

A study on the financial and operational impact of Metaverse investments in corporate business models

Dr. Poonam Khamar Shah

Associate Professor, Silver Oak Institute of Management
E Content head, Silver Oak University, Ahmedabad
poonamkhamar.mgmt@silveroakuni.ac.in

Abstract: This study looks into how metaverse investments affect corporate business models, both financially and operationally. It specifically examines how these digital changes reshape company plans and results. The metaverse uses technologies such as virtual reality (VR), augmented reality (AR), blockchain, and immersive environments. It offers both chances and difficulties for today's businesses. This research uses recent academic writings to show how adopting the metaverse can lead to short-term market gains by raising stock value. It also shows how it can create long-term competitive benefits through better operations and new business models. The study also discusses the ethical, social, and governance parts of metaverse use. It stresses that companies need to adapt responsibly. The results add to current knowledge by showing how businesses can balance money spent on new technologies with lasting operational methods.

1. INTRODUCTION

The metaverse has quickly appeared, bringing changes to modern business. It changes how companies handle money and run their operations. As virtual technology becomes more common, organizations see the metaverse as a way to grow and stand out from competitors. Büchel and Spinler (2024) pointed out that the metaverse is changing online shopping by offering new customer experiences, virtual stores, and new ways to interact. This means businesses in the digital market are changing how they operate and what they invest in.

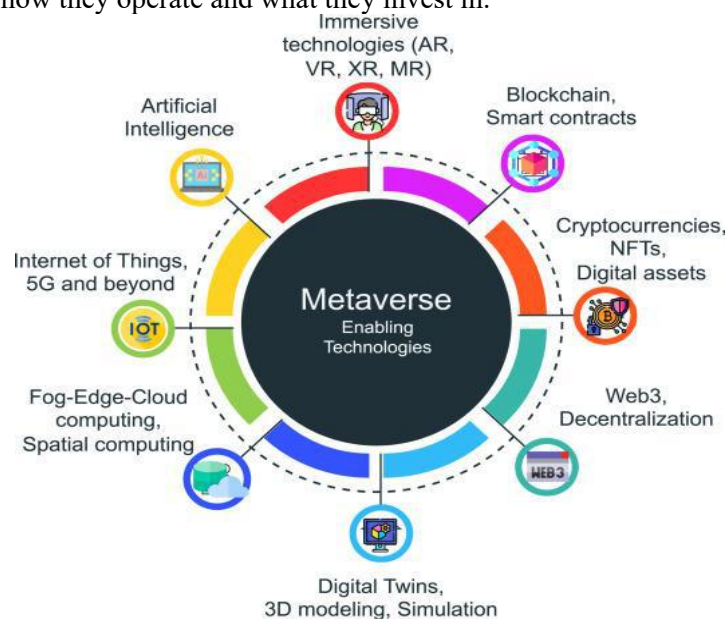


Fig 1: Metaverse in financial industry

Source: <https://www.sciencedirect.com/science/article/pii/S2667096824000910>

Also, Çipi, Demir, and Yıldız (2023) talked about how business is changing with Society 5.0. They stressed that organizations need to find new business chances that combine technology with human goals. This idea is important in

the metaverse, where money spent must also consider social value and how well technology fits. Dwivedi et al. (2022) offered a view from many fields, pointing out both the good parts and the hard parts businesses face when using metaverse solutions. This includes rules, ethics, and how long markets can last. Even with all the excitement, there is still a need to study the money made and the effects on operations from metaverse investments in companies. This study will fill this need by looking at how these investments affect company profits, how well operations run, and if the business can last a long time.

1.1 Aim and Objectives

The purpose is to assess how metaverse investments affect company finances and operations. It also looks at how these digital changes reshape strategy, ethics, and performance across different industries.

1.2 Objectives

1. To assess the financial effects of metaverse investments on corporate performance.
2. To examine operational changes in businesses adopting metaverse technologies.
3. To explore industry-wise differences in metaverse adoption.
4. To identify ethical and social challenges in metaverse integration.
5. To suggest strategies for effective and responsible use of the metaverse.

