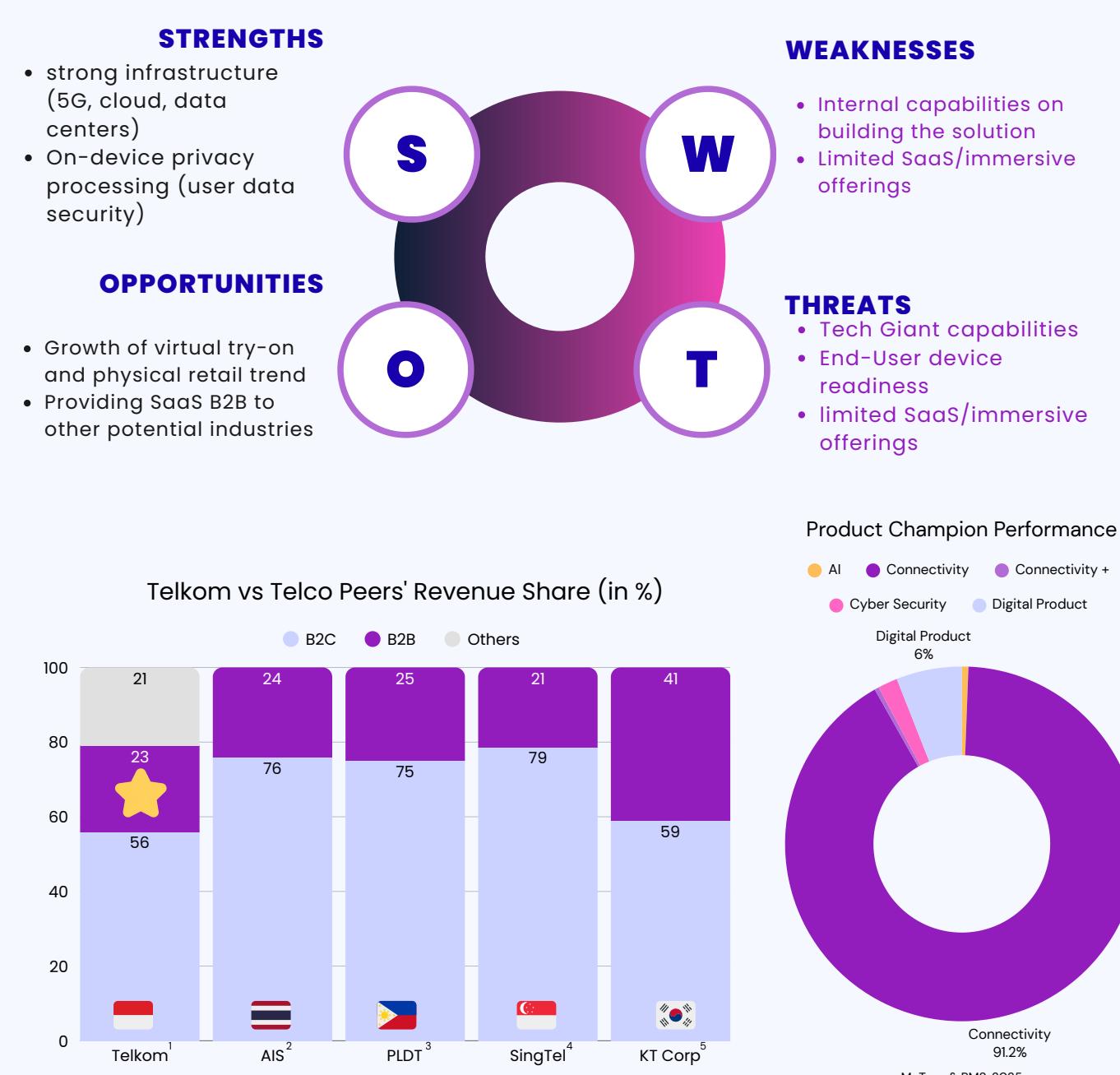


AUGMENTED REALITY (AR) AS SOFTWARE AS SERVICE IN FASHION RETAIL INDUSTRY

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BACKGROUND

Telkom Indonesia, the nation's largest digital telecommunications company, is accelerating its transformation toward becoming a digital services leader. One emerging opportunity is integrating Augmented Reality (AR) as a Software as a Service (SaaS) solution for the fashion retail industry. Indonesia's Augmented and Virtual Reality (AR/VR) market is projected to grow from USD 60 million in 2017 to over USD 760 million by 2030, with AR software representing the largest and fastest-growing category, approximately doubling every three years. This momentum highlights vast untapped potential for industry-specific AR platforms, particularly in fashion and personal care. Furthermore, Indonesia's AR user base is expected to reach 50 percent by 2025 before growth slows after 2026, marking a pivotal window for local innovation. Alongside the country's USD 15 billion fashion e-commerce market and the rise of low or no-code (LNCD) tools, these factors create favorable conditions for scalable and accessible AR adoption among small and medium enterprises (SMEs).



RESEARCH METHOD

This study adopts a quantitative descriptive approach using business radar analysis to explore Telkom's strategic positioning in emerging B2B digital markets. Data were derived from internal Telkom sources and secondary references such as ECDB (2025), Tidio (2023), Nam (2023), and Zhaohang (2021). The analysis benchmarks Telkom's innovation readiness and revenue structure against regional ICT peers including Singtel, PLDT, KT, and AIS that have begun diversifying into enterprise-focused digital services such as cloud, AI, and immersive technology. A business model canvas was also developed to assess the feasibility and scalability of Telkom's proposed AR Builder SaaS.

