Vol. 5 No. 3, 2024
THREE SEAS ECONOMIC JOURNAL
DOI: https://doi.org/10.30525/2661-5150/2024-3-6

CHALLENGES AND OPPORTUNITIES IN IMPLEMENTING WEB 3.0 STRATEGIES

Andriy Melnyk[1]

Abstract. This article examines the problems and opportunities that organisations face in implementing a Web 3.0 strategy. It explores the decentralised and transparent characteristics of Web 3.0 technologies, including blockchain, smart contracts and decentralised apps (dApps), and their future impact on business operations. *Methodology.* The article applies a qualitative methodology using case studies of Fortune Global 500 companies to offer practical advice on Web 3.0 adoption, the obstacles they face and recommendations for overcoming these challenges. *Results.* Research shows that while the adoption of Web 3.0 offers significant promise for improving operational efficiency, transparency and customer trust, significant obstacles such as regulatory uncertainty, integration costs and technological complexity still need to be overcome. Overcoming industry-specific challenges and implementing customised solutions is crucial to the effective use of Web 3.0 technologies. *Practical implications.* The article offers practical solutions for businesses to effectively integrate Web 3.0 technologies, which will help increase operational efficiency, strengthen trust with consumers and open up new revenue opportunities through tokenisation and decentralised finance. *Value/Originality.* The article offers practical solutions for businesses to effectively integrate Web 3.0 technologies, which will help increase operational efficiency, strengthen trust with consumers and open up new revenue opportunities through tokenisation and decentralised finance.

Keywords: Web 3.0, blockchain, decentralised finance, smart contracts, Fortune Global 500, business strategy, operational efficiency, case analysis.

JEL Classification: O33, F23, M16, C99

1. Introduction

Implementing Web 3.0 plans presents significant obstacles and revolutionary opportunities for businesses. The decentralised and transparent characteristics of Web 3.0 technologies, including blockchain, smart contracts and decentralised apps (dApps), allow companies to increase customer trust, improve operational efficiency and develop new business models. However, the use of these technologies comes with challenges.

A significant problem is the complexity of integrating Web 3.0 technology into existing systems. Many organisations are struggling to migrate their legacy infrastructure to decentralised frameworks, which requires significant investment in new technology, knowledge and cybersecurity protocols. Regulatory ambiguity is a major difficulty as countries and organisations continue to formulate legal frameworks around blockchain, cryptocurrency and data privacy in the Web 3.0 space, leading to potential compliance concerns.

Despite these hurdles, the rewards for companies that effectively implement Web 3.0 initiatives are substantial. Organisations that embrace decentralisation can cultivate more robust, trust-based relationships with consumers, providing greater transparency and control over personal information. In addition, Web 3.0 enables new revenue streams through tokenisation, digital assets and decentralised financing (DeFi), allowing companies to access developing markets and economies. This paper analyses the difficulties and opportunities, and offers ideas on how companies can manoeuvre through the complexities of Web 3.0 while harnessing its disruptive potential. Case studies of Fortune Global 500 organisations provide empirical illustrations of practical implementations and insights from early adopters.

[1] Lviv Polytechnic National University, Ukraine
E-mail: andremelnuk@gmail.com
ORCID: https://orcid.org/0009-0006-3832-0511

2. Barriers to the Implementation of Web 3.0 at Enterprises

As Web 3.0 technologies such as blockchain, decentralised finance (DeFi) and smart contracts gain traction, enterprises face distinct hurdles in adopting them. Although Web 3.0 offers openness, security and decentralised governance, its integration into traditional businesses faces sector-specific barriers. These include regulatory challenges, significant implementation costs, technology constraints and customer awareness issues. This table provides an overview of the critical Web 3.0 components, including the barriers to adoption in various industries (Fortune, 2024) and actionable ideas to address these issues. By recognising these barriers and providing tailored solutions, organisations can more effectively integrate Web 3.0 technology into their operations to improve efficiency, transparency and customer engagement.

The table consists of three main components: *Industry sector*. Industries that face obstacles in implementing Web 3.0. *Barriers.* The main challenges faced by each industry when integrating decentralised technologies. *Strategies for addressing challenges.* Effective solutions that businesses can apply to overcome obstacles and successfully integrate Web 3.0 developments. This systematic method provides insight into how different companies can harness the power of Web 3.0 while minimising risks and overcoming industry-specific obstacles. Table 1 summarises the barriers and strategies for overcoming the challenges for each industry from the Fortune Global 500 list:

– The table demonstrates that while Web 3.0 technologies have disruptive potential in several sectors, their adoption is hampered by certain sectoral constraints. The main conclusions from the table include the following:

– Regulatory challenges are pervasive. Almost all sectors, including banking, pharmaceuticals, and utilities, face regulatory uncertainty when trying to adopt decentralised technologies such as blockchain and DeFi. Engaging with authorities and promoting a more defined framework is crucial for widespread adoption.

– Technology integration and the associated costs are major challenges. Sectors such as aerospace and defence, medical devices and transport face challenges in assimilating disparate systems with existing infrastructure. Significant costs, complexity and the need for specialist knowledge are significant obstacles. Establishing well-defined processes and allocating resources to education and training can facilitate this change.

– Supply chain transparency is a recurring theme. Supply chain transparency and product traceability is a priority for industries such as clothing, food and pharmaceuticals, textiles and wholesale. Blockchain offers a viable answer, but in order to properly harness its potential, public awareness and trust in these systems must be increased.

– Data security and privacy is a major concern. Sectors such as healthcare, finance and telecommunications need to balance innovation with the protection of sensitive information. The decentralised nature of blockchain offers a solution, but security issues require the implementation of secure infrastructure and sophisticated encryption technologies.

– Decentralised models open up new business opportunities. Sectors such as energy and entertainment can explore decentralised business structures such as smart grids or monetisation of tokenised content, which could potentially open up new revenue streams. They must overcome resistance from traditional centralised systems and educate stakeholders about the benefits of decentralisation.

– Industry-specific solutions are very important. Every industry faces certain obstacles. Pharmaceuticals need to prioritise the fight against counterfeit medicines, while construction can use smart contracts for project management. Tailored solutions are needed to optimise the benefits of Web 3.0 for each sector.

The practical implementation of Web 3.0 in many companies will depend on overcoming regulatory, technological and operational obstacles. By focusing on creating secure, scalable and transparent systems, businesses can fully leverage Web 3.0 technologies to increase efficiency, build trust and foster creativity.

3. Opportunities for Innovation in Marketing and Strategy

Web 3.0, the next evolution of the internet, is defined by decentralisation, blockchain technology, the tokenised economy and greater user autonomy over data. These technological changes are transforming sectors, offering marketers and strategists unprecedented potential for innovation. Companies that skilfully leverage Web 3.0 technology in their marketing and strategic endeavours can stand out by providing their customers with a more engaging, personalised and secure experience. Key areas where Web 3.0 is driving innovation in marketing and strategy include the following:

– Decentralised client interaction. Web 3.0 facilitates the transition of organisations from centralised platforms to decentralised networks, giving customers greater control over their data and interactions (Gatomatis et al., 2022). This allows businesses to establish direct interaction with consumers without intermediaries. Instead of relying on centralised platforms such as Facebook or Google to engage consumers, companies can use decentralised applications (dApps) and decentralised autonomous

Table 1
Barriers and strategies for Fortune Global 500 industries

Industry sector	Barriers	Strategies for addressing challenges
1	2	3
Aerospace and defence industry	Regulatory challenges and the risk of cyber attacks	Develop secure private blockchains, work with regulators
Airlines	Large transaction volumes, integration of legacy systems	Blockchain for loyalty programmes, customer data integration
Clothing	Consumer awareness, supply chain transparency	Educate consumers, integrate blockchain for traceability
Banks (commercial and savings)	Regulatory resistance, security concerns	Advocate for clear rules, safe protocols
Beverages	Supplier resistance, integration issues	Integrate blockchain for transparency and customer engagement
Building materials, glass	High cost, lack of industry use cases	Decentralised tracking for sustainable development
Chemicals	Difficulty in verifying raw materials	Use blockchain to comply with environmental regulations
Computer software	Lack of experience, problems of the transition period	Train developers, integrate decentralised platforms
Computers, office equipment	Large transaction volumes, inventory management	Blockchain for secure transactions, supply chains
Construction and agricultural machinery	Lack of smart contract standards, supply chain issues	Use blockchain to track contracts and equipment
Diversified financials	Challenging regulatory environment, adapting decentralised finance	Implement DeFi tools as part of the compliance process
Electronics, electrical equipment	Counterfeiting, lack of decentralised production standards	Blockchain for secure supply chain tracking
Energy	Resistance from centralised providers, regulatory obstacles	Blockchain for decentralised trade and smart grids
Engineering and construction	Lack of smart contracts, problems with integration	Smart contracts for project management and tracking
Entertainment	Piracy and ownership of NFTs	Use NFT to protect intellectual property rights and monetise content
Food and medical stores	Trust in blockchain, high integration costs	Blockchain for transparent supply chains
Food consumer goods	Authentication, blockchain for food safety	Blockchain for verifying suppliers and product origin
Food production	Low awareness, resistance to decentralised tracking	Integrate blockchain for food safety compliance
Food services	High costs, lack of clear blockchain use cases	Blockchain for supply chain transparency and loyalty programmes
General merchandisers	Resilience to decentralised logistics systems	Blockchain for logistics tracking
Healthcare: insurance and managed care	Data privacy issues, regulatory barriers	Use blockchain for claims processing, secure data exchange
Healthcare: medical institutions	Strict regulatory requirements, data integration challenges	Blockchain for protecting patient data
Healthcare: pharmacy and other services	Regulatory obstacles, problems with the authenticity of medicines	Track medicines, prevent counterfeiting
Homebuilders	High costs, unclear use cases	Use smart contracts for real estate transactions
Household and personal care products	Consumer confidence in blockchain, supply chain integration	Blockchain for supply chain transparency
Industrial equipment	High adaptation costs, decentralised management	Blockchain for equipment tracking and lifecycle management
Information technology services	Lack of skilled developers, decentralisation challenges	Train developers to use Web 3.0 tools
Insurance (life, health)	Data privacy, decentralised claims processing	Smart contracts for claims processing
Insurance (property and casualty)	Problems of integration with property verification	Blockchain for efficient loss adjustment
Internet services and retail	Consumer resistance, scaling issues	Blockchain for secure payments, loyalty programmes

(End of Table 1)

1	2	3
Delivery of mail, parcels and cargo	Integration of blockchain logistics, real-time tracking	Blockchain to track shipments
Medical products and equipment	Regulatory obstacles, product traceability	Track medical supplies with blockchain
Metals	Complexity of supply chain traceability, implementation costs	Track ethically sourced materials with blockchain
Mining and crude oil production	Environmental issues, transparency issues	Implement blockchain for compliance and tracking
Vehicles and spare parts	Decentralisation of complex supply chains, cyber security	Tracking spare parts, vehicle history using blockchain
Network and other communication equipment	Decentralised network integration, security	Secure communications and decentralised supply chains
Oil and gas equipment, services	High integration costs, regulatory issues	Blockchain for equipment tracking
Petroleum refining	Environmental problems, resistance to decentralisation	Blockchain for oil tracking and compliance
Pharmaceuticals	Regulatory challenges, lack of standards	Blockchain for medicine tracking and anti-counterfeiting
Pipelines	Integration costs, regulatory challenges	Tracking material flows using blockchain
Railroads	High costs, problems with decentralised logistics	Freight tracking with blockchain
Real estate	Decentralised property transactions, regulatory obstacles	Smart contracts for property transfer
Semiconductors and other electronic components	Complexity of the supply chain, authentication	Blockchain for supply chain and anti-counterfeiting
Shipping	High costs, decentralised logistics	Efficient logistics with blockchain
Specialised retail	Consumer awareness, implementation of payment systems	Loyalty programmes and secure payments using blockchain
Telecommunications	Data security, resilience to decentralisation	Leverage blockchain for secure networks
Textiles	Supply chain traceability and authenticity issues	Blockchain for transparency and traceability in supply chains
Tobacco	Regulatory issues, problems with product traceability	Track goods using blockchain to ensure authenticity
Trading	High transaction volumes, lack of blockchain standardisation	Develop standardised blockchain protocols for trading systems
Transport and logistics	Integration with decentralised logistics systems	Blockchain for logistics tracking and real-time updates
Utilities	Regulatory obstacles, decentralised grid management	Blockchain for decentralised energy trading and smart grids
Wholesalers (electronics and office equipment)	High transaction volumes, data integration	Integrate blockchain for inventory management
Wholesalers (food and grocery)	Supply chain transparency, consumer confidence	Use blockchain for tracking food safety and ensuring transparency
Wholesalers (healthcare)	Supply chain transparency, data privacy issues	Leverage blockchain for secure, transparent supply chains

Source: compiled by the author based on Fortune Global 500 (2024)

organisations (DAOs) to promote community-driven marketing. DAOs allow customers to make decisions, fostering loyalty and a sense of community involvement (Kumar et al., 2022). **Opportunity:** using blockchain-based platforms to create authentic and trusted interactions that enable consumers to co-create value and participate in governance.

– Personalised marketing with data sovereignty. Web 3.0 gives customers more ownership and control over their data through decentralised identification and storage platforms. This requires marketers to shift to permission-based marketing, where customers grant permission to access their data in exchange for personalised offers and experiences (Efendioğlu, 2023). This promotes responsible use of data and builds trust among customers who are increasingly concerned about privacy. **Opportunity:** developing marketing tactics that emphasise data sovereignty by encouraging customers to voluntarily disclose their data in exchange for a personalised, value-driven experience.

Transparency and permission are fundamental components of Web 3.0 marketing.

– Tokenisation and loyalty initiatives. Tokenisation – the conversion of rights or assets into a digital token on the blockchain – creates new opportunities for customer loyalty programmes (Krishen et al., 2021). Businesses can issue branded tokens or non-fungible tokens (NFTs) that consumers receive through interactions, purchases, or community involvement. These tokens can be redeemed for unique offers, sold, or used to obtain additional benefits. Tokenised loyalty programmes promote ongoing engagement and can be tailored to reward customers according to their habits. **Opportunity:** development of tokenised loyalty programmes that provide customers with unique prizes, NFTs, or the ability to buy and sell rewards on decentralised platforms, increasing engagement and brand loyalty.

– NFTs for brand narratives and digital property. Non-fungible tokens (NFTs) are a prominent breakthrough in Web 3.0, enabling businesses to provide distinctive digital assets associated with their brands (Wan et al., 2023). NFTs provide marketers with an innovative way to tell their stories, produce limited edition digital collectibles or provide unique access to content and experiences. Fashion firms can issue NFTs that symbolise ownership of unique clothing or digital artwork, while entertainment brands can provide NFTs that provide access to unpublished content or events. **Opportunity:** use NFTs to create distinctive digital assets that consumers can buy, exchange or use for exceptional experiences. These assets can enhance brand storytelling and consumer engagement by giving them a stake in the digital identity of the business.

– Decentralised autonomous organisations (DAOs) for brand communities. Decentralised autonomous organisations (DAOs) are smart contract-driven organisations where members make decisions together. This allows companies to create decentralised communities where customers influence brand trajectory, product development, and marketing strategies (Kumar et al., 2022). The creation of a DAO allows companies to engage their most passionate supporters and turn them into active participants in brand development. This fosters a collective sense of ownership and turns customers into brand advocates. **Opportunity:** create DAOs to build brand communities and allow customers to participate in important decision-making, increasing loyalty and promoting co-creation of value.

– The metaverse and immersive experiences. Web 3.0 is closely linked to the emergence of the metaverse, a virtual realm where users engage with digital environments, assets and each other in real time. The metaverse offers marketers a new domain for immersive marketing encounters (Fan et al., 2023). Brands can create virtual environments, host events, showcase products or market virtual goods in the metaverse. This creates innovative ways to engage consumers, increase brand awareness and capitalise on digital assets. **Opportunity:** leveraging metaverse to create virtual experiences, retail environments or events that allow customers to interact with the business in an immersive and engaging way, despite physical limitations.

– Smart contracts for easy transactions and collaboration. Smart contracts, which are self-executing agreements with terms and conditions coded directly into the software, can streamline and automate marketing and strategic operations. Smart contracts can automate collaboration with influencers by providing rewards based on the fulfilment of certain conditions or by facilitating the management of affiliate marketing programmes in a decentralised and transparent way (Kansal, 2024). This reduces friction in collaboration and helps build trust through automated implementation. **Opportunity:** utilise smart contracts to automate marketing collaborations, deals and loyalty programmes, providing transparency, increasing efficiency and reducing the risk of fraud.

– Blockchain for transparent supply chains. Consumers' desire for transparency is growing, and Web 3.0 is helping businesses provide reliable information about the origin and trajectory of their products in real time using blockchain technology (Mohammed et al., 2023). This is particularly relevant for the fashion, food, and retail sectors, where customers are more concerned about sustainability and ethical sourcing. By using blockchain technology, organisations can demonstrate the full life cycle of their products, from source to sale, which will help build trust and loyalty among discerning customers. **Opportunity:** utilise blockchain technology to monitor and verify the origin and sustainability of the products being sold, providing customers with instant transparency and strengthening the brand reputation.

– Decentralised finance (DeFi) as a mechanism for innovative revenue models. Decentralised finance is transforming the way organisations raise capital, conduct financial transactions and incentivise customers. DeFi provides businesses with innovative crowdfunding opportunities by facilitating tokenised capital and pre-sale product offerings (Taherdoost & Madanchian, 2023). Customers and investors can contribute to business growth by investing and receiving tokens in exchange, which can be used within the company's ecosystem or exchanged on the open market. **Opportunity:** investigate DeFi to develop new revenue models, such as tokenised stocks, decentralised fundraising, or giving users a stake in the firm through tokenised ecosystems.

Final assessment. Web 3.0 gives businesses the opportunity to rethink their marketing and strategic efforts. Using decentralised technologies such as blockchain, NFTs, DAOs and DeFi, companies can establish more transparent, secure and personalised partnerships with their consumers. The ability to provide digital ownership, co-creation and immersive experiences creates new opportunities for engagement and revenue generation, empowering both businesses and customers in a decentralised marketing landscape.

4. Case Studies: Implementing Web 3.0 in Global Fortune 500 Companies

As Web 3.0 technologies rapidly advance, several global Fortune 500 companies are leading the way in adopting decentralised innovations to improve their business models, customer engagement, and operational efficiency. These companies recognise the disruptive capabilities of Web 3.0 – defined by blockchain, decentralised finance (DeFi), non-fungible tokens (NFTs) and smart contracts – and are incorporating these technologies into their strategy to remain competitive in a digital-centric environment.

This section examines case studies of prominent Global Fortune 500 companies that have effectively leveraged Web 3.0 technologies. This collection of case studies illustrates how companies are using Web 3.0 technologies, including tokenised loyalty programmes, blockchain supply chains, decentralised finance and immersive metaverse experiences, to drive innovation, create new revenue streams and establish transparent, secure and customer-centric business models. These cases illustrate the practical implementation of Web 3.0 technologies and offer insights into how major companies are preparing for a decentralised future. These are some of them:

– **Nike** is renowned for its enthusiastic embrace of Web 3.0. The company acquired virtual sneaker company RTFKT to enter the virtual goods industry, and partnered with artist Takashi Murakami to launch NFT editions of its famous Air Force 1 shoes. RTFKT has made Nike footwear available in several online games and metaverses. They have their own NFT marketplace, SWOOSH, named after the brand's iconic emblem. SWOOSH allows users to explore and purchase virtual works, and intends to offer co-creation tools in the future. Nike has launched its virtual realm, a personalisation platform called "Nike By You", along with "Nike Training Club", a virtual reality application. Nike pledges to continue to discover innovative ways to use them to create an engaging consumer experience (Nike, Inc., 2024).