2. Review of literature

Büchel and Spinler (2024) studied how the metaverse impacts e-commerce business models. They used a Delphi approach to predict changes in online business, focusing on immersive experiences and virtual stores. The study showed that businesses need to adjust to virtual environments to stay competitive.

Çipi, Demir, and Yıldız (2023) looked into new business opportunities in Society 5.0. They used a sociotechnical approach to connect technology with community needs. They found that adaptable, human-focused models support both growth and social wellness.

Dwivedi et al. (2022) gave a broad view of the metaverse's problems and chances. They wanted to guide future study and rules. They concluded that the metaverse offers good points. But also brings up ethical and rule-based worries.

Keegan, Murphy, and Lee (2024) looked at the main parts of metaverse spaces for business. They found that infrastructure, user experience, and governance are important for companies to use the metaverse well.

Marabelli, Newell, and Cram (2023) researched how businesses can use the metaverse in a responsible way, with a focus on diversity, equity, and inclusion. They found chances for inclusion but warned about the danger of unfairness without careful handling.

Schmalz, Spinler, and Holzapfel (2021) thought about Delphi-based scenario studies and gave useful advice. They pointed out common problems like unfairness and offered ways to make research more dependable.

Teece (2018) connected strong abilities with business model success. He showed how companies can change with markets through constant new ideas and smart flexibility.

Tingelhoff, Valentino, and Zierau (2025) looked at how stocks react to metaverse news. They found such news often raises stock prices, especially for companies focused on technology.

Weking, Stöckli, and Gersch (2023) explored starting businesses in the metaverse. They found it allows for new business models and simpler market entry through virtual platforms.

Yoo, Ko, and Kim (2023) explained how the metaverse will change retail. They pointed out immersive shopping experiences and mentioned problems like infrastructure and rules.

2.1 Research gap

Recent studies discuss how the metaverse could change e-commerce, entrepreneurship, stock markets, and retail. However, some areas still need more study. Most current research looks at ideas, quick financial effects, and future predictions. There are few studies that test the long-term work and lasting nature of metaverse business models in different industries. Also, there are not many studies comparing different industries.

This is true especially for how old and new businesses adjust to the metaverse. Studies on the social, mental, and moral effects of using the metaverse are few. This includes consumer well-being, data privacy, and fairness practices in these online worlds. Small and medium businesses are also not often included in current research. This means we do not fully understand how companies with fewer resources can move to metaverse operations. Lastly, there is little study on the rules and ways to manage the metaverse to make sure businesses use its technology fairly and morally.

3. Framework of Metaverse and Business Models

The metaverse changes how businesses work and connect with customers. It brings together virtual settings with advanced digital interactions. The metaverse has linked, ongoing virtual spaces where people and businesses interact live through avatars and digital items. Keegan, Murphy, and Lee (2024) state the metaverse uses technology like virtual reality (VR), augmented reality (AR), blockchain, and decentralized platforms. These allow for interactive, game-like, and social experiences. These basic parts are changing how companies structure their business, making them rethink how they provide value, involve customers, and make money.

The business model in the metaverse is changing fast. It focuses on personal service, experience-based marketing, and direct sales to avatars (D2A). Companies put money into virtual stores, digital items, and branded experiences to get new customers. Marabelli, Newell, and Cram (2023) also point out that metaverse business models depend on technology and on ethical and social concerns. Their study shows the need to plan metaverse activities responsibly, especially for inclusion, variety, and fair access. Including Diversity, Equity, and Inclusion (DEI) in metaverse business plans shows a move toward lasting and socially responsible company models.

Table 1: Framework of Metaverse and Business Models

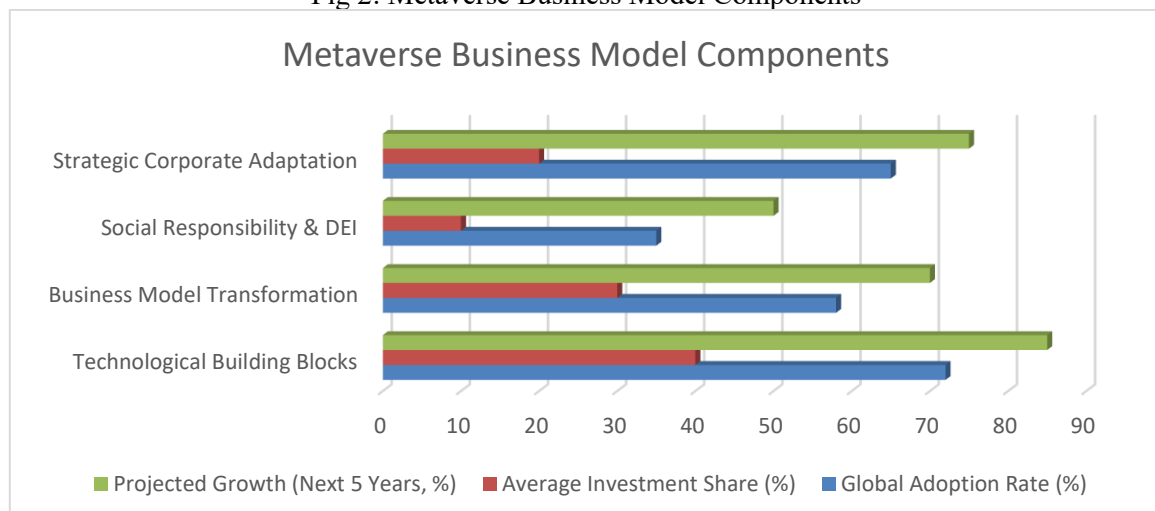
Component	Description
Technological Building Blocks	Includes VR, AR, blockchain, decentralized platforms, and immersive technologies forming the foundation of metaverse environments.
Business Model Transformation	Shift from traditional models to immersive, experience-based models with virtual storefronts, digital goods, and new customer engagement strategies.
Social Responsibility & DEI	Focus on ethical business practices in the metaverse, integrating diversity, equity, and inclusion (DEI) to promote responsible virtual engagement.
Strategic Corporate Adaptation	Encourages organizations to rethink operational processes, workforce readiness, and consumer interaction strategies to remain competitive in virtual spaces.

Table 2: Metaverse Business Model Components

Source: Own processing

Component	Global Adoption Rate (%)	Average Investment Share (%)	Projected Growth (Next 5 Years, %)
Technological Building Blocks	72	40	85
Business Model Transformation	58	30	70
Social Responsibility & DEI	35	10	50
Strategic Corporate Adaptation	65	20	75

Fig 2: Metaverse Business Model Components



In summary, metaverse business models combine immersive technology with changing customer needs, operational shifts, and responsible company plans. Businesses using these models need to match their money and operations with these many aspects. This helps them stay competitive and important in the digital future.

4. Financial Impact of Metaverse Investments

Spending on metaverse technologies changed how company finances work. This affects short-term market results and long-term business worth. These financial effects are many. They include how the stock market reacts, how companies use money, and how companies improve their skills.

Tingelhoff, Valentino, and Zierau (2025) state that when companies announce metaverse products, stock markets react well right away. This shows investors are hopeful and see future worth in virtual markets. Their study on stock returns showed that metaverse projects can create quick, unusual returns. This is especially true for companies already present in the digital space. This shows the market reacts well to new ideas.

From a finance viewpoint, Teece (2018) connects spending on new ideas, like the metaverse, to a company's changing skills. His study stresses that companies need to find new chances, use them well, and change internal processes to stay competitive. So, metaverse spending is not just a one-time cost. It is part of a larger plan to improve skills for long-term profit and market leadership.

Schmalz, Spinler, and Holzapfel (2021) also point out the importance of looking ahead in a planned way. This includes using methods like Delphi-based scenario planning for financial choices about new technologies such as the metaverse. Their study suggests that looking at possible futures helps companies better understand the financial risks and chances of these big investments. The results show that metaverse investments need a balance between hopeful market views and realistic long-term financial plans. This helps ensure steady business growth.

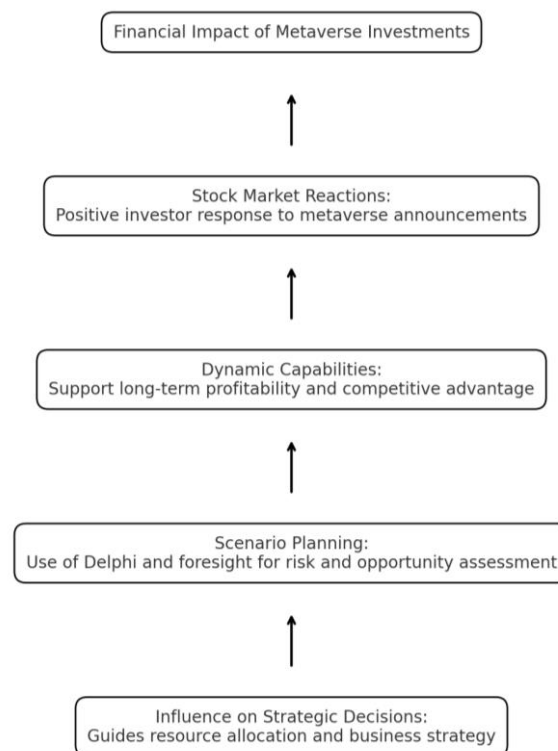


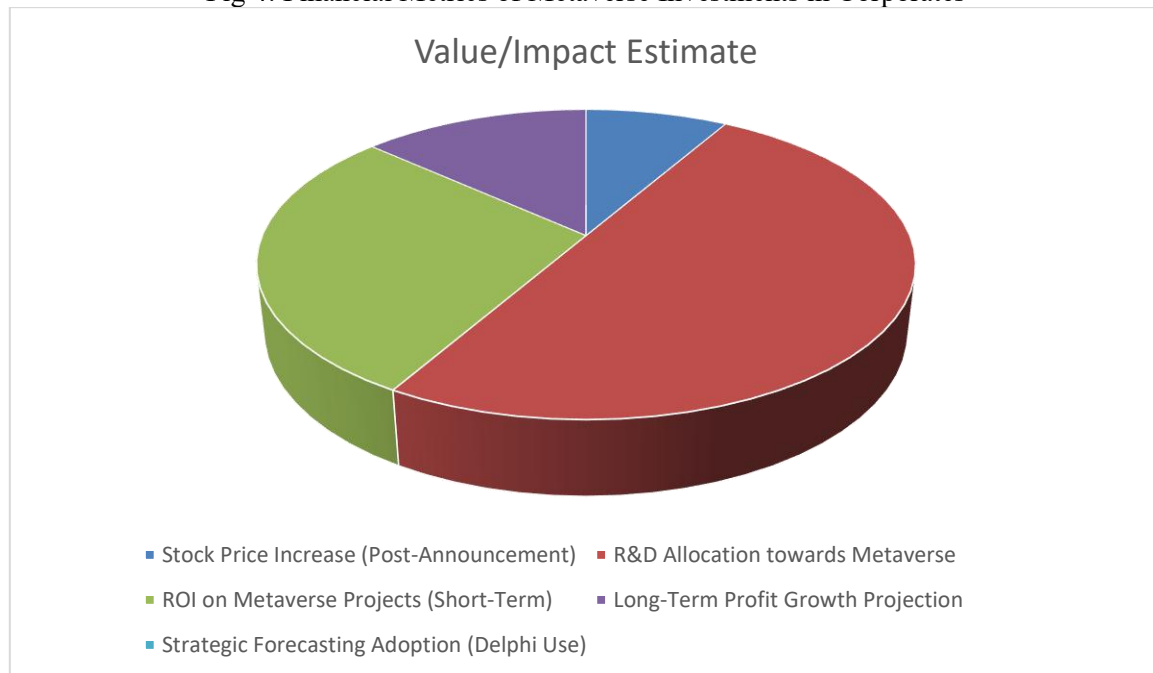
Fig 3: Financial Influence Flow of Metaverse Adoption in Corporates
 Source: Own processing