KEY INSIGHT

Internal data show that over 90 percent of Telkom's B2B revenue still relies on connectivity. In contrast, its regional peers are actively capturing enterprise-driven digital value. Without timely diversification into AR-based SaaS and B2B innovation, Telkom risks losing strategic ground. Leveraging its infrastructure, data assets, and Antares IoT ecosystem, Telkom can bridge this gap through a scalable AR Builder SaaS platform.

FINDINGS

The proposed AR Builder SaaS enables fashion brands to create AI-personalized, no-code virtual try-ons integrated with Shopee, Tokopedia, and TikTok Shop. The solution enhances engagement, increases conversion, and reduces product return rates. For Telkom, it introduces recurring revenue through subscriptions and managed services, supporting its transition from connectivity provider to digital enabler. This initiative accelerates Indonesia's digital transformation, supports SME empowerment, and builds a new creative technology ecosystem. It strengthens Telkom's leadership while fostering local innovation in the growing AR economy.

KEY IMPACT

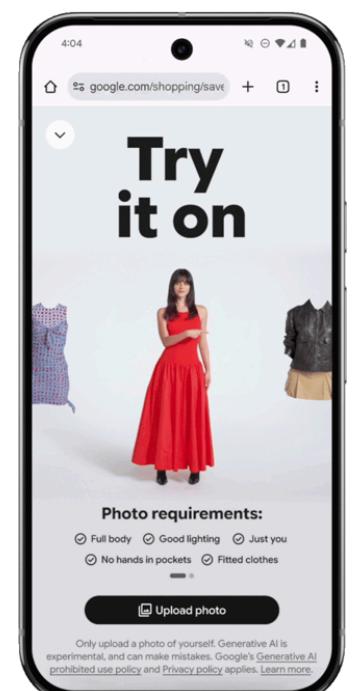
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LIMITATIONS

The study focuses on fashion retail and assumes sufficient technological infrastructure. Future research should examine cross-sector scalability and adoption challenges in lower-connectivity regions.

ORIGINALITY

This research pioneers the concept of AR as SaaS tailored for Indonesia's fashion market, combining AR, AI, and LNCD technologies to position Telkom as a catalyst for enterprise digital transformation in Southeast Asia.



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