– **Meta,** formerly known as Facebook, has been active in promoting the metaverse. They have effectively rebranded and are developing an internet network of interconnected, immersive 'virtual worlds'. Meta defines the metaverse as a space where people can interact, create, play and shop together. Meta intends to merge virtual reality with the metaverse through its Quest headsets and Horizon Worlds platform (Meta Platforms, Inc., 2024).

– **Apple** and **Meta** have made significant advances in augmented and virtual reality. The Apple Vision Pro, launched by the tech giant, is being touted as Apple's foray into AR/VR (Apple, 2024). This technology integrates augmented and virtual reality, allowing users to switch between the two using a dial on the headgear. The Apple Vision Pro is designed primarily as a utility device rather than a gaming device, and marks Apple's attempt to gain a foothold in the VR/AR landscape. This move follows Meta's entry into the metaverse in 2021 (Meta Platforms, Inc., 2024).

Despite questions about the economic viability and safety of children, Meta has invested billions in the project. As the cost of VR headsets comes down and consumers become more familiar with the metaverse, it will be interesting to see how things develop in 2024. The launch of Apple's Vision Pro and Meta's commitment to the metasphere highlight the competition and innovation that is shaping the future of augmented and virtual reality.

– **Microsoft** is a prominent player in the Web 3.0 domain, and is involved in several technology-oriented initiatives. The company has developed a blockchain-based platform called Azure, which is intended to be a comprehensive resource for developers looking to build decentralised applications. Microsoft, one of the world's leading technology companies, has partnered with blockchain platform Aptos Labs to integrate AI with Web 3.0 technologies. Microsoft, a key proponent of OpenAI's ChatGPT and a user of DALL-E 3 in Bing Image Creator, is expanding its AI capabilities by training models with blockchain-validated data through Aptos. Aptos will also run validator nodes on the Microsoft Azure cloud service.

Confidential documents have shown that Microsoft intends to include a cryptocurrency wallet in the Xbox gaming system. This would allow developers and gamers to monetise in-game assets and expand functionality by integrating assets across games. Imagine winning a Fortnite match and receiving the winnings in the form of a personalised item that one can wear on their Xbox avatar (Microsoft, 2024).

– **Starbucks.** Outside of the IT sector, the ubiquitous Starbucks coffee chain has launched its foray into Web 3.0 with the Starbucks Odyssey project. The project is a Web 3.0 enhancement to the company's current loyalty programme, which

is said to be used by more than 31 million people every day. It gives coffee lovers access to a variety of additional prizes and activities. These activities are called "journeys" and include interactive games and challenges aimed at enhancing users' understanding of Starbucks and the wider coffee story. Upon completion of each journey, customers receive an NFT known as a "journey stamp". Participants can purchase a limited edition of stamps through the integrated marketplace in the Odyssey app. Currently, every person who minted a Starbucks NFT makes a profit. This is quite amazing considering that there are currently at least 42,000 holders. Starbucks Odyssey, with a customer base of up to 100 million, has the potential to benefit millions of people in the coming years.

Starbucks allows the purchase of these stamps using Web 2.0 payment methods, including debit and credit cards, to simplify the process of joining the network for its customers. Members who accumulate stamps receive many exclusive benefits and experiences, from virtual lessons to invitations to special events at Starbucks Reserve Roasteries (Starbucks, 2024).

– **Visa**, a leading credit card company, is offering Web 3.0 loyalty solutions for businesses that use the Visa Rewards programme. Brands can now reward customers with tokens and digital collectibles for purchases and social media interactions. Web 3.0 loyalty programs offer superior advantages compared to conventional Web 2.0 programs. The programmes can be gamified to increase retention and overall participation. They offer customers multi-platform interaction as they can be seamlessly integrated with 3D/AR experiences and are relatively easy for organisations to initiate and maintain. Encouraging community interaction is often an effective way of maintaining interest in any concept. These tokens are used to activate incentives at participating businesses or to enhance their experience in digital environments. Visa has been particularly active in Web 3.0, working with the South African exchange Valr to expand its presence outside the African market. They have extended stablecoin settlement to the Solana blockchain to facilitate faster cross-border transactions (Visa Inc., 2024).

5. Conclusions

The adoption of Web 3.0 technologies presents both significant opportunities and challenges for businesses. The decentralised characteristics of Web 3.0, including blockchain, smart contracts and decentralised applications, have the potential to revolutionise business structures, increase transparency and foster user engagement. However, these changes face challenges, including legislative uncertainty, significant implementation costs, and the difficulty of integrating decentralised technologies with existing systems. The paper emphasises that successful implementation requires tailored methods for each industry, as different sectors have different constraints. Regulatory challenges often arise in highly regulated industries such as finance and healthcare, while supply chain transparency is essential in industries such as fashion and food. Overcoming these challenges requires tailored solutions and a proactive strategy for regulatory engagement. In addition, businesses that effectively implement Web 3.0 technologies can access new opportunities, including tokenised revenue models, decentralised governance, and improved customer experience. Businesses can develop new business models and improve customer experience by leveraging Web 3.0's distinctive features, such as tokenisation for loyalty initiatives, NFTs for brand narratives, and DAOs for community-based governance.

The case studies of Fortune Global 500 companies illustrate real-world examples of Web 3.0, highlighting both the achievements and challenges faced by companies adopting these technologies. These case studies provide important insights for other companies that are considering adopting decentralised technologies to stay competitive in the changing digital environment. In summary, while the transition to Web 3.0 is complex and requires significant effort and strategic foresight, the potential benefits of increased transparency, efficiency and new commercial opportunities make it a valuable endeavour for forward-thinking organisations. To fully realise the potential of Web 3.0, organisations must overcome technological, regulatory and operational hurdles, and allocate resources to education, secure infrastructure and engagement with industry players.

References:

Fan, Y., Huang, T., Meng, Y., & Cheng, S. (2023). The current opportunities and challenges of Web 3.0. Cornell University.

Gatomatis, P., Bogonikolos, N., & Chatzichristos, I. (2022). Towards the era of Web 3.0 and the marketing 3.0. *International Journal of Business &Amp; Management Studies*, Vol. 03(12), p. 76–83.

Halil Efendioğlu, İ. (2023). The change of digital marketing with artificial intelligence. Proceedings of the 7th International Conference on Applied Research in Management, Economics and Accounting.

Kansal, K. (2024). Exploring the prospects and challenges of artificial intelligence in shaping the future of Web 3.0. *International Journal for Research in Applied Science and Engineering Technology*, Vol. 12(3), p. 1048–1053.

Krishen, A S., Dwivedi, Y K., Bindu, N., & Kumar, K S. (2021). A broad overview of interactive digital marketing: A bibliometric network analysis. *Elsevier BV*, Vol. 131, p. 183–195.

Kumar, S. D., Rani, N., & Upadhyay, P. (2022). Towards blockchain led decentralized autonomous organization (DAO) business model innovations. *Benchmarking: An International Journal*, Vol. 30(2), p. 475–502.

Mohammed, A., Potdar, V., & Quaddus, M. (2023). Exploring factors and impact of blockchain technology in the food supply chains: an exploratory study. *Foods*, Vol. 12(10), p. 2052.

Taherdoost, H. and Madanchian, M. (2023). Blockchain-based new business models: a systematic review. *Electronics*, Vol. 12(6), p. 1479.

Wan, S., Hong, L., Gan, W., Chen, J., & Yu, P S. (2023). Web3: The Next Internet Revolution. Cornell University.

Apple. (2024). Available at: https://www.apple.com

Fortune. (2024). Available at: https://fortune.com/

Meta Platforms, Inc. (2024). Available at: https://investor.fb.com

Microsoft. (2024). Available at: https://www.microsoft.com

Nike, Inc. (2024). Available at: https://investors.nike.com

Starbucks. (2024). Available at: https://www.starbucks.com

Visa Inc. (2024). Available at: https://www.visa.com

Received on: 12th of September, 2024
Accepted on: 26th of October, 2024
Published on: 15th of November, 2024