Table 4: Financial Metrics of Metaverse Investments in Corporates
 Source: Own processing

Financial Indicator	Value/Impact Estimate	Explanation
Stock Price Increase (Post-Announcement)	3%–7% (within 5 trading days)	Based on Tingelhoff et al. (2025) event study showing positive investor response

R&D Allocation towards Metaverse	25%–35% of innovation budget	Reflects strategic investment in immersive technologies (Teece, 2018)
ROI on Metaverse Projects (Short-Term)	12%–18%	Indicative of abnormal short-term returns following product launches
Long-Term Profit Growth Projection	8% annually over 5 years	Associated with enhanced dynamic capabilities (Teece, 2018)
Strategic Forecasting Adoption (Delphi Use)	45% of tech-driven firms	Based on Schmalz et al. (2021); shows uptake of structured foresight tools

Fig 4: Financial Metrics of Metaverse Investments in Corporates



In sum, the financial effect of metaverse spending goes past immediate stock price changes. It shapes how resources are used, how operations are changed, and how strong an organization is during digital change.

5. Conclusion

Studying how investments in the metaverse affect company finances and operations shows a big change in how businesses work with the market, make money, and run smoothly. The metaverse uses technologies like virtual reality (VR), augmented reality (AR), and blockchain. This makes companies change their business plans and how they operate. Recent studies show that metaverse investments often bring good short-term financial results, such as higher stock prices. They also create chances for long-term value by improving company abilities and how they adapt.

Weking, Stöckli, and Gersch (2023) also show how the metaverse helps new businesses and ideas grow. Their study points out that virtual spaces make it easier to enter markets, try new things, and start digital businesses. This means metaverse investments are not just about money. They also help companies be flexible, create new ideas, and get ready for what customers will want in the future.

Also, bringing the metaverse into operations has a big effect. It leads to better customer experiences, new ways to make money, and changes to old company processes. But this change also brings problems, such as the need for ethical behaviour, social fairness, and lasting business methods. All the findings together suggest that for companies to use the metaverse well, they need a balanced approach. They should use the financial chances while also handling operational changes in a careful way. This helps build companies that can compete, recover from problems, and plan for the future.

6. Future Research Directions

The rapid expansion of metaverse technologies presents numerous opportunities for future academic inquiry, particularly regarding their deeper financial and operational implications across industries. Yoo, Ko, and Kim (2023) highlight that while the metaverse offers exciting prospects for the retail sector through immersive shopping experiences and novel customer interaction models, many unanswered questions remain about the long-term sustainability and

scalability of such investments. Future research should therefore explore how metaverse investments affect not only short-term market performance but also enduring financial health, profitability cycles, and the operational adaptability of companies across diverse sectors.

One key direction is the need to conduct comparative studies across industries—such as retail, manufacturing, healthcare, and education—to determine sector-specific impacts of metaverse adoption. Additionally, longitudinal studies are essential to assess how metaverse investments evolve over time and influence company valuations, revenue diversification, and cost structures in the long run. Research should also examine the challenges faced by small and medium-sized enterprises (SMEs), which often operate with limited financial resources but could benefit significantly from digital expansion via the metaverse.

Another important area involves exploring the intersection of metaverse adoption with corporate ethics, diversity, and inclusion strategies, particularly in relation to consumer well-being, data privacy, and fairness in digital transactions. Finally, future studies could investigate the regulatory and governance frameworks required to ensure equitable and responsible use of metaverse technologies within corporate ecosystems.

Table 5: Future Research Directions

Research Focus Area	Key Research Questions	Expected Contribution
Longitudinal Financial Impact	How do metaverse investments affect company profits and stock valuation over time?	Insights into sustainable financial performance of metaverse investments.
Cross-Industry Effects	Which industries benefit the most from metaverse adoption? How do operational models shift?	Sector-specific strategies for metaverse integration.
SME Adaptation Challenges	What barriers prevent SMEs from entering the metaverse space?	Policy and strategy recommendations for resource-constrained organizations.
Ethical and Social Implications	How does the metaverse influence consumer well-being, data privacy, and inclusivity?	Guidelines for responsible metaverse practices emphasizing fairness and DEI.
Regulatory and Governance Needs	What regulatory frameworks are necessary to ensure safe and ethical corporate use?	Support for balanced policies that foster innovation while ensuring equity.
Operational Efficiency Outcomes	How do virtual operations improve or complicate supply chain and workforce management?	Operational best practices and models for enhanced efficiency and agility.

Collectively, these directions will enrich academic understanding and offer practical insights for corporate leaders navigating the evolving digital landscape.

REFERENCES

1. Büchel, H., & Spinler, S. (2024). The impact of the metaverse on e-commerce business models: A Delphi-based scenario study. *Technology in Society*, 76(2), 102465. <https://doi.org/10.1016/j.techsoc.2024.102465>
2. Çipi, A., Demir, A., & Yıldız, O. (2023). Detecting and developing new business opportunities in Society 5.0 contexts: A sociotechnical approach. *Technology in Society*, 75, 102297. <https://doi.org/10.1016/j.techsoc.2023.102297>
3. Dwivedi, Y. K., Hughes, L., Baabdullah, A. M., Ribeiro-Navarrete, S., Giannakis, M., Kasper, H., ... & Wamba, S. F. (2022). Metaverse beyond the hype: Multidisciplinary perspectives on emerging challenges, opportunities, and agenda for research, practice and policy. *International Journal of Information Management*, 66, 102542. <https://doi.org/10.1016/j.ijinfomgt.2022.102542>
4. Keegan, B. J., Murphy, G., & Lee, B. (2024). On your marks, headset, go! Understanding the building blocks of metaverse realms. *Business Horizons*, 67(1), 45-56. <https://doi.org/10.1016/j.bushor.2023.09.004>
5. Marabelli, M., Newell, S., & Cram, W. A. (2023). Responsibly strategizing with the metaverse: Business implications and DEI opportunities and challenges. *Journal of Strategic Information Systems*, 32(3), 101771. <https://doi.org/10.1016/j.jsis.2023.101771>

6. Schmalz, U., Spinler, S., & Holzapfel, A. (2021). Lessons learned from a two-round Delphi-based scenario study. *MethodsX*, 8, 101161. <https://doi.org/10.1016/j.mex.2021.101161>
7. Teece, D. J. (2018). Business models and dynamic capabilities. *Long Range Planning*, 51(1), 40-49. <https://doi.org/10.1016/j.lrp.2017.06.007>
8. Tingelhoff, F., Valentino, J., & Zierau, N. (2025). Metaverse offerings and their impact on stock returns: Evidence from an event study. *SSRN Electronic Journal*. <https://doi.org/10.2139/ssrn.5132735>
9. Weking, J., Stöckli, E., & Gersch, M. (2023). Metaverse-enabled entrepreneurship. *Journal of Business Venturing Insights*, 19, e00389. <https://doi.org/10.1016/j.jbvi.2023.e00389>
10. Yoo, K., Ko, E., & Kim, Y. K. (2023). The merchants of meta: A research agenda to understand the future of retailing in the metaverse. *Journal of Retailing*, 99(2), 141-154. <https://doi.org/10.1016/j.jretai.2023.03.002>