical, Media, Political, Legal, and Environmental aspects.

Economic Factors: The AR/VR industry is set to witness significant growth, particularly in gaming, healthcare, and education, offering considerable opportunities for businesses. Availability of venture capital and government support can facilitate innovation, although currency fluctuations pose risks to international sales by making products more expensive for foreign buyers. Additionally, global trade policies and tariffs could further disrupt pricing strategies and supply chains, emphasizing the need for effective financial management and global trade compliance.

Social Factors: The growing acceptance of AR/VR, especially among younger generations, positions it well for increased adoption in entertainment, education, and work-from-home environments. However, there are notable social risks, including the potential for addiction and the diminishing of face-to-face interactions. These trends highlight the need for AR/VR companies to address concerns related to social isolation, desensitization to violence, and escapism.

Technological Factors: Technological advancements, particularly in 5G and AI, are transforming the AR/VR space by improving connectivity, speed, and user experience. This creates vast opportunities for the integration of immersive technologies across multiple sectors. However, the industry must address issues of data security, including the handling of sensitive personal information and the vulnerability of AR/VR systems to cyberattacks. Companies will need to invest heavily in cybersecurity to protect user data and maintain trust.

Ethical Factors: Ethical considerations in AR/VR are growing, especially concerning content moderation and user manipulation. Immersive technologies offer the potential for misuse, where users might be influenced or manipulated through virtual environments. Ethical content management and clear guidelines to prevent inappropriate content and unethical practices will be crucial for the long-term sustainability of the AR/VR industry.

Media Factors: AR/VR offers transformative opportunities for media, particularly in immersive storytelling, interactive advertisements, and social VR platforms. These technologies can revolutionize the way users engage with content by providing deeper and more interactive experiences. However, as AR/VR becomes integrated into mainstream media, companies need to ensure that content is ethical and aligns with audience expectations regarding interactivity and narrative control.

Political Factors: Political risks such as geopolitical tensions, trade policies, and technology export controls can have a direct impact on global operations, supply chains, and market access for AR/VR businesses. Regulations concerning surveillance and security, especially in countries with strict data protection and monitoring laws, also influence AR/VR development and deployment.

Legal Factors: Legal issues primarily revolve around data privacy laws and intellectual property. Regulations like the GDPR have a direct impact on how AR/VR companies handle user data, making compliance essential to avoid legal repercussions. Intellectual property, including patents and trademarks, remains a significant concern for companies developing AR/VR technologies, as innovation often leads to complex IP disputes that must be managed carefully to avoid litigation.

Environmental Factors: Environmental sustainability is increasingly important in the AR/VR industry. Key concerns include the energy consumption of data centres supporting AR/VR applications and the carbon footprint of hardware development. Managing e-waste through recycling and ensuring that operations are aligned with sustainable practices, such as adopting renewable energy, are essential for future-proofing the industry. Companies that prioritize environmental certifications and sustainability will likely gain a competitive advantage by appealing to eco-conscious consumers.

In summary, while the AR/VR industry offers numerous opportunities driven by technological innovation and growing consumer demand, businesses must navigate a complex landscape of ethical, legal, and political challenges. Focusing on sustainable practices, cybersecurity, and ethical content management will be critical in ensuring long-term success.

Market Trends and Applications of AR, VR, and AI Across Key Industries

The integration of Augmented Reality (AR), Virtual Reality (VR), and Artificial Intelligence (AI) is transforming a wide range of industries, providing innovative solutions to enhance efficiency, engagement, and personalization. These technologies are being rapidly adopted and adapted across multiple sectors, each benefiting from the unique capabilities of AR, VR, and AI Appendix 1.2.

Healthcare: AR aids in surgery by providing real-time, critical information to surgeons, improving accuracy and decision-making. VR offers immersive simulations for training medical professionals and supports patient rehabilitation and pain management. AI revolutionizes diagnostics, personalized treatment plans, drug discovery, and patient record management through predictive analytics.

Education and Training: AR enhances learning experiences by providing interactive visual representations of complex subjects, while VR offers immersive environments like virtual labs or historical reconstructions. AI powers adaptive learning platforms, enabling personalized education and content creation for students and professionals alike.

Entertainment and Gaming: AR has made a notable impact in mobile games, like "Pokémon Go," overlaying digital elements in real-world environments. VR offers fully immersive gaming experiences, allowing players to interact with virtual worlds. AI enhances these experiences by powering intelligent non-player characters (NPCs), adaptive difficulty levels, and procedurally generated content.

Retail and E-commerce: AR enables customers to visualize products in their homes or try on items virtually, creating engaging shopping experiences. VR allows customers to browse and purchase in virtual store environments. AI optimizes customer service, inventory management, and recommendation engines, improving personalization and operational efficiency.

Manufacturing and Industry 4.0: AR assists in assembly instructions and maintenance tasks by overlaying real-time data onto machinery, while VR provides safe environments for training workers on complex equipment. AI drives efficiency through predictive maintenance, quality control, and supply chain optimization.

Real Estate and Architecture: AR allows buyers to visualize furniture or modifications in a space, while VR offers virtual tours of properties or architectural designs before construction. AI supports design automation, property management, and predictive analytics for real estate trends.

Automotive: AR is used in heads-up displays (HUDs) to provide real-time driving information. VR offers training simulations and virtual customization of vehicles for consumers. AI drives autonomous vehicles, predictive maintenance, and advanced driver-assistance systems (ADAS), transforming the driving experience.

Tourism and Hospitality: AR enhances travel experiences with interactive guides, while VR provides virtual tours of destinations and hotels, allowing travellers to explore options before booking. AI personalizes travel recommendations, automates booking, and enhances customer service.

Military and Defence: AR is used for heads-up displays and real-time tactical information in military operations, while VR offers immersive training simulations for soldiers. AI powers autonomous drones, threat detection systems, and strategic decision-making tools.

Marketing and Advertising: AR is increasingly used in interactive ad campaigns, allowing consumers to engage with brands through smartphones or AR glasses. VR creates immersive brand experiences in virtual spaces, while AI analyses consumer behaviour, optimizes ad targeting, and generates personalized content.

Others: In addition to these sectors, AR, VR, and AI are likely to find further applications in areas not yet fully explored or included in the current analysis. These could include law enforcement (virtual crime scene reconstructions and AI-driven facial recognition), agriculture (AI-powered precision farming and AR-based real-time monitoring of crops and livestock), and human resources (virtual interviews, AR onboarding experiences, and AI-driven talent assessments). The possibilities for integrating these technologies into more industries are vast, and as the technology continues to evolve, new and innovative use cases will emerge.

The synergy between AR, VR, and AI is driving innovation across these industries, enabling immersive, efficient, and personalized experiences. As these technologies continue to evolve, their applications will likely expand, reshaping industries and creating new opportunities for growth.

Market Forces

In the AR/VR technology studio sector, competition is influenced by several external and internal factors. The threat of new entrants remains moderate due to the high barriers to entry, including the need for specialized technical expertise, significant investment in R&D, and the ability to generate and protect intellectual property. Established studios benefit from their reputation and portfolio, making it difficult for newcomers to gain a foothold without substantial capital and experience. However, suppliers, particularly hardware manufacturers and key software platforms like Unity and Unreal Engine, wield considerable power due to the dependence on their products for delivering immersive experiences. This dependency can limit a studio's ability to negotiate better terms or diversify its development capabilities (see Appendix 1.3 for detailed analysis).

The bargaining power of buyers is considerable, especially as clients increasingly demand customized solutions tailored to specific industries like healthcare, defence, or retail. While large corporate clients and government departments may have greater negotiating leverage, established AR/VR studios with proven success and strong portfolios can offset this power by justifying premium pricing. The threat of substitutes, including traditional digital platforms or in-house AR/VR development, also puts pressure on studios to continuously innovate and offer value-added services. Meanwhile, industry rivalry is intensifying as more tech studios enter the market, leading to pricing competition and the need for differentiation through niche offerings or cutting-edge technological solutions, further outlined in Appendix 1.3.

JIX Competitive Advantage

Based on our VRIO Analysis Appendix 1.4 we found, JIX Limited possesses several key resources and capabilities that contribute to its competitive advantage in the technology industry. The company's core strengths lie in its deep technological expertise in augmented reality (AR), virtual reality (VR) and Vision AI. This knowledge base, combined with state-of-the-art laboratory facilities and a unique position bridging academic research and practical industry applications, provides JIX with valuable and rare assets that are difficult for competitors to replicate quickly.

The company's approach to delivering custom, client-focused solutions further enhances its competitive position. By offering bespoke services tailored to specific client needs, JIX differentiates itself from competitors who may rely on pre-built platforms or standardized offerings. This flexibility, coupled with the company's ability to rapidly prototype and develop proof-of-concept solutions, allows JIX to address complex business challenges effectively. The positive client feedback and strong reputation for on-time project delivery underscore the value of this approach.

However, JIX faces challenges in fully leveraging its competitive advantages due to underdeveloped marketing and business development strategies. While the company possesses significant technological capabilities and innovative potential, its ability to communicate these strengths effectively to the market is limited. This weakness in organizational structure and strategy prevents JIX from fully capitalizing on its rare and valuable resources. To maintain and enhance its competitive position in the long term, JIX needs to invest in strengthening its marketing, communication, and business development capabilities. By doing so, the company can better leverage its technological expertise and unique market position to achieve sustained growth and competitive advantage.

Research Findings

Additional to research from research papers, and internet findings, we have conducted an online survey and interview with an industry professional to gather some more practical insights and here is what have found,

Quantitative Survey outcomes,

We conducted an online survey Appendix 1.5 and based on the outcomes Appendix 1.6, The survey results reveal a significant knowledge gap in AR/VR technologies among respondents, with many expressing limited familiarity or interest. This lack of understanding contributes to hesitation in adoption, particularly due to perceived high costs, technical complexity, and integration challenges with existing systems. Organizations from tech-driven sectors, education, and healthcare show more interest in AR/VR applications and academic collaborations, while others remain cautious. The global AR/VR landscape is perceived as dominated by countries like the USA, China, and Japan, with potential for growth in regions such as the Asia-Pacific.

To address these challenges and capitalize on opportunities, AR/VR providers should focus on educating potential clients about the practical benefits and applications of the technology. This can be achieved through workshops, demonstrations, and case studies that showcase real-world implementations. Offering cost-effective, entry-level solutions and strong integration support could help overcome adoption barriers. Additionally, tailoring partnerships to specific industry needs and expanding into regions with growth potential could drive wider acceptance of AR/VR technologies. By bridging the gap between academic research and industry applications, AR/VR JIX can position itself as valuable partner in driving innovation and solving real-world challenges across various sectors.

Interview with SME,

The interview Appendix 1.7 with Dr. Humayun Khan provided valuable insights into the evolution, opportunities, and challenges of the AR/VR industry. Over the past decade, AR/VR has progressed from experimental stages to practical applications in training, such as VR-based evacuation simulations. However, issues like simulator sickness, locomotion challenges, and limited user adoption remain hurdles. Dr. Khan highlighted three future growth areas: AI integration, enhanced locomotion, and multi-sensory experiences, all of which are expected to drive immersive technology forward. Sectors like healthcare, military, and defence, with larger budgets, are seen as prime areas for AR/VR growth, while education, though full of potential, is hindered by funding constraints.

Dr. Khan emphasized the growing accessibility of AR/VR development tools, allowing labs to create more sophisticated applications with smaller teams. However, key challenges persist, including public awareness, the high cost of hardware, and the lack of interoperability across devices. He also noted the physical and psychological risks associated with VR use, such as addiction and safety hazards. The integration of AI with AR/VR, particularly in content creation, opens exciting opportunities for more interactive and intelligent experiences. For JIX to strengthen its market position, Dr. Khan advised developing a distinctive core product, similar to what other specialized firms, like Flame Systems, have done in fire haptics, to carve out a unique niche in the industry.

CAGE- Global Expansion Analysis

As JIX is keen to explore the options of global expansion for their sustainable growth, our research and surveys have identified the USA/Canada in Norrh America, China, Japan & Singapore in Asia and Australia as potential candidates for targeted global regions. In this context, JIX Limited's CAGE analysis highlights both opportunities and challenges across these key markets. The cultural landscape in the USA and Canada is characterized by a high acceptance of technology and a strong preference for innovative, immersive experiences in entertainment and marketing. While both countries share similar technological engagement levels, Canada's multicultural environment introduces regulatory differences that JIX must navigate. Australia demonstrates familiarity with AR/VR across various sectors, emphasizing experiential content, which aligns well with JIX's offerings. In contrast, China presents a rapidly evolving market with unique content preferences shaped by local culture and stringent state regulations, necessitating careful market entry strategies.

From an administrative perspective, the USA offers a relatively straightforward regulatory environment; however, JIX must contend with varying state laws concerning data privacy and intellectual property. Canada's regulatory landscape aligns closely with the U.S. but includes additional privacy laws that may impact operations. Australia provides favourable conditions for technology development, while China poses significant administrative hurdles with strict regulations requiring local partnerships. Japan, with its strong legal framework and robust intellectual property protections, still presents language barriers that may complicate compliance. Conversely, Singapore boasts pro-business regulations and government support for tech innovation, facilitating smoother market entry.

Geographically, JIX enjoys closer proximity to Australia, which enhances logistics and collaboration, though time zone differences could impact real-time interactions with their New Zealand base. USA and Canada, while farther away, shares cultural ties that may mitigate distance-related challenges. Expanding into China and Japan introduces considerable geographic distance, making local partnerships essential for market navigation. In contrast, Singapore's tech-savvy environment allow for easier collaboration. Europe presents a diverse geographic landscape, with varying distances and logistics complexity across multiple countries.

Economically, the USA stands out as the largest AR/VR market, offering significant funding and investment opportunities, supported by high consumer purchasing power. Canada's stable economy reflects growing interest in AR/VR applications, while Australia shows increasing investments in technology. China's rapidly expanding AR/VR market presents high returns alongside fierce competition and regulatory challenges. Japan's robust economy is competitive, and Singapore offers a supportive economic environment for startups. In Europe, diverse economic conditions and varying levels of investment across countries require JIX to tailor its approach, particularly in more mature markets like Germany and the UK. Overall, the CAGE analysis Appendix 1.8 underscores the importance of understanding cultural, administrative, geographic, and economic factors to effectively navigate global expansion in the AR/VR landscape.

Recommendations

Based on the existing company insights and the data collected, we have conducted a comprehensive SWOT analysis (Appendix 2.1), which has resulted in eight strategic action points for JIX to pursue in order to achieve its objectives:

1. Form Strategic Partnerships
2. Leverage Brand and Customer Relationships
3. Secure High-profile Projects
4. Explore Standard Product Offerings
5. Pursue Funding Opportunities
6. Launch Awareness Campaigns
7. Maintain Cutting-edge Lab Facilities
8. Develop and Pitch Industry-specific Proposals

We recommend that JIX adopt the slogan *"Bridging Innovation & Impact"* and align it with the following mission statement:

> *"Empowering industries with cutting-edge AR, VR, & Vision AI solutions through academic excellence and visionary creativity, while driving sustainable growth and expanding our global presence."*

To effectively achieve its strategic goals, JIX must ensure that its entire business structure and operations are closely aligned with this mission statement, guiding the company towards its envisioned success.

Forming Strategic Partnerships

JIX can achieve effective collaboration with customers and industry stakeholders to drive market penetration through several key actions:

1. **Tailored Engagement and Co-creation**: JIX should adopt a customer-centric approach by engaging clients and industry stakeholders early in the development process. This can be done through joint workshops, brainstorming sessions, and proof-of-concept (POC) projects where customers contribute insights to shape the final solutions. By involving clients in the creative process, JIX ensures that the products are highly relevant and aligned with market needs, which strengthens long-term partnerships.

2. **Strategic Alliances and Industry Partnerships**: Forming alliances with key players in complementary industries—such as hardware manufacturers, educational institutions, or larger tech firms—can amplify JIX's market reach. These partnerships can lead to collaborative projects that allow JIX to access new customer bases and resources that would otherwise be unattainable. Additionally, collaborating on research initiatives with academic institutions can help JIX stay at the cutting edge of technology while gaining credibility in both academic and industry circles.

3. **Networking and Industry Presence**: Participating in industry events, conferences, and trade shows is crucial for building visibility and forming relationships with influential stakeholders. By positioning itself as a thought leader and showcasing its innovations at these events, JIX can establish trust and gain recognition as a key player in AR, VR, and Vision AI technologies. Networking at these events will open doors to new opportunities and potential collaborations.

4. **Continuous Feedback and Iteration**: By creating an ongoing feedback loop with its customers and partners, JIX can continually refine its offerings. This includes setting up regular touchpoints for collecting feedback on performance, understanding evolving client needs, and demonstrating improvements. This iterative approach ensures that JIX's solutions remain relevant and that customers see JIX as an agile, responsive partner.

Through these targeted strategies, JIX can foster deep, mutually beneficial relationships with both customers and industry stakeholders, driving increased market penetration domestically and globally and finally unlocking new business opportunities.

Leveraging Brand and Customer Relationships

JIX can leverage its brand and customer relationships by implementing a series of strategic actions to strengthen its marketing efforts and capitalize on its identity as a Kiwi-owned company:

1. **Emphasize the "Kiwi-owned" Brand in Marketing**: JIX should highlight its identity as a New Zealand-based company in its branding and communications. By tapping into the national pride associated with Kiwi innovation and craftsmanship, JIX can create a sense of trust and loyalty with domestic customers. This can be achieved by incorporating the Kiwi-owned message into the company's logo, website, and marketing materials, as well as participating in national campaigns that promote local businesses. Leveraging this identity can also differentiate JIX from international competitors, making it a preferred partner for organizations seeking to support homegrown talent.

2. **Enhance Digital Marketing Efforts**: JIX should focus on improving its online presence by enhancing its website with updated content, customer success stories, and showcasing the full range of its AR, VR, and Vision AI offerings. Additionally, the company should actively utilize LinkedIn and other social media platforms to engage with potential clients and industry peers by sharing thought leadership articles, project updates, and insights into emerging technologies. Regular content updates, such as blog posts or video demos, can help position JIX as a leader in the field while attracting new customers. JIX should also invest in targeted digital advertising to increase visibility among global audiences and specific industries.

3. **Attend and Showcase at International Events**: JIX should participate in international trade shows, technology conferences, and industry events to showcase its cutting-edge AR/VR solutions. By attending global events, JIX can engage directly with potential partners, customers, and investors, while demonstrating its innovative capabilities to a wider audience. This will not only raise JIX's global profile but also provide opportunities for networking, collaboration, and market expansion.

4. **Customer-driven Marketing Strategy**: JIX can craft a marketing strategy that focuses on customer success stories and real-world applications of its AR, VR, and Vision AI solutions. Highlighting case studies where customers have achieved significant benefits from JIX's services—such as increased efficiency, improved training, or enhanced customer engagement—will demonstrate JIX's value. These success stories can be shared across multiple platforms, including social media, newsletters, and industry publications, showcasing how JIX solves real problems for its customers and differentiating the company from competitors.

By focusing on its Kiwi heritage, enhancing its digital marketing, and increasing its visibility at international events, JIX can craft a targeted and effective marketing strategy that enhances brand loyalty, increases global visibility, and helps the company expand both locally and internationally.

Securing High-profile Projects

JIX can secure high-profile projects by deepening its relationships with existing customers and demonstrating its value through successful project delivery. To achieve this, JIX should focus on delivering exceptional results on current engagements, ensuring customer satisfaction, and using these projects as case studies to highlight its capabilities. Additionally, JIX can maintain regular communication with key clients to understand their evolving needs and propose innovative solutions tailored to their goals. By leveraging positive testimonials and building a portfolio of success stories, JIX can position itself as a trusted partner for high-profile, high-impact projects. Networking at industry events and co-hosting showcases with satisfied clients will also enhance JIX's visibility and credibility, increasing its chances of landing prestigious projects.

Exploring Standard Product Offerings

As suggested by SME during in-person interview, that JIX should have their own standard product for which they can be recognized well for, it is important in AR/VR industry for an organization to have a bespoke standard product that they can offer to wide range of customers to drive steady perpetual income, therefore its crucial for JIX to consider this option and carryout a feasibility study of having a standard product that JIX can develop quickly and easily using their existing resources. For this purpose, JIX can consider ANSOFF framework (Appendix 2.2) as well to determine their market entry strategy based on their risk appetite. Additionally, they can take following actions in this due context,

1. **Conduct Market Research**: JIX should perform comprehensive market research to identify gaps in the current AR, VR, and Vision AI landscape. This includes analysing competitor offerings and gathering insights from existing customers to determine their needs and preferences.

2. **Leverage Workforce Expertise**: Engage the development and engineering teams to brainstorm and assess potential standard products based on their technical expertise and industry experience. Workshops and collaborative sessions can foster innovative ideas that align with market demand.

3. **Pilot Programs**: Once potential product concepts are identified, JIX can create pilot programs or prototypes to test their feasibility. This allows for gathering feedback and making necessary adjustments before launching a full-scale product.

4. **Evaluate Resource Allocation**: Assess the resources required for development, including technology, budget, and personnel. Ensure that the team has the capacity to manage both standard product offerings and existing custom projects effectively.

5. **Develop a Go-to-Market Strategy**: Create a clear strategy for marketing and selling the new standard products, including defining target audiences, pricing models, and distribution channels. This strategy should align with JIX's overall brand identity and customer engagement approach.

By systematically exploring and validating standard product offerings, JIX can diversify its portfolio while leveraging its existing expertise and resources to meet market needs effectively.

Seeking Funding Opportunities

As JIX is a relatively small organization, it is essential for the company to maintain a steady capital structure to realize its broader ambitions. To achieve this, JIX must actively seek out all possible avenues for financial funding. This includes identifying local and international grants, venture capital firms, and angel investors that focus on technology and innovation. By researching and targeting these funding sources, JIX can secure the necessary resources to fuel its strategic growth initiatives.

Developing a compelling pitch is crucial in this pursuit. JIX should create a comprehensive business plan that clearly outlines its vision, market potential, current achievements, and future growth strategies, highlighting its unique value proposition in the AR, VR, and Vision AI sectors. Networking at industry conferences and investor forums will help establish valuable relationships with potential funders, while leveraging existing customer relationships can uncover opportunities for co-development projects or investments. Furthermore, exploring crowdfunding options can not only generate financial support but also enhance brand awareness and customer engagement, ultimately positioning JIX for sustainable growth.

AR/VR Awareness Campaigns

JIX can effectively launch awareness campaigns to educate the public about the potential of AR and VR technologies through several strategic approaches. The company can create engaging content that showcases its innovative experiences, highlighting real-world applications of AR and VR in various industries such as education, healthcare, and marketing. This content can take the form of blog posts, videos, webinars, and interactive demos, allowing potential customers and the general public to experience the technology firsthand. JIX should leverage its social media platforms, including LinkedIn, Instagram, and Facebook, to share success stories, case studies, and insights about AR/VR technologies. Collaborating with influencers or thought leaders in the tech space can further amplify JIX's reach and credibility. Hosting events, workshops, or webinars, both online and in-person, can provide opportunities for direct engagement with audiences, fostering a deeper understanding of how AR/VR can transform their businesses or daily lives.

Maintain Cutting-edge Lab Facilities

To ensure that the AR/VR lab remains at the forefront of technological advancement, JIX can implement several strategic measures. First, establishing partnerships with academic institutions and research organizations will facilitate knowledge sharing and provide access to cutting-edge research and innovations in AR and VR technologies. This collaboration can lead to joint research projects and practical applications that keep the lab aligned with the latest academic findings.

Second, JIX should prioritize continuous training and development for its team members. By investing in ongoing professional development, staff can stay updated on the latest tools, technologies, and industry trends. This can be achieved through workshops, conferences, and online courses, ensuring that the workforce possesses the skills and knowledge necessary to utilize advanced equipment effectively.

Finally, JIX should regularly evaluate and upgrade its lab equipment and software to reflect the latest technological advancements. This may involve budgeting for new tools, systems, and software licenses to enhance the lab's capabilities. Additionally, maintaining a close network with industry peers and participating in industry events will allow JIX to stay informed about emerging technologies and best practices, ensuring its lab remains a leader in the AR/VR space.

Develop and pitch Industry-specific concept proposals

To expand its customer base and secure new business opportunities, JIX should focus on creating tailored, industry-specific proposals and proactively pitching them to potential clients. Leveraging its existing expertise in AR/VR, JIX can develop customized solutions that address the specific needs of various sectors, showcasing its capability to deliver rapid, impactful outcomes with its current resources for e.g.

- **Education**: JIX can offer immersive learning experiences that transform challenging subjects such as science, history, and engineering into engaging, interactive lessons. With its existing technology and expertise, JIX can quickly develop virtual simulations that allow students to explore complex topics in an intuitive, visual manner. These offerings can easily be adapted for different educational levels, from primary schools to universities, where AR/VR can be used to enhance practical training in fields like medicine or architecture.
- **Healthcare**: JIX can rapidly develop AR/VR tools for medical training, such as surgery simulations or patient education modules. Using its current resources, JIX can design immersive training environments where healthcare professionals can practice procedures in a risk-free setting, as well as AR applications that provide visual aids to explain complex medical procedures to patients. These tools could be tailored for hospitals, medical schools, and training centres, delivering value through enhanced learning experiences without the need for significant new investment.

- **Defence**: JIX can leverage its existing capabilities to create immersive training simulations for military personnel, focusing on real-world combat or emergency response scenarios. These VR environments can be deployed quickly, allowing defence organizations to train soldiers and teams in high-pressure situations without physical risks. With AR, JIX can also offer real-time tactical overlays to assist decision-making in field operations, utilizing its current technological framework to adapt these solutions for immediate deployment.
- **Tourism and Hospitality**: JIX can propose immersive pre-visit experiences for the tourism industry, enabling potential travellers to explore destinations virtually before making a booking. With existing tools and expertise, JIX can swiftly develop virtual tours of hotels, resorts, and attractions, allowing businesses in the tourism sector to enhance their marketing efforts. Additionally, JIX can offer augmented reality solutions to enrich the guest experience with interactive maps and guided tours, creating added value with minimal lead time.

By focusing on developing solutions that can be delivered quickly with existing resources, JIX can position itself as a trusted provider of AR/VR technologies across a variety of sectors. Through a proactive and customized approach, JIX will expand its customer base and establish itself as a leader in immersive technology solutions.

Blue Ocean Strategy

In our eight recommendation, as detailed earlier, we propose that JIX adopts a Blue Ocean Strategy (Appendix 3.1) to create new value factors that will position the company uniquely within the AR/VR and Vision AI market. The core of blue ocean strategy is the **Eliminate-Reduce-Raise-Create (ERRC)** grid, which helps businesses systematically optimize their offerings.

This prescribed approach not only allows JIX to escape direct competition by entering uncontested market space but also optimizes its offering levels by raising, reducing, eliminating, and creating new competitive factors that align with industry standards. For example, by forming **strategic partnerships** with key clients, JIX can retain strong collaboration with its existing customer base. This will enable the company to leverage its brand and customer relationships to increase loyalty while simultaneously reducing the complexity of user experience. At the same time, this will raise the level of customization within JIX's offerings, helping it secure high-profile projects that demand bespoke solutions. Additionally, **exploring standardized product offerings** will help JIX enhance its competency in pre-built solutions—an area where the company currently lags behind. Furthermore, **pursuing local and global funding opportunities** will assist JIX in maintaining competitive pricing, while eliminating the high costs typically associated with bespoke AR/VR solutions. Another innovative approach could involve **leasing AR/VR equipment** to clients, thereby reducing their capital expenditures and opening up a new revenue stream for JIX.

Finally, **industry-specific prototype proposals** will enable JIX to expand into new markets by creating tailored proof-of-concept (POC) developments and cross-industry solutions, further smoothing the path for growth in previously untapped sectors.

By implementing these recommendations, JIX can not only strengthen its current market position but also emerge as a key player in both domestic and global markets. This strategic shift will enable JIX to operate beyond the constraints of traditional competition and drive sustainable long-term growth.

Thus, by following the suggested recommendations JIX can not only strengthen its current position in market but will also emerge as key participant in domestic and global market.

Implementation Plan

Top level implementation plan for JIX to follow can be simplified into following 6 stages,

Strategy Redefinition

It is imperative for JIX to reassess and refine its business strategy in alignment with the recommendations outlined in this report to achieve its broader objectives. JIX may utilize the strategy detailed in Appendix 4.1 or modify the provided artifacts as per their discretion.

Communicate objectives

Upon formulating its new strategy, it is vital for JIX to communicate it effectively throughout the organization and, where appropriate, to its customers. This will ensure that all stakeholders clearly understand the company's objectives and the expectations placed upon them. Furthermore, it is essential to incorporate this strategy into the company's external communications, including its official website and other digital media channels.

Organisation restructure

Organizational structure should always align with strategy. Therefore, it is crucial to make significant structural adjustments to the current organization to achieve strategic alignment. We recommend that JIX introduce two additional business units, as detailed in Appendix 4.2:

1. **Business Development and Marketing**: This unit should leverage existing business development resources to effectively develop and communicate the company's value propositions, strengthen relationships with existing clients, and expand the client portfolio in line with the proposed strategy. The proposed company's brand marketing strategy shall also be the responsibility of this business unit.

2. **Product Development**: Establishing this unit is essential for JIX to design concept proposals based on industry use cases and assess the feasibility of standard products. This unit can be led by a senior resource from the Development and Engineering team or a new hire. It will work closely with the development and engineering, creativity, and research teams.

It is imperative to set clear expectations for these new roles, periodically monitor their progress, and provide necessary support to ensure they meet the strategic objectives.

Strategy Implementation Schedule

It is crucial for JIX to develop a comprehensive implementation schedule to track and monitor ongoing progress and measure outcomes. We recommend that JIX allocate at least a calendar year for the implementation of the proposed recommendations outlined in this document, divided into four quarters. A high-level implementation schedule can be found in Appendix 4.3. JIX may adjust this schedule as necessary and would benefit from adopting agile processes to follow the finalized schedule. This approach will provide JIX with a clear roadmap and targeted milestones to achieve.

Implementation and periodic Reviews

Upon finalizing the schedule, JIX must promptly communicate it to the relevant stakeholders within the organization and initiate the corresponding action points. It is also crucial for JIX to review the schedule on a weekly basis to monitor progress and ensure adequate support is provided to the resources involved in implementing the proposed plan.

Strategic Drift

Strategic drift is a common challenge for businesses, occurring when an organization's strategy gradually becomes misaligned with its external environment due to a lack of responsiveness to significant changes. For JIX, it is crucial to regularly adjust its strategic guidelines to remain aligned with market dynamics. The role of executives is pivotal in ensuring that the realized strategy stays in line with the intended objectives by addressing emerging issues promptly. To manage the risk of strategic drift effectively, it is essential to incorporate time for an annual strategy review as part of the organization's governance process.

Risk associated with recommendations

1. Form Strategic Partnerships

- **Risks**: Misaligned objectives, conflicts over intellectual property rights, or unequal power dynamics in partnerships could disrupt collaboration. There may also be a risk of becoming overly reliant on specific partners, limiting flexibility.
- **Management**: Clear partnership agreements, including IP ownership clauses and defined roles, are essential. Diversifying partnerships across industries and geographies can also reduce dependency on any one partner.

2. Leverage Brand and Customer Relationships

- **Risks**: Overextension of the brand into unfamiliar markets can dilute the value of the brand. Additionally, expectations from established customers may create challenges in serving new markets or clients.
- **Management**: Brand strategy should focus on maintaining core values while expanding. Regular communication and management of customer expectations are crucial, ensuring the brand remains consistent in delivering quality and innovation.

3. Secure High-profile Projects

- **Risks**: High-profile projects come with elevated expectations and pressure to deliver innovative results under tight deadlines. Failure to meet expectations can damage the studio's reputation.
- **Management**: Effective project management, clear communication, and milestone tracking are critical. Allocating dedicated resources to high-profile projects and conducting thorough risk assessments before committing can mitigate failure risks.

4. Explore Standard Product Offerings

- **Risks**: Moving from bespoke solutions to standardized offerings may alienate custom solution clients. Additionally, developing and marketing standard products involves high upfront investment, with no guarantee of market acceptance.
- **Management**: Balancing bespoke services with standardized products is key. Conducting market research and starting with limited, scalable offerings can help minimize risk while testing the market demand for standardized products.

5. Pursue Funding Opportunities

- **Risks**: Securing funding, especially from investors unfamiliar with AR/VR technology, may lead to pressure for short-term returns that conflict with long-term R&D goals. There is also a risk of diluting ownership or strategic control.
- **Management**: Pursuing a mix of funding sources—grants, equity, and debt—can reduce the dependency on any one type of financing. Clearly communicating long-term strategic goals to potential investors is also important in securing aligned partners.

6. Launch Awareness Campaigns

- **Risks**: Misaligned marketing messages or campaigns that don't resonate with international audiences can harm brand perception. Additionally, high marketing costs can be a drain on resources if the campaigns are ineffective.
- **Management**: Tailoring awareness campaigns to specific markets through localized content and cultural sensitivity is essential. Testing campaigns in smaller markets before full-scale launches can minimize resource waste.

7. Maintain Cutting-edge Lab Facilities

- **Risks**: Keeping lab facilities up to date with rapidly advancing AR/VR technologies can be costly. Obsolescence of equipment and lack of skilled personnel to operate them could lead to inefficiencies.
- **Management**: Ongoing investment in both infrastructure and staff training is critical. Partnering with hardware manufacturers and research institutions can provide access to the latest technology while reducing overhead costs.

8. Develop and Pitch Industry-specific Proposals

- **Risks**: Failure to fully understand the unique needs of different industries could result in poorly tailored proposals, diminishing credibility. Industry-specific knowledge may also require significant resource investment.
- **Management**: Collaborating with industry experts during proposal development and investing in market research ensures that pitches are well-targeted. Building a modular framework for proposals that can be customized to different sectors also increases efficiency.

By actively identifying these risks and implementing effective risk management strategies—such as strong partnerships, clear project management, diversified funding, and tailored marketing—JIX can navigate the complexities of global expansion while continuing to innovate and serve its industry clients effectively. Additionally, it is crucial for JIX to adequately manage its stakeholders, and the use of a Power vs. Interest matrix, as outlined in Appendix 4.4, will play a key role in this process. This tool will enable JIX to anticipate potential risks and take appropriate measures to manage the various challenges associated with the industry.

Conclusion

In conclusion, JIX Limited is positioned at a pivotal moment in its journey to expand its influence in the AR/VR and Vision AI industry. By leveraging its core strengths, including technological expertise, cutting-edge lab facilities, and the unique role it plays in bridging the gap between academia and industry, JIX has the opportunity to enhance its market presence both domestically and internationally. The adoption of a Blue Ocean Strategy will enable the company to explore uncontested market spaces by redefining its offerings through the elimination, reduction, raising, and creation of competitive factors. With strategic partnerships, enhanced marketing efforts, and tailored industry-specific solutions, JIX is well-equipped to secure high-profile projects and develop a standardized product offering that ensures long-term growth.

Implementing these strategies with a focus on sustainable practices, customer-centric innovation, and operational agility will be crucial in solidifying JIX's competitive advantage in an evolving technological landscape. By remaining adaptive and responsive to emerging market trends and maintaining a focus on delivering exceptional AR/VR experiences, JIX is poised to become a key player in both the local and global markets.

Appendices

Appendix 1.1 – ESTEMPLE Analysis

Economic Factors	1 Year			3 Years			10 Years			Mean	Trend	Impact
	I	P	I*P	I	P	I*P	I	P	I*P			
Market growth	1	0.5	0.5	1.5	0.5	0.75	3	0.5	1.5	0.91		**Opportunity** The AR/VR market is projected to grow significantly, driven by sectors like gaming, healthcare, and education
Funding & Investments	0.5	0.5	0.25	0.5	0.6	0.3	0.6	0.7	0.42	0.42		**Opportunity** Availability of venture capital and government grants for tech innovation can support the growth of AR/VR businesses.
Exchange Rates	-1	0.3	-0.3	-1	0.5	-0.5	-1	0.2	-0.2	-0.33		**Threat** Variations in currency exchange rates can affect international sales and costs for AR/VR companies. A strong domestic currency might make products more expensive for foreign buyers, potentially reducing sales.
Global Trade	-1	0.2	-0.2	-1	0.3	-0.3	-1	0.5	-0.5	-0.33		**Threat** Global trade policies and tariffs can impact the cost of importing and exporting AR/VR hardware and components. Trade restrictions or increased tariffs on tech goods can affect pricing and supply chain dynamics.
												Where, I = Impact, P = Probability

Social Factors	1 Year			3 Years			10 Years			Mean	Trend	Impact
	I	P	I*P	I	P	I*P	I	P	I*P			
Consumer Adoption	1	0.5	0.5	1.5	0.75	1.12	1.6	0.80	1.28	0.96		**Opportunity** Increasing acceptance and demand for immersive experiences in entertainment, education, and remote work are driving AR/VR adoption.
Demographic Trends	1	0.5	0.5	1.5	0.8	1.2	2.0	1.0	2.0	1.23		**Opportunity** Younger generations are more likely to adopt new technologies, making them a key target demographic for AR/VR products.
Addiction and Overuse	-1	0.5	-0.5	-1	0.5	-0.5	-1	0.6	-0.6	-0.53		**Threat** Immersive experiences in AR/VR can lead to excessive use, potentially contributing to addiction or over-reliance on virtual environments as an escape from real-life problems. Desensitization: Prolonged exposure to intense or violent content in AR/VR can desensitize users to real-world violence and reduce emotional sensitivity.
Reduced Face-to-Face Interaction	-1	0.5	-0.5	-1	0.5	-0.5	-1	0.5	-0.5	-0.5		**Threat** Excessive use of AR/VR can lead to reduced face-to-face interactions and social isolation, as individuals may prefer virtual interactions over real-world connections. Escapism: Users may prefer spending time in virtual worlds rather than engaging in real-life social activities, potentially leading to social withdrawal and isolation.
												Where, I = Impact, P = Probability

Technological Factors	1 Year			3 Years			10 Years			Mean	Trend	Impact
	I	P	I*P	I	P	I*P	I	P	I*P			
5G and Connectivity	1	1	1	1.5	1	1.5	1.75	1	1.75	1.41		**Opportunity** The rollout of 5G networks globally can enhance AR/VR experiences by providing faster and more reliable internet connections. This can expand the potential applications and adoption of AR/VR technologies.
Technological Advancements	1	1	1	2	1	2	2.5	1	2.5	1.83		**Opportunity** Broader trends in technology, such as advancements in AI, machine learning, and computing power, influence the capabilities and potential applications of AR/VR technologies.
Innovation and Development	1	0.5	0.5	1	0.75	1	1	0.9	0.9	0.71		**Opportunity** Rapid advancements in AR/VR technology, including improvements in hardware (e.g., headsets) and software (e.g., graphics and processing power), are essential for staying competitive.
Sensitive Data Handling	-1	0.5	-0.5	-1	0.5	-0.5	-1	0.5	-0.5	-0.5		**Threat** AR/VR systems often collect sensitive personal data, including biometric information and behavioral patterns. Ensuring secure handling and storage of this data is critical to protect user privacy.
Vulnerability to Cyberattacks	-1	0.5	-0.5	-1	0.6	-0.6	-1	0.7	-0.7	-0.6		**Threat** AR/VR systems can be vulnerable to hacking, malware, and other cybersecurity threats. Implementing robust security measures is essential to safeguard against potential attacks.
												Where, I = Impact, P = Probability

Ethical Factors	1 Year			3 Years			10 Years			Mean	Trend	Impact
	I	P	I*P	I	P	I*P	I	P	I*P			
Content Moderation	-1	0.5	-0.5	-1	0.5	-0.5	-1	0.5	-0.5	-0.5		**Threat** Ensuring that AR/VR content adheres to ethical and social standards is important to prevent harmful or inappropriate content. Implementing effective content moderation mechanisms is necessary.
Manipulation and Influence	-1	0.5	-0.5	-1	0.5	-0.5	-1	0.5	-0.5	-0.5		**Threat** The immersive nature of AR/VR can be used to manipulate or influence users in ways that may not be ethical. Addressing these potential abuses requires careful consideration of ethical guidelines.
												Where, I = Impact, P = Probability

Media Factors	1 Year			3 Years			10 Years			Mean	Trend	Impact
	I	P	I*P	I	P	I*P	I	P	I*P			
Enhanced Narratives	1	0.5	0.5	1	0.6	0.6	1	0.8	0.8	0.63		**Opportunity** AR/VR allows for the creation of deeply immersive storytelling experiences, where users can explore narratives from within the story itself. This can include interactive documentaries, virtual tours, and immersive news reports.
Interactive Ads	1	0.3	0.3	1	0.5	0.5	1	0.3	0.3	0.36		**Opportunity** AR can be used to create interactive and engaging advertisements that users can interact with through their smartphones or AR glasses, leading to higher engagement rates.
Social VR Platforms	1	0.2	0.2	1	0.5	0.5	1	0.7	0.7	0.46		**Opportunity** Developing VR social platforms where users can interact in virtual environments offers new ways for people to connect and socialize online.
AR Ads	1	0.6	0.6	1	0.8	0.8	1	0.8	0.8	0.73		Social media platforms can integrate AR ads that users can interact with directly through their devices, offering a more engaging and interactive advertising experience.
												Where, I = Impact, P = Probability

Political Factors	1 Year			3 Years			10 Years			Mean	Trend	Impact
	I	P	I*P	I	P	I*P	I	P	I*P			
Global Supply Chains	-1	0.5	-0.5	-1	0.6	-0.6	-1	0.5	-0.5	-0.53		**Threat** Geopolitical tensions and trade policies can disrupt global supply chains, affecting the production and delivery of AR/VR technology. Companies need to manage these risks and explore alternative supply chain strategies.
Surveillance and Security Regulations	-1	0.5	-0.5	-1	0.6	-0.6	-1	0.5	-0.5	-0.53		**Threat** In some countries, there may be regulations related to surveillance and national security that impact AR/VR technologies. This includes rules on data collection, monitoring, and reporting requirements.
Technology Export Control	-1	0.6	-0.6	-1	0.4	-0.4	-1	0.3	-0.3	0.43		**Threat** Certain AR/VR technologies may be subject to export controls or restrictions due to their potential applications in national security or defence. Compliance with these controls is important for international business operations.
Geopolitical Risks	-1	0.5	-0.5	-1	0.6	-0.6	-1	0.7	-0.7	-06		**Threat** Political instability or tensions in different regions can affect market conditions, investment opportunities, and operational risks for AR/VR companies. It is important to assess geopolitical risks and have contingency plans in place.
Market Access	-1	0.5	-0.5	-1	0.4	-0.4	-1	0.3	-0.3	-0.4		**Threat** Political relations between countries can influence market access and business opportunities for AR/VR companies. Positive diplomatic relations can facilitate market entry, while strained relations can pose challenges.
												Where, I = Impact, P = Probability

Legal Factors	1 Year			3 Years			10 Years			Mean	Trend	Impact
	I	P	I*P	I	P	I*P	I	P	I*P			
Data Privacy Laws	-1	0.5	-0.5	-1	0.6	-0.6	-1	0.7	-0.7	-0.6		**Threat** Regulations like the General Data Protection Regulation (GDPR) in Europe and other data protection laws globally impact how AR/VR companies collect, store, and manage user data. Adherence to these laws is essential to avoid legal issues and fines.
Patents and Trademarks	-1	0.5	-0.5	-1	0.5	-0.5	-1	0.5	-0.5	-0.5		**Threat** AR/VR technologies often involve complex IP issues, including patents on hardware and software technologies. Ensuring that innovations are protected and that IP rights are respected is crucial for avoiding legal disputes and fostering innovation.
Content Licensing	-1	0.5	-0.5	-1	0.4	-0.4	-1	0.3	-0.3	-0.4		**Threat** Media companies and content creators need to navigate licensing agreements for content used in AR/VR applications. This includes obtaining permissions and rights for various forms of media and ensuring compliance with IP laws.
												Where, I = Impact, P = Probability

Environmental Factors	1 Year			3 Years			10 Years			Mean	Trend	Impact
	I	P	I*P	I	P	I*P	I	P	I*P			
Operational Efficiency	-1	0.5	-0.5	-1	0.6	-0.6	-1	0.6	-0.6	-0.56		**Threat** Reducing the energy consumption of data centers and cloud services used for AR/VR applications is also crucial. Efficient server management and the use of renewable energy sources can contribute to overall sustainability.
End-of-Life Management	1	0.5	0.5	1	0.7	0.7	1	0.8	0.8	0.66		**Opportunity** The disposal and recycling of outdated or broken AR/VR equipment pose environmental challenges. Developing and promoting recycling programs or take-back schemes can help manage e-waste responsibly.
Carbon Footprint	-1	0.5	-0.5	-1	0.7	-0.7	-1	0.8	-0.8	-0.66		**Threat** Assessing and managing the carbon footprint associated with the development, manufacturing, and operation of AR/VR technologies is essential. Studios should consider strategies for reducing greenhouse gas emissions and offsetting carbon impacts.
Certifications	1	0.5	0.5	1	0.6	0.6	1	0.7	0.7	0.6		**Opportunity** Obtaining environmental certifications, such as ISO 14001 for environmental management, can demonstrate a commitment to sustainability and improve the studio's reputation.
Sustainability Expectations	1	0.5	0.5	1	0.6	0.6	1	0.7	0.7	0.6		**Opportunity** Consumers are increasingly aware of environmental issues and may prefer products from companies that demonstrate a commitment to sustainability. Aligning product development and marketing with these values can enhance brand loyalty and market appeal.
												Where, I = Impact, P = Probability

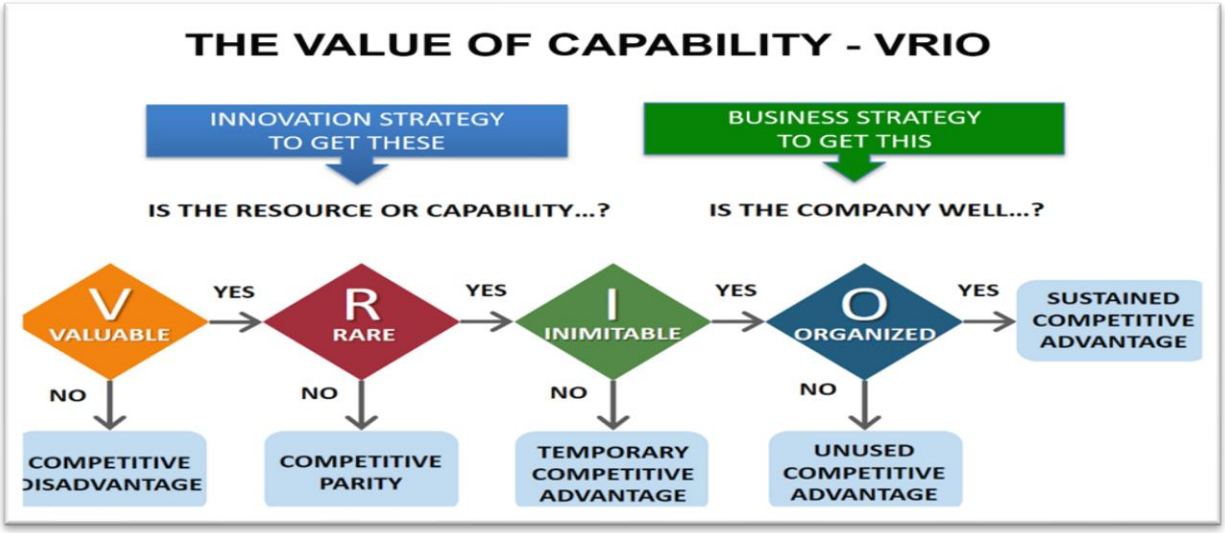
Appendix 1.2 – Market trends and applications of AR/VR/AI

	Industry	Applications
1	**Healthcare**	**AR**: Assists in surgical procedures by overlaying critical information onto the surgeon's field of view. **VR**: Provides immersive training simulations for medical professionals and helps with patient rehabilitation and pain management. **AI**: Used for diagnostics, personalized treatment plans, drug discovery, and managing patient records through predictive analytics.
2	**Education and Training**	**AR**: Enhances learning by providing interactive, visual representations of complex subjects. **VR**: Creates immersive environments for students to learn through experience, such as virtual labs or historical reconstructions. **AI**: Powers personalized learning platforms, adaptive testing, and educational content creation.
3	**Entertainment and Gaming**	**AR**: Used in mobile games that overlay digital elements on the real world, such as "Pokémon Go." **VR**: Provides fully immersive gaming experiences where players can interact with virtual worlds. **AI**: Enhances game design through intelligent NPCs (non-player characters), adaptive difficulty levels, and content generation.
4	**Retail and E-commerce**	**AR**: Allows customers to visualize products in their home or on themselves before purchasing (e.g., virtual try-ons for clothing and cosmetics). **VR**: Enables virtual store experiences where customers can browse and purchase products in a simulated environment. **AI**: Powers recommendation engines, personalized shopping experiences, inventory management, and customer service chatbots.
5	**Manufacturing & Industry 4.0**	**AR**: Assists workers with assembly instructions, maintenance tasks, and quality control by overlaying information onto real-world machinery. **VR**: Used for training workers on complex machinery in a safe, simulated environment. **AI**: Optimizes production processes, predictive maintenance, quality control, and supply chain management.
6	**Real Estate and Architecture**	**AR**: Allows potential buyers to see how furniture or modifications would look in a space. **VR**: Provides virtual tours of properties or architectural designs, allowing clients to explore spaces before they are built. **AI**: Assists in design automation, property management, and predictive analytics for real estate trends.
7	**Automotive**	**AR**: Used in heads-up displays (HUDs) to provide drivers with real-time information on the windshield. **VR**: Provides training simulations for drivers and engineers and allows customers to virtually explore and customize vehicles. **AI**: Powers autonomous driving, predictive maintenance, and advanced driver-assistance systems (ADAS).
8	**Tourism and Hospitality**	**AR**: Enhances travel experiences by providing interactive guides and historical information. **VR**: Offers virtual tours of destinations, hotels, and attractions, allowing travellers to explore before booking. **AI**: Personalizes travel recommendations, automates booking processes, and enhances customer service with chatbots.
9	**Military and Defence**	**AR**: Used in heads-up displays and for real-time tactical information during operations. **VR**: Provides immersive training for soldiers, including combat simulations and mission planning. **AI**: Powers autonomous drones, threat detection systems, and decision-support tools for strategic planning.
10	**Marketing and Advertising**	**AR**: Creates interactive and engaging ad campaigns that consumers can experience through their smartphones or AR glasses. **VR**: Develops immersive brand experiences that can be shared in virtual environments. **AI**: Analyses consumer behaviour, optimizes ad targeting, and generates personalized content.

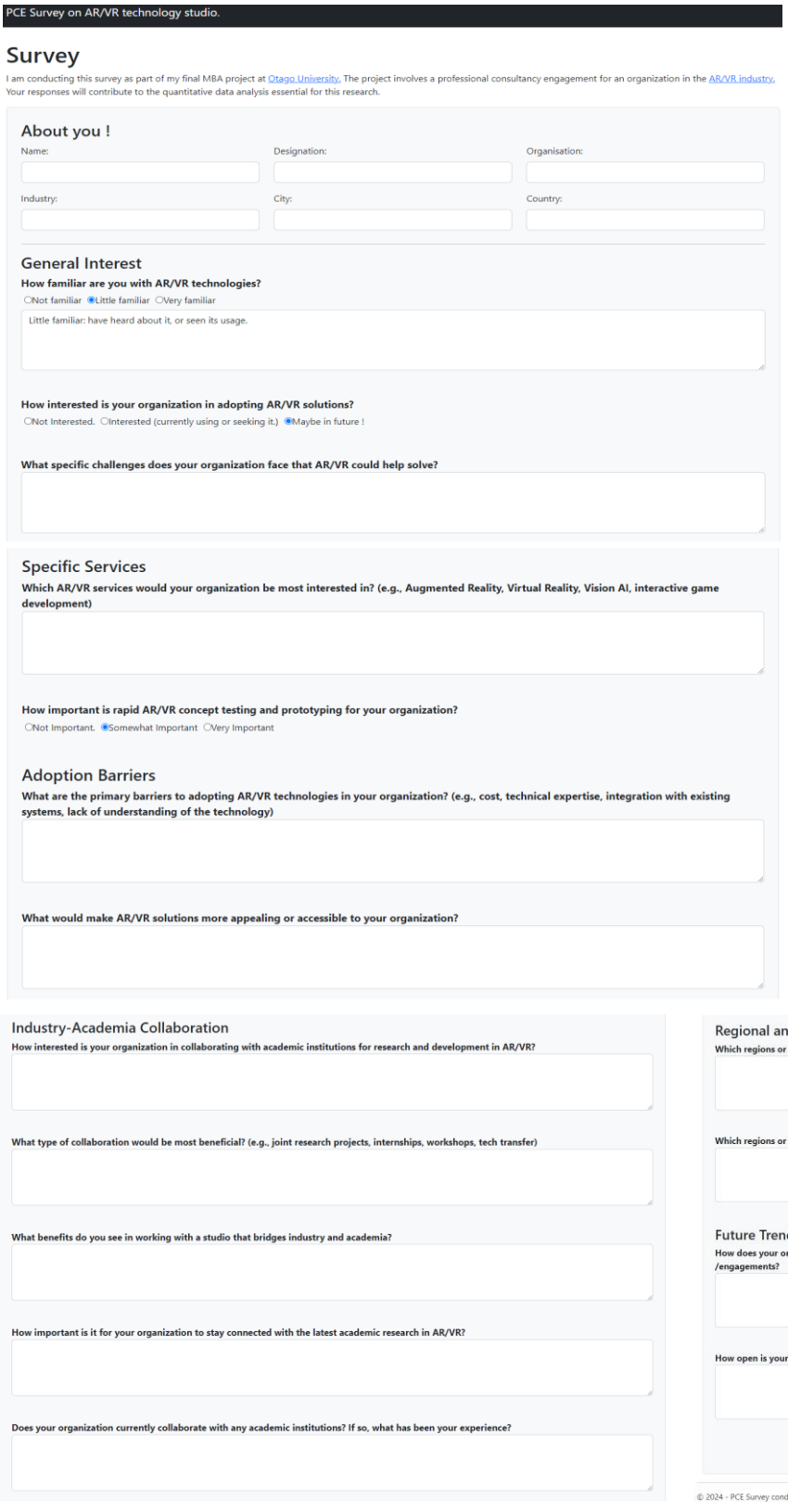
Appendix 1.3 – Porter's 5 Forces

Appendix 1.4 – Summary of VRIO for JIX

JIX Resource / Capability	V Valuable	R Rare	I Imitability	O Organised	Inference
Technological Expertise in AR/VR & AI	YES	Yes	No	Partially	Temporary competitive advantage
Custom, Client-Focused Solutions	Yes	Yes	No	Partially	Temporary competitive advantage
Research-Industry Collaboration	Yes	Yes	No	Yes	Sustainable competitive advantage
State-of-the-Art Lab Facilities	Yes	Yes	No	Yes	Sustainable competitive advantage
Positive Client Feedback and Reputation	Yes	No	Yes	Yes	Temporary competitive advantage
Underdeveloped Marketing Strategy	No	No	Yes	No	Competitive parity



Appendix 1.5 – Survey Questionnaire



PCE Survey on AR/VR technology studio.

Survey

I am conducting this survey as part of my final MBA project at Otago University. The project involves a professional consultancy engagement for an organization in the AR/VR industry. Your responses will contribute to the quantitative data analysis essential for this research.

About you !

Name: | Designation: | Organisation:

Industry: | City: | Country:

General Interest

How familiar are you with AR/VR technologies?

○Not familiar ◉Little familiar ○Very familiar

Little familiar: have heard about it, or seen its usage.

How interested is your organization in adopting AR/VR solutions?

○Not Interested. ○Interested (currently using or seeking it.) ◉Maybe in future !

What specific challenges does your organization face that AR/VR could help solve?

Specific Services

Which AR/VR services would your organization be most interested in? (e.g., Augmented Reality, Virtual Reality, Vision AI, interactive game development)

How important is rapid AR/VR concept testing and prototyping for your organization?

○Not Important. ◉Somewhat Important ○Very Important

Adoption Barriers

What are the primary barriers to adopting AR/VR technologies in your organization? (e.g., cost, technical expertise, integration with existing systems, lack of understanding of the technology)

What would make AR/VR solutions more appealing or accessible to your organization?

Industry-Academia Collaboration

How interested is your organization in collaborating with academic institutions for research and development in AR/VR?

What type of collaboration would be most beneficial? (e.g., joint research projects, internships, workshops, tech transfer)

What benefits do you see in working with a studio that bridges industry and academia?

How important is it for your organization to stay connected with the latest academic research in AR/VR?

Does your organization currently collaborate with any academic institutions? If so, what has been your experience?

Regional analysis

Which regions or countries do you think are dominating in AR/VR services landscape.?

Which regions or countries do you think are full of opportunities in AR/VR services landscape.

Future Trends

How does your organization prefer to engage with technology providers—through standard offerings or tailored solutions or joint projects /engagements?

How open is your organization to forming long-term partnerships with a global AR/VR studio?

Submit Survey

© 2024 - PCE Survey conducted by Dawood Ali.

Appendix 1.6 – Survey Result Summary

Participant Population: Around 100 candidates
Participant Countries: Australia, New Zealand, Pakistan, Philippines
Participant Industries: Construction, ICT, Education, Engineering, Food Service & Manufacturing, Health, Human Resources, Healthcare & Professional Services

Survey Outcome Summary

Survey Category	Key Findings	Challenges Identified	Opportunities
Familiarity with AR/VR	Most respondents have limited familiarity; few are very familiar.	Lack of awareness and hands-on experience.	Educating clients on AR/VR use cases and potential applications.
Interest in Adopting AR/VR	Interest levels vary; some are keen, while others are hesitant or uncertain.	Lack of understanding of potential benefits; high initial costs.	Potential to offer affordable, entry-level solutions to spark interest.
Challenges Facing AR/VR Adoption	Cost and lack of technical expertise are the biggest barriers.	Integration with current systems, market uptake, andunderstanding AR/VR's value.	Offer accessible solutions, training, and demonstrate clear ROI.
Interest in AR/VR-Academia Collaboration	Mixed responses: tech and education sectors show the most interest.	Many organizations are unsure how academic collaborations would benefit them.	Promote partnerships as a way to access cutting-edge innovation and research.
Importance of Rapid Prototyping	Opinions are divided, especially across industries.	Some don't see it as a current priority.	Highlight the value of rapid prototyping in reducing development risks and accelerating innovation.
Primary Barriers to Adoption	High costs and lack of technical expertise.	Cost, integration challenges, and lack of demand from customers.	Address costs and technical support early on to ease adoption.
Regions Dominating AR/VR	USA, China, and Japan are seen as leaders.	Other regions feel left behind in AR/VR development and implementation.	Explore untapped markets in the Asia-Pacific and other underrepresented regions.
Preferred Engagement Models	Some prefer tailored solutions; others want more standard offerings for now	Unfamiliarity with tailored solutions; cost of customization.	Offer a combination of standard offerings and customizable services to attract different segments.
Openness to Long-Term Partnerships	Responses vary; cautious but interested in potential benefits.	Unclear cost-benefit analysis; lack of understanding of long-term impact.	Showcase long-term partnership benefits with clear ROI and technical assistance.
Benefits of Industry-Academia Partnerships	Seen as valuable in sectors like education and healthcare.	Some sectors don't fully understand the value of academic collaboration.	Highlight how academic partnerships lead to innovation and practical research that benefits industry.

Appendix 1.7 – Interview with Industry Expert

Interviewee: Dr Humayun Khan

Designation: Postdoctoral Research Fellow at VR Evacuation Lab, University of Canterbury NZ

Doctor Humayun is a passionate researcher in human interface technology, with a strong focus on utilizing multisensory virtual reality (VR) to study human behaviour and pedestrian dynamics during fire emergencies, particularly in building fires. Their work provides critical insights that contribute to improving building designs and optimizing evacuation procedures, ultimately enhancing safety and saving lives. Additionally, Humayun is dedicated to developing cutting-edge tools that enable firefighters to train effectively for rare, high-risk scenarios, empowering them to face real-world challenges with greater confidence. Through their research, Humayun aims to harness technology to improve safety and preparedness in emergency situations.

Profile: https://www.linkedin.com/in/humayun-k/

Q1. Can you briefly explain the AR/VR industry in the context of, where we were in past 5-10 years, where are we now and where we will be in next 5-10 years?
Answer: AR/VR technologies originated in the 1960s but remained confined to labs for many years due to several limitations, primarily a lack of processing power and insufficient content creation tools. However, in the last decade, a robust ecosystem for VR applications has emerged, allowing for practical use cases, such as VR-based training and testing environments, like evacuation simulations during real fires. We now have applications that are driving the industry forward.
Currently, one of the main challenges is the limited duration of VR use due to the strain it places on users, such as simulator sickness or nausea. Issues like locomotion also remain problematic, as users often find moving within virtual environments challenging.

Looking ahead, we expect significant advancements in three key domains: artificial intelligence (AI) interactions, locomotion, and haptics. The future of AR/VR will incorporate multi-sensory elements—such as wind, smell, and heat—that will enhance the immersion of mainstream applications. Improved learning experiences through VR are also expected to become more accessible and widely adopted in the coming years.

Q2. Among following industries, Healthcare, Education & Training, Retail & Ecommerce, Manufacturing, and industry 4.0, Real estate, Automotive, Tourism & Hospitality, military and defence, marketing, and advertising, what industries do you think have high growth and easy win options for companies who are operating in AR/VR services?
Answer: Industries with substantial financial resources and surplus capital are the most attractive for AR/VR companies. For example, the healthcare sector, which operates in a relatively oligopolistic market, offers promising use cases for AR/VR technologies. The entertainment industry, particularly gaming, is another area of significant growth. Additionally, industries catering to aging populations, such as aged care facilities and retirement villages, are expected to present high-growth opportunities soon. From my observations, the largest and most promising sectors include Military and Defence training, as well as firefighter training, which are gaining considerable attention. For instance, an Australian firm, XVR Simulation (https://www.xvrsim.com), is already delivering innovative solutions in this area.
While the education sector theoretically offers vast potential due to the wide range of applicable use cases, its growth is hampered by funding limitations. As a result, the sector lags others, leaving a significant gap that could be addressed in the future.

Q3. What are key opportunities that are present for an AR/VR technology lab?
Answer: The primary opportunities for AR/VR technology labs lie in the advancements that have made application development more accessible. Today, a single developer can create a complete application due to the availability of both software and hardware resources. This has led to increased productivity, allowing labs to achieve more with fewer resources.
Economically, it is now feasible for labs to operate without the need for a highly specialized and diverse workforce, as individuals can handle multiple tasks efficiently. Additionally, for research labs, the integration of technologies like microcontrollers and Arduino with AR/VR solutions has become significantly easier. This allows for enhanced experimentation and R&D, enabling labs to derive valuable insights through more advanced and integrated experimentation.

Q4. What are key Challenges that are present for AR/VR technology labs?
Answer: One of the primary challenges for AR/VR technology labs is public awareness—AR/VR remains a novel concept and has not yet fully entered the mainstream. Many AR/VR training applications are still in the experimental phase, with few fully established real-world applications.
A significant hurdle is the lack of standardized protocols and practices, which makes developing solutions in a consistent, unified way across the industry difficult. For example, Oculus cannot be used with Sony PlayStation, and the Vision Pro is limited to the Apple ecosystem. Hardware manufacturers often restrict their offerings to their own software ecosystems, further complicating interoperability.

On the consumer side, the excessive cost of hardware like the Vision Pro makes bulk purchases and widespread adoption challenging. Additionally, content creation is limited due to a shortage of VR content developers, and there is also a general lack of skilled professionals in the AR/VR space. These factors contribute to the slower growth and development of the industry.

Q5. What do you think about risk and hazards of AR/VR solutions?
Answer: AR/VR solutions come with several risks and hazards. One major concern is the occurrence of false positives, where the technology may present solutions that appear effective but are not practical or fully functional in real-world applications. Additionally, the addictive nature of VR technology poses a risk, as it has a stronger impact on users' senses compared to traditional media, potentially leading to adverse effects with long-term use.
There are also physical risks, such as tripping hazards due to the use of headsets, which can lead to collisions or accidents in physical environments. These risks emphasize the need for careful consideration of both the psychological and physical impacts of AR/VR technologies on users.

Q6. What are the Implications of AI on AR/VR?
Answer: AI has significant implications for the AR/VR industry, particularly using generative AI for content creation, which allows for easier and more efficient production of immersive experiences. The integration of AI with AR/VR solutions opens new avenues for innovation, enabling the development of interactive and intelligent environments.
For example, the fusion of AR and VR technologies with AI, as demonstrated in this video (https://www.youtube.com/watch?v=E-m_FnFnh0w), allows users to interact with historical figures like Nikola Tesla, asking questions and engaging in dynamic, AI-driven conversations. This kind of integration offers an exciting potential for educational applications, transforming learning into more immersive and interactive experiences. The combination of AI with AR/VR promises to revolutionize how content is created, consumed, and experienced across various industries.

Q7. What advise do you offer, for JIX to raise to strengthen its current market presence and acquire more growth over the coming period?
Answer: To strengthen its market presence and foster growth, JIX should consider developing a specialized core product that sets them apart in the industry. For instance, Flame Systems (https://flaimsystems.com) has established itself with a unique product focused on fire haptics. Similarly, JIX could benefit from creating its own distinctive core product that aligns with their expertise and market needs. While continuing to work on client projects and developing intellectual property (IP) is important, focusing on the development of a proprietary product will provide JIX with a significant competitive advantage and enhance their recognition in the industry.

---------- End of interview ----------

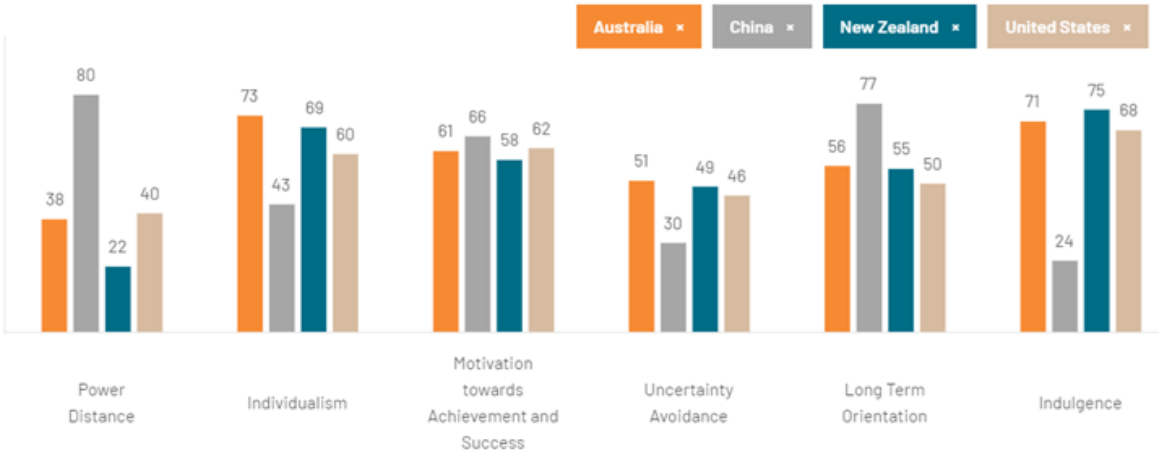
Appendix 1.8 – Cage Analysis

Summary of Cage Distances for USA/Canada, Australia, China, Japan, Singapore and Europe

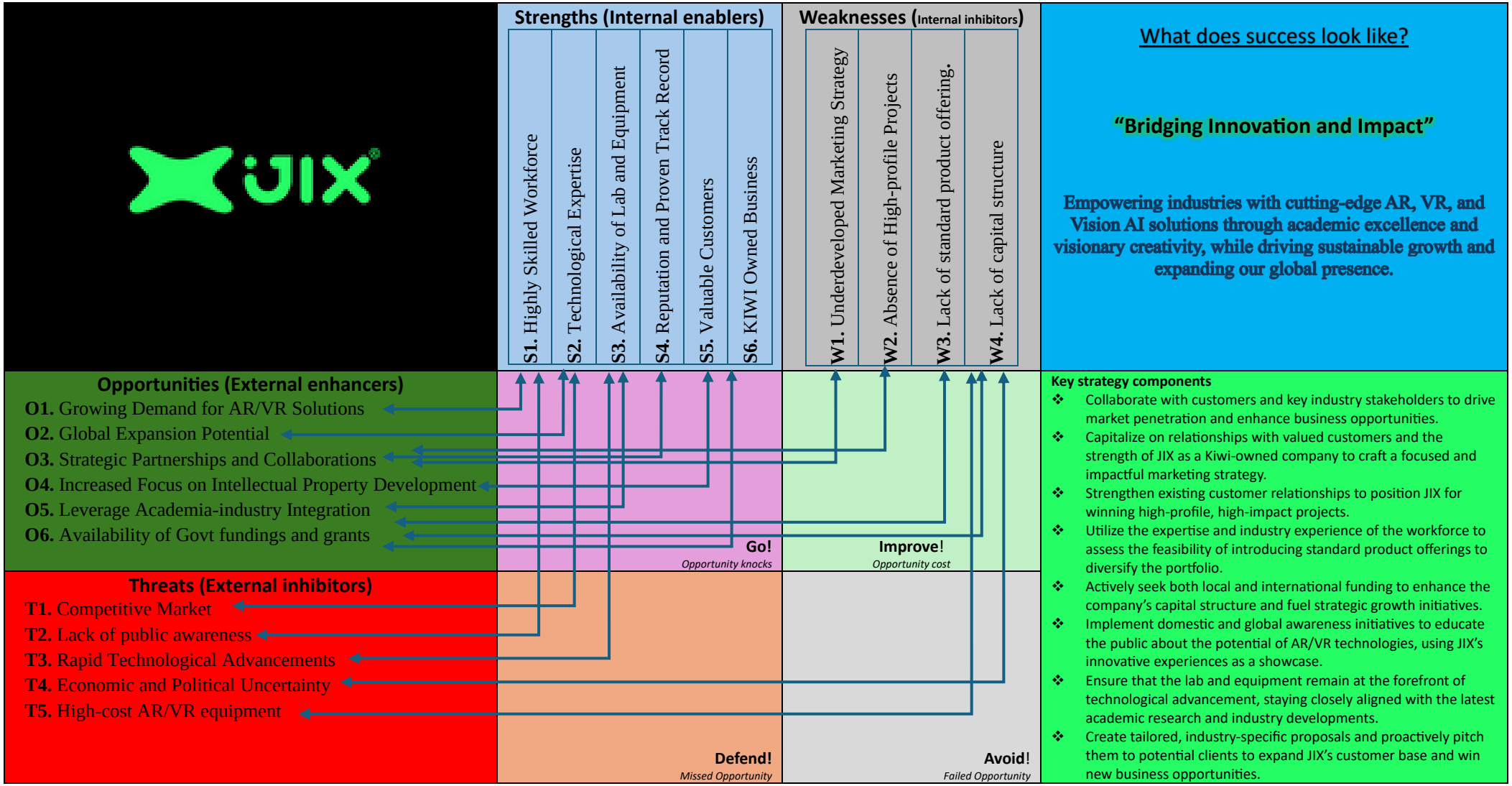
DIMENSION	CULTURAL DISTANCE	ADMINISTRATIVE DISTANCE	GEOGRAPHIC DISTANCE	ECONOMIC DISTANCE
USA & Canada	High acceptance of technology; innovative AR/VR experiences preferred; multicultural landscape.	Straightforward regulations; varying state laws pose challenges; added privacy laws in Canada.	Close proximity; similar time zones facilitate collaboration; logistics easier.	Largest AR/VR market; high purchasing power; significant funding opportunities.
Australia	Familiarity with AR/VR; emphasis on experiential content.	Favorable tech regulations; specific local requirements.	Geographic distance but shared cultural ties; potential time zone challenges.	Strong economy; increasing investments in technology; high consumer purchasing power.
China	Rapid tech adoption; unique cultural preferences; state regulation.	Significant hurdles; strict data and content regulations.	Significant distance; local partnerships may be required.	Rapidly growing market; potential high returns but significant competition.
Japan	Appreciation for technology; unique local tastes in aesthetics.	Comprehensive legal framework; strong IP protections, potential language barriers.	Considerable distance; potential for technological collaboration.	Robust economy; high interest but competitive market.
Singapore	Strong tech adoption; diverse market; receptive to innovation.	Pro-business regulations; government support for tech innovation.	Closer ties; tech-savvy environment facilitates collaboration.	Strong economy; good access to funding for tech startups.
Europe	Diverse cultural landscape; varying acceptance and data privacy concerns.	Complex regulations; GDPR compliance critical across countries.	Diverse landscapes; logistics can be complex across multiple countries.	Varying economic conditions; differing levels of investment and interest in AR/VR.

Implications & Considerations for JIX

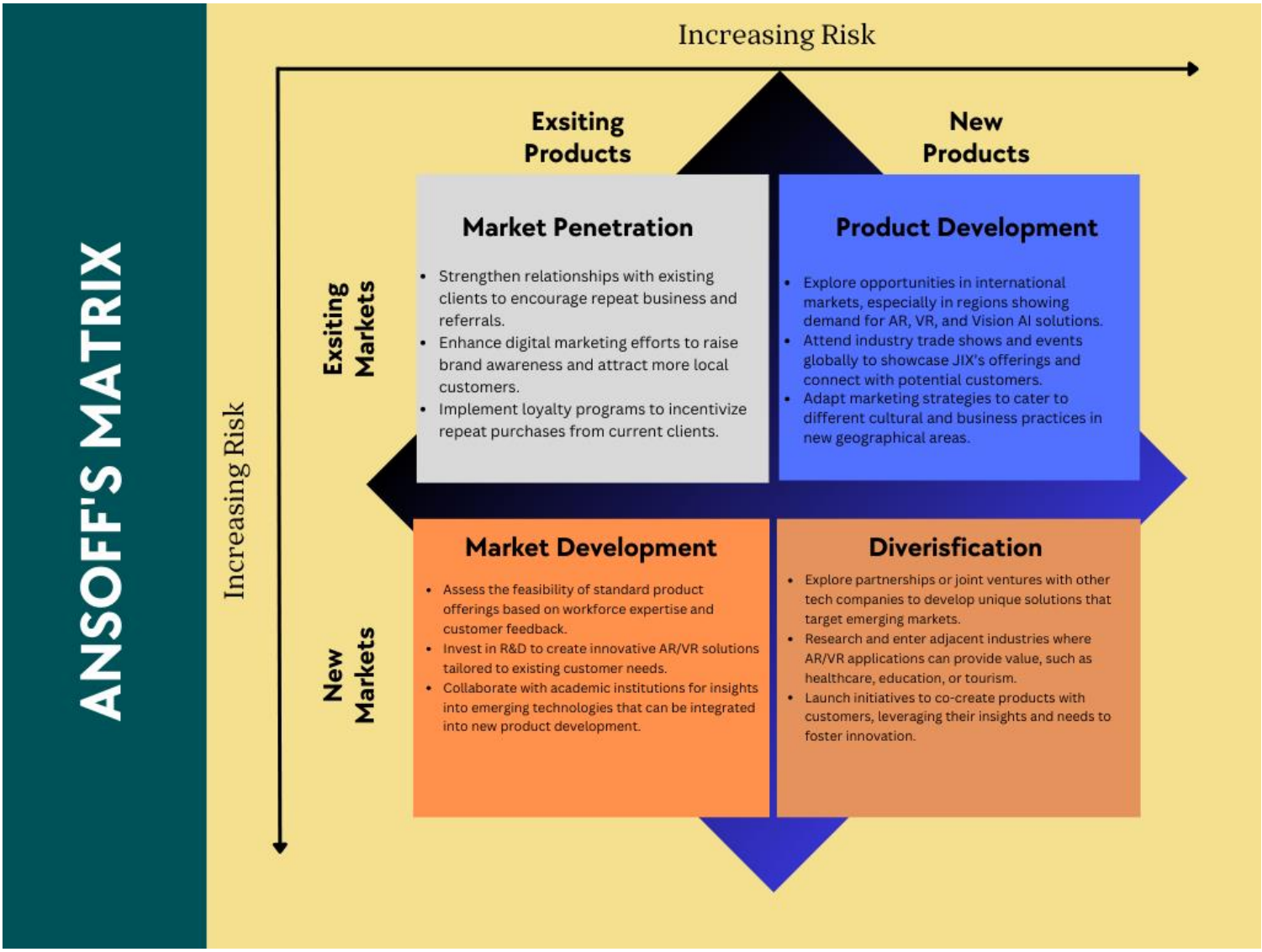
Dimension	Key Considerations
Cultural	JIX may face cultural differences in user experience design, storytelling, and technology adoption when entering global markets. Localization of content and adaptation to different consumer behaviours are key to success in diverse markets.
Administrative	Regulatory hurdles, particularly around data privacy and IP protection, could pose challenges in new markets. JIX will need to navigate complex administrative environments like the EU and adapt to differing levels of government support for tech sectors.
Geographic	New Zealand's geographic isolation creates logistical challenges, but digital delivery of services mitigates this to some extent. Remote work and virtual collaboration tools are essential to manage global operations effectively.
Economic	Expanding into larger, wealthier markets offers significant growth potential. However, JIX will need to compete with firms in lower-cost regions and adapt its pricing strategy based on regional economic conditions.



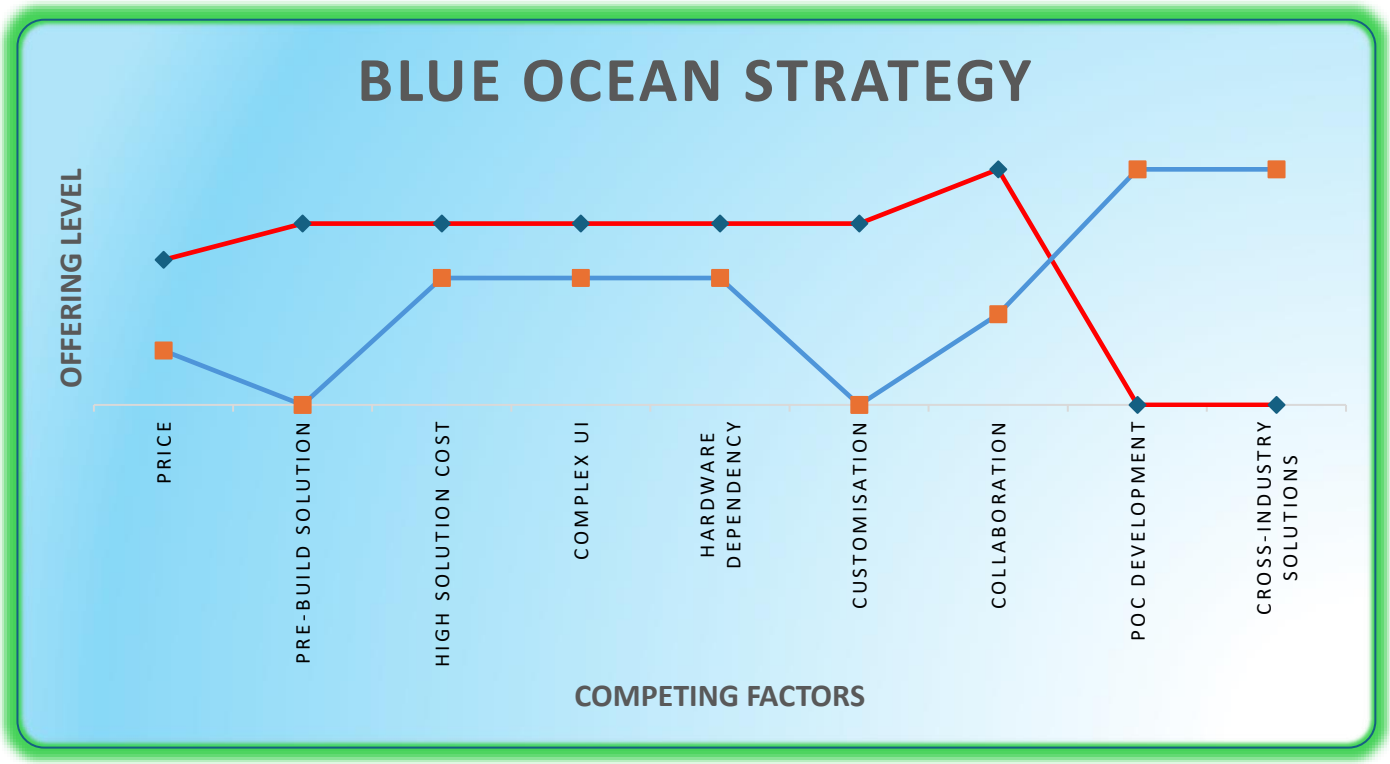
Appendix 2.1 – SWOT Analysis



Appendix 2.2 – ANSOFF Matrix



Appendix 3.1 – Proposed Blue Ocean Strategy



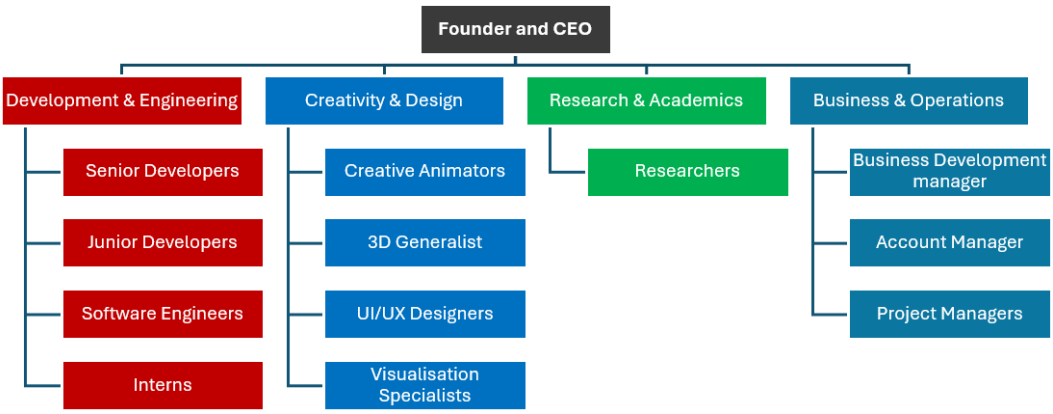
Current situation			
Value Factors	**Industry standard**	**JIX**	**Action**
Price	8	3	Retain
Pre-Build Solution	10	0	**Raise**
High Solution Cost	10	7	**Eliminate**
Complex UI	10	7	**Reduce**
Hardware Dependency	10	7	**Reduce**
Customisation	10	0	**Raise**
Collaboration	13	5	Retain
POC Development	0	13	**Create**
Cross-Industry solutions	0	13	**Create**

Appendix 4.1 – Proposed Strategy

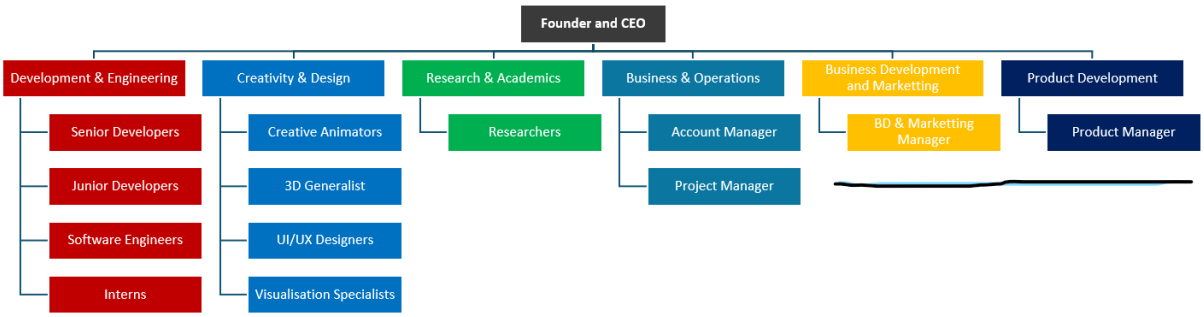
OUR STRATEGY				
UIX	**WHY** we are here	**"Bridging Innovation and Impact"**		
	WHAT we want to be known for	Empowering industries with cutting-edge AR, VR, and Vision AI solutions through academic excellence and visionary creativity.		
	WHAT makes us different	Care for our customers	State of art Tech Studio & Lab	Academic & Industry research
	WHAT makes us stronger	Positive Client feedback ★★★	Highly skilled & Professional team	New Zealand based brand
	HOW we behave	Helpful	Ethical	Leading Change	Performing	Simple
	HOW we measure success	Among top 5 AR/VR labs in NZ	Global Customer growth	Strong financial performance

Appendix 4.2 – Proposed Organisation restructure

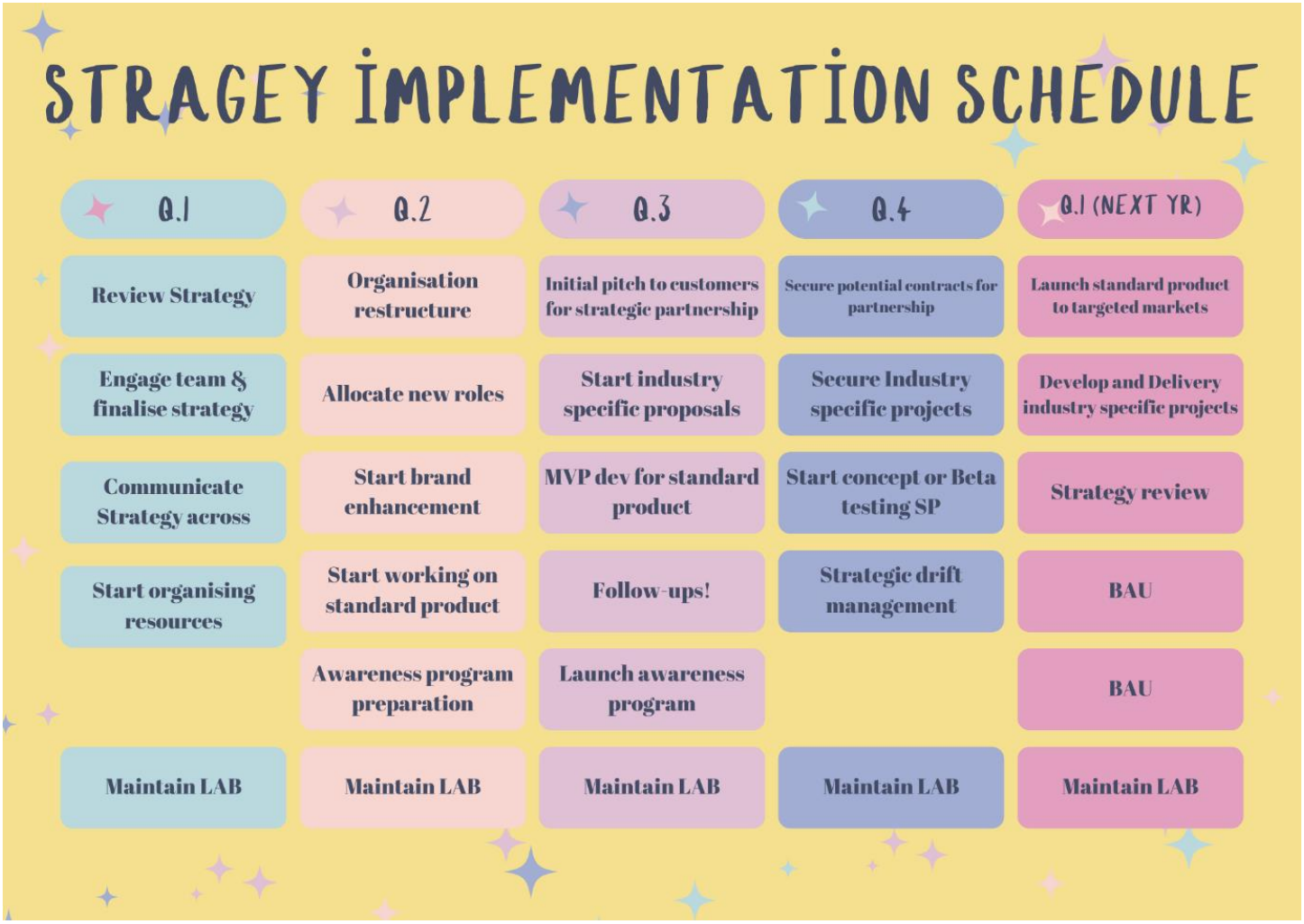
Current



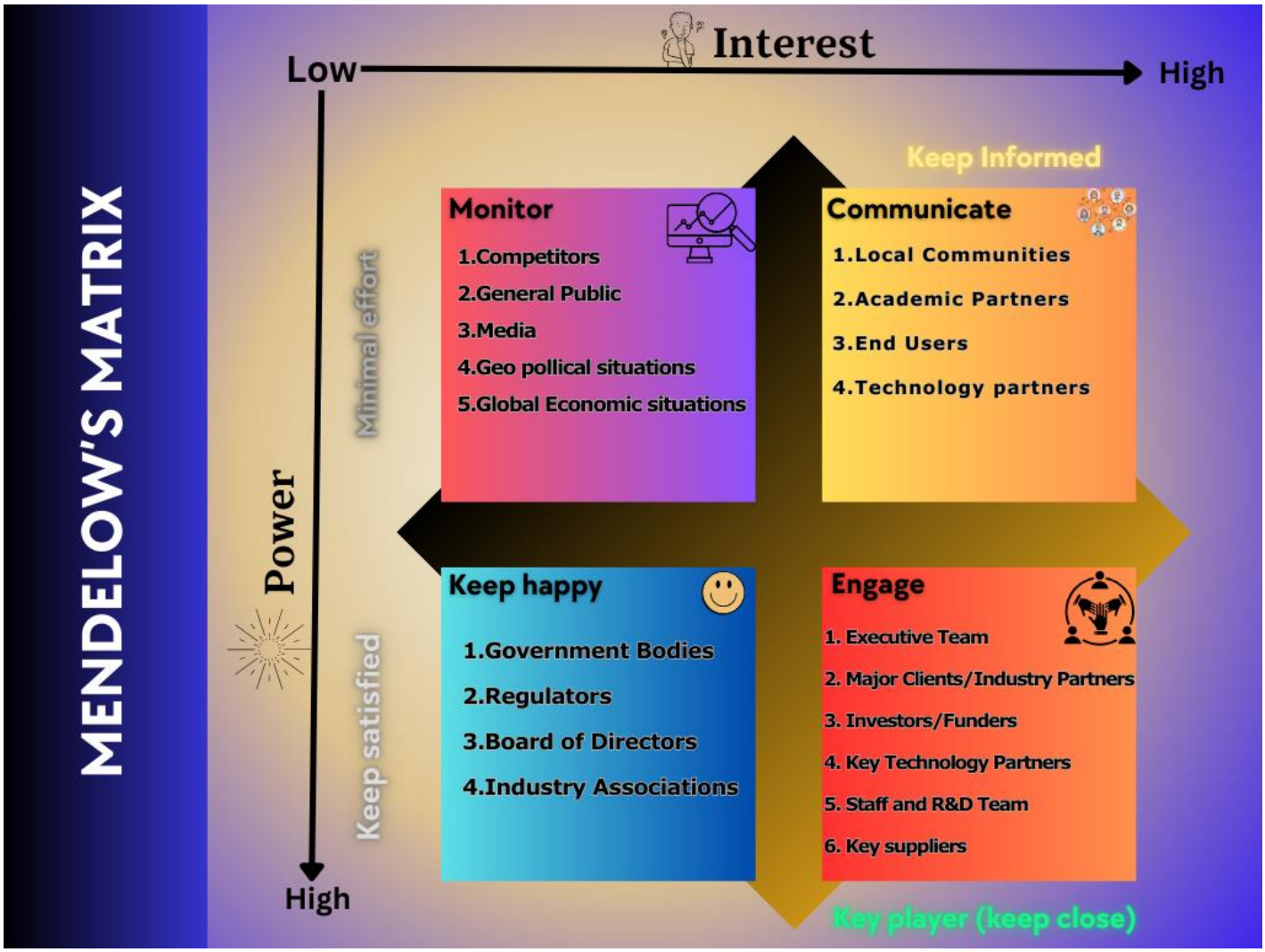
Proposed

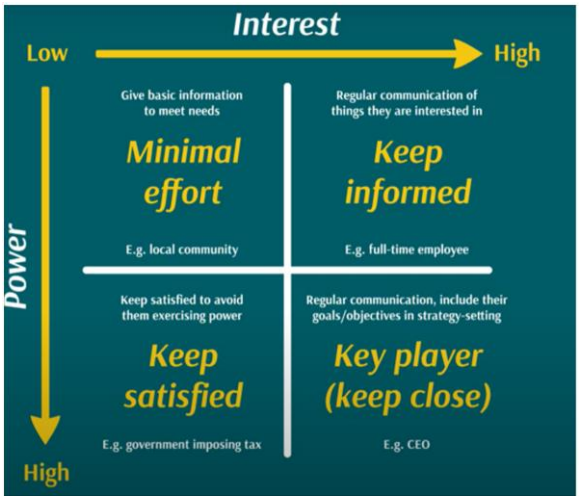


Appendix 4.3 – Strategy implementation schedule



Appendix 4.4 – Mendelow's Matrix





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Glossary

Augmented Reality (AR): Augmented Reality (AR) is a technology that overlays digital information—such as images, sounds, and other data—onto the real-world environment in real-time. Unlike Virtual Reality (VR), which creates an entirely virtual world, AR enhances the user's perception of the physical world by adding interactive digital elements, often through devices like smartphones, tablets, or AR glasses. This technology is commonly used in gaming, education, retail, and industrial training, providing an immersive and interactive experience that blends the digital and physical worlds.

Virtual Reality (VR): Virtual Reality (VR) is a technology that immerses users in a completely digital environment, simulating a different reality or world. Unlike AR, which overlays digital elements onto the real world, VR creates an entirely separate virtual space that users can interact with through specialized equipment like VR headsets, gloves, or controllers. Common applications include gaming, training simulations, and education, providing full immersion in a virtual environment.

Types of VR:

- **Non-immersive VR:** Accessed through a screen, with limited interaction via keyboard, mouse, or other input devices (e.g., video games).
- **Semi-immersive VR:** Offers a partial VR experience, focusing on 3D visuals (e.g., flight simulators).
- **Fully immersive VR:** Provides the most complete virtual experience with multisensory input like sound, sight, and sometimes touch (e.g., advanced gaming and healthcare applications).
- **Collaborative VR:** Allows multiple users to interact within a shared virtual environment, communicating through headsets and microphones.
- **Mixed Reality:** Blends virtual and real-world elements, often considered a separate category from AR and VR, but closely related under the umbrella of extended reality (XR).
- **Vision AI (Visual Artificial Intelligence):** Vision AI refers to the application of artificial intelligence to interpret and analyse visual data, such as images and videos. This technology encompasses computer vision, object detection, facial recognition, and more, enabling machines to understand visual inputs and make decisions. Common applications include autonomous vehicles, medical imaging, security systems, and augmented reality.

Computer Vision: A field of artificial intelligence that enables computers to interpret and derive meaningful information from visual inputs like images or videos. It involves technologies such as image recognition and machine learning to help machines "see" and make decisions based on visual data.

Immersive: An experience that fully engages one's senses & attention, making them feel as though they are deeply involved or present in an environment or activity. In technology, immersive experiences typically involve VR, AR, or high-fidelity audio and visuals to create realistic and believable environments that blur the line b/w the virtual & the real world.

Interactive Game Development: The process of designing and programming video games where players interact with and influence the game environment and storyline. It requires a combination of creative design, technical programming, and player psychology to create engaging and dynamic gaming experiences.

Proof of Concept (POC): A preliminary demonstration or model used to validate that a concept, idea, or theory can be practically achieved. POCs are often employed to test the feasibility and potential application of new technologies or products.

Prototypes: Early models of a product created to test functionality and design before full-scale development. Prototypes help refine the concept and address potential issues early in the development process.

Feasibility Studies: An analysis conducted to evaluate the practicality and viability of a proposed project, idea, or solution. This includes assessing technical, financial, and operational aspects to determine whether a project is worth pursuing.

Bespoke Solutions: Custom-made services or products specifically tailored to meet the individual needs of a client, as opposed to standardized or mass-produced offerings.

Blue Ocean Strategy: A business strategy focused on creating new market space by innovating and differentiating, rather than competing in an overcrowded market. It encourages organizations to seek untapped markets or create unique offerings that set them apart from competitors.

CAGE Analysis: A framework used to assess Cultural, Administrative, Geographic, and Economic distances between countries or regions, helping organizations evaluate the opportunities and risks associated with global expansion.

ANSOFF Matrix: A strategic planning tool used to explore growth strategies by analysing market penetration, product development, market development, and diversification opportunities.

Strategic Drift: Occurs when a company's strategy gradually becomes misaligned with the external environment due to a failure to respond to significant market or technological changes.

Intellectual Property (IP): Creations of the mind, such as inventions, artistic works, and designs, which are legally protected to prevent unauthorized use or reproduction by others.

ESTEMPLE Analysis: A framework for analysing external factors that affect a business, including Economic, Social, Technological, Ethical, Media, Political, Legal, and Environmental factors.

VRIO Analysis: A tool used to evaluate a company's resources and capabilities to determine whether they offer a competitive advantage, based on their Value, Rarity, Imitability, and Organization.

Head-mounted Displays (HMD): Devices worn on the head that display virtual images or information in front of the user's eyes. HMDs are commonly used in AR/VR systems to create immersive experiences.

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Finally, I hope this report provides a comprehensive understanding of the AR/VR industry and serves as a strategic guide for JIX to set the right course towards achieving their broader objectives.

========== END OF REPORT ==========