

Development in Digital Capitalism: Challenges and Prospects of Nepal

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Abstract

This study delves into the challenges and possibilities surrounding the establishment of digital capitalism in Nepal. Utilizing a secondary data analysis methodology, it examines the current state of digital capitalism in the country and identifies the key obstacles and opportunities. The theoretical framework employed incorporates concepts like transnational informational capitalism, digital governance, and actor-network theory to comprehend the dynamic relationship between labor, technology, and capitalism in the digital era. The findings indicate that while Nepal has witnessed growth in internet penetration and mobile phone usage, there are still significant disparities in digital access and infrastructure between urban and rural areas. The challenges faced include inadequate digital infrastructure, limited consumer trust and awareness, and the need for more robust regulatory frameworks. Nevertheless, Nepal also holds promising prospects for digital capitalism. The increasing availability of smart-phones a techno-literate youth population, and government initiatives aimed at promoting digital literacy and entrepreneurship contribute to the country's potential in this area. The study underscores the significance of digital capitalism for Nepal's economic development and provides recommendations to policymakers, entrepreneurs, and researchers on how to foster an environment that facilitates the growth of digital capitalism. By addressing the challenges of digital infrastructure, building consumer trust, and strengthening regulatory frameworks, Nepal can harness the benefits of digital capitalism, leveraging it as a catalyst for economic progress in the country.

Key Words: Digital capitalism, Digital infrastructure, Digital literacy, Regulatory framework.

Introduction

Digital capitalism, the combination of digital technologies and capitalism, has brought about substantial changes in global economies. According to Fuchs (2013), digital technology transforms various aspects, leading to transnational informational capitalism. Capital's search for new strategies changes labor, emphasizing cognitive, communicative, and

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cooperative work mediated by information technologies, producing tangible and intangible informational goods. Transnational informational capitalism captures this interconnection between labor and technology in contemporary capitalism. Digital capitalism indicates the economic systems in which digital technologies and online platforms are applied for data production, distribution, and consumption of goods/services.

The aim of this study is to investigate the challenges and possibilities associated with the establishment of digital capitalism in Nepal. Through an analysis of the present situation, identification of challenges, exploration of prospects, and provision of recommendations, this paper seeks to illuminate ways in which Nepal can utilize the potential of digital capitalism to foster economic growth. This study focuses on examining the challenges and opportunities related to the advancement of digital capitalism.

Background of the Study

Digital capitalism has revolutionized consumption, making it more convenient, diverse, and personalized. It has also optimized logistics and reduced costs, leading to unprecedented modernization and growth in the consumption sector of the digital economy (Ding, 2022). The advancement of digital technologies and a growing interest in entrepreneurship have created new possibilities for economic development in Nepal.

The technological sector plays a vital role in propelling the digitalization of the global economy, serving as a significant channel for surplus accumulated capital. This sector's importance is further amplified by the rise of platforms and digital infrastructures, which facilitate the trans-nationalization of services and enhance its strategic position within global capitalism. Digital capitalists exploit the vast reserves of data, exercising control and accumulating substantial profits through rent-seeking practices. The digital economy, driven by advanced information technology and data analysis, has become central to all facets of the global economy, gradually substituting labor with technological advancements. It indicates an economic system reliant on digital technologies, online platforms, and information for production, trade, and consumption. However, despite optimistic claims of generating high-skilled, well-paid employment opportunities, the digital economy is expected to bring about widespread joblessness, precarious work arrangements, and the potential collapse of key sectors across the global economy (Robinson, 2018).

According to the Nepal Telecommunications Authority (2023) internet penetration in Nepal stands at approximately 73.2 %, with mobile phones being the primary means of access. The rise of digital platforms and the increasing adoption of e-commerce have opened up new avenues for economic growth. However, there are disparities in digital access and infrastructure between urban and rural areas. The Digital Foundation aspect of the Digital Nepal Framework focuses on three main areas: Digital Connectivity, Digital Skills, and Digital Governance (Government of Nepal, 2019). In recent years, Nepal

has experienced significant growth in mobile and internet usage, leading to a surge in digital connectivity. However, the country faces unique challenges in fully realizing the potential of digital capitalism. Understanding these challenges is crucial for policymakers, entrepreneurs, and researchers to foster an environment conducive to digital capitalism.

Digital Landscape of Nepal

Nepal, a landlocked country in South Asia, boasts a rich cultural heritage and diverse topography. The economy of Nepal relies heavily on agriculture, remittances, and tourism. The adoption of digital technologies has been relatively slow compared to neighboring countries. However, recent years have witnessed an increase in mobile phone usage and internet connectivity, creating opportunities for the growth of digital capitalism. There were 15.85 million internet users in Nepal in January 2023 (GoN, 2023). Nepal's internet penetration rate stood at 51.6 percent of the total population at the start of 2023. [Kepios](#) analysis (2023) indicates that internet users in Nepal increased by 181 thousand (+1.2 percent) between 2022 and 2023.

According to the Nepal Telecommunications Authority (2022), broadband penetration in the country stands at 126.72%, with mobile broadband at 97.42% and fixed broadband at 29.30% as of mid-February 2022. More than 1.97 million households in Nepal have internet subscriptions. The government is also testing 5G technology. However, challenges such as affordability, digital divide, access limitations, and digital illiteracy still persist in various parts of the country. In terms of digital governance, the government has taken steps to digitize public services, including the digitization of land revenue office data, the introduction of the Nagarik App, the implementation of the Nepal National Single Window (NNSW) system, and the issuance of National ID cards. However, issues related to the capacity of installed technologies and inadequate management of systems continues to pose challenges for service use (Bajracharya, 2022).

Nepal's adoption of digital technologies has been gradually increasing, with a growing number of internet users and improved broadband penetration. However, challenges such as affordability, digital divide, and limited access hinder widespread digitalization across the country. Despite efforts in digital governance, issues with technology capacity and system management persist, requiring further attention for effective service delivery and utilization.

Objectives of the Study

The general objective of this study is to analyze the current scenario of digital capitalism in Nepal, whereas the specific objectives are:

- To identify the challenges hindering the development of digital capitalism in Nepal.
- To explore the prospects and opportunities for the growth of digital capitalism in Nepal.

Theoretical Review

David Chandler (2019) examines the changes in onto-epistemology and governance brought about by the advent of digitalism and Big Data. He argues that, traditional modes of thinking characterized by dualism, reductionism, linear causation, and mechanistic determinism are ill-equipped to tackle the complexities of contemporary society. As a result, a new onto-epistemology is needed, one that transcends dualistic thinking and enables novel forms of governing society and the digital realm.

In that study, Chandler contends that the ontological and political assumptions underlying digital governance can be better understood through actor-network theory. He is particularly interested in the works of Bruno Latour, as well as new materialist theories by scholars like Donna Haraway. Chandler suggests that these approaches provide a means to move beyond dualism and conceive of the world and the digital sphere as interconnected entities.

Chandler & Fuchs, (2019) highlight the inadequacy of traditional modes of thinking in addressing the challenges posed by digitalization and Big Data. He advocates for a new onto-epistemology that embraces interconnectedness and offers alternative methods for governing society and the digital domain. Engaging with actor-network theory and new materialist perspectives, author argued for a shift away from dualistic frameworks towards more holistic understandings of the world and its digital manifestations (Fuchs , 2019).

Jonathn Pace (2018) reveals that digital capitalism aims to go beyond nominalist and structuralist approaches. The author proceeds in the focusing in Schiller and Fuchs (2019) definition of capitalism as an abstract system with core features and a series of historical developments. They draw on the works of Marx and economic historians to provide a comprehensive understanding of capitalism in the digital age. He reformulates the concept of digital capitalism and explores the relationship between digital media and capitalism as a basis for future research.

The author criticizes the nominalist and structuralist tendencies found in (Schiller & Fuchs, 2019) and emphasizes specific developments without a conceptual framework, while Fuchs' approach provides a structural framework but neglects the nuances of specific developments. Both approaches lack a robust definition of digital capitalism and fail to explain the precise connection between digital technology and the core structure of capitalism.

Digital capitalism is defined as a historical period, a property regime characterized by private ownership of digital networks, and a management style organized around digital networks. However, the author argues that these definitions do not adequately explain how these processes relate to the broader system of capitalism and highlights the

ambiguity and conceptual challenges in understanding digital capitalism. By moving beyond nominalist and structuralist approaches, he calls for a more comprehensive analysis that considers both specific developments and the overarching structure of capitalism in the digital era (Pace, 2018).

The theory surveillance capitalism coined by Zuboff, focused how digital technologies enable the extraction of user data by corporations, which is then monetized for targeted advertising, behavioral manipulation, and predictive analytics (Zuboff, 2019).

Informational capitalism describes the role of information and knowledge in contemporary capitalism, highlighting the transformative power of digital technologies in enabling the creation, production, and dissemination of information and knowledge as key drivers of economic growth and power dynamics (Castells, 1996).

Hence, the discussions on onto-epistemology, digital governance, and digital capitalism challenge traditional modes of thinking and highlight the need for new approaches in understanding and governing the digital realm. These perspectives align with modernization theory, which emphasizes the transformative power of digital technologies in shaping contemporary society and the economy. By embracing interconnectedness, holistic understandings, and the role of information and knowledge, these theories contribute to a comprehensive analysis of modernization in the context of the digital age.

Methods

This study employs a secondary data analysis method to investigate the impact of digitalization capitalism on Nepal's economy. Existing data sources, such as academic articles, reports, and government publications, were reviewed to examine the challenges and prospects associated with the adoption of digital capitalism in Nepal. The collected data was analyzed using a thematic analysis approach to identify key themes and patterns related to the challenges and potential of digital capitalism. It is important to note that the findings are based on the available literature and should be interpreted cautiously due to limitations in data coverage, reliability, and currency. Ethical considerations pertaining to primary data collection were not applicable as this study solely relied on existing data sources.

Discussion and Analysis

Digitalization Process in Nepal: Current Scenario

In Nepal, the development of digital capitalism is still in its nascent stages. There were 15.85 million internet users in Nepal at the beginning of 2023 (DIGITAL NEPAL, 2023), when internet penetration stood at 51.6 percent. Nepal was home to 12.60 million social media users in January 2023, equating to 41.0 percent of the

total population. A total of 42.78 million cellular mobile connections were active in Nepal in early 2023, with this figure equivalent to 139.2 percent of the total population. (Kemp, 2023). The penetration of digital technologies, such as smart phones and internet connectivity, has increased over the years, but there are significant disparities between urban and rural areas. E-commerce platforms have gained popularity, enabling businesses to reach a wider customer base. However, the overall digital infrastructure, including internet speed, accessibility, and payment systems, needs improvement to fully support the growth of digital capitalism (Sharma, 2020).

With the advent of the internet and smart-phones, individuals now have the ability to connect with anyone, anytime, and anywhere. The development of technology and widespread access to broadband connectivity are seen as key drivers of economic growth. The banking sector has also embraced technological advancements, with the introduction of electronic banking (e-banking) being one of the latest innovations. In Nepal, most banks offer e-banking, phone banking, and mobile banking services. Tele-banking was first introduced in 1997, followed by internet banking in 2002, and SMS banking in 2004. Across all sectors of the economy, information and communication technology (ICT) has been embraced to enhance productivity, expand market reach, and decrease operational expenses (Bhandari, 2019).

Despite these challenges, there have been notable advancements in the digital sector. The rise of fintech companies and mobile banking services has made financial transactions more convenient and accessible to a larger population. The government's efforts to promote digital literacy and entrepreneurship have encouraged the development of startups and online businesses (Pandey, 2019). However, there is a need for further investment in digital education and skills development to empower individuals and businesses to fully participate in the digital economy.

Challenges in the Development of Digital Capitalism in Nepal

Nepal faces several challenges that impede the development of digital capitalism. Firstly, the inadequate digital infrastructure limits the accessibility and affordability of digital services, especially in rural areas. Limited access to reliable internet and slow internet speeds hinder the growth of online businesses and prevent widespread digital inclusion (Poudyal, 2020).

Secondly, there is a lack of trust and awareness among consumers regarding online transactions and data security. Concerns about privacy, cyber threats, and online fraud inhibit the adoption of digital platforms and e-commerce (Shakya, A., & Lamichhane, K., 2021). Building trust and raising awareness about digital security measures are crucial for encouraging consumer confidence and facilitating the growth of digital capitalism.

Furthermore, the regulatory framework and policies governing the digital sector in Nepal need to be strengthened and adapted to the rapidly evolving digital landscape. Clear guidelines on accesses of internet, awareness, reliable sources of internet, digital literacy, data protection, intellectual property rights, and e-commerce regulations are necessary to provide a secure and supportive environment for businesses and consumers (Shrestha, 2020).

Prospects for the Development of Digital Capitalism in Nepal

Despite the challenges, Nepal possesses significant prospects for the development of digital capitalism. The increasing availability of smart-phones and internet connectivity, along with a growing tech-savvy youth population, presents an opportunity for the expansion of digital services and e-commerce (Pandey, 2019). The government's initiatives to promote digital literacy and entrepreneurship, such as the "Digital Nepal Framework" and the establishment of incubation centers, contribute to the favorable environment for digital capitalism (Government of Nepal, 2018).

Nepal has made progress in adopting technology for sustainable development. According to the Global Information Technology Report 2016, Nepal ranks 118 out of 139 low-income countries in the Network Readiness Index, an improvement compared to its rankings of 123 in 2014 and 114 in 2023 (NRI, 2023). However, Nepal struggles to keep up with the rapid pace of global digitalization, highlighting the need for further advancements to ensure inclusive and sustainable growth (Sarker, T., S. Tandukar, and S. R. Dey. , 2021) .

Digital capitalism is necessary for the economic development of Nepal as it opens up opportunities for growth by leveraging digital technologies, increasing internet connectivity, and expanding mobile phone usage. This enables the country to tap into sectors like e-commerce, online services, and digital entrepreneurship, driving innovation and attracting investments for sustainable economic progress.

The application of ICT in development policies, known as ICT4D, is driven by market expansion and digital capitalism, perpetuating the digital divide and cyber utopianism (Pieterse, 2010). This study holds significant importance for various stakeholders in Nepal. Policymakers can gain insights into the specific barriers that hinder the growth of digital capitalism and develop effective strategies to overcome them. Entrepreneurs can understand the prospects and opportunities in digital capitalism to make informed decisions for their businesses. Researchers can contribute to the existing knowledge base on digital capitalism in Nepal, bridging the gap in understanding the challenges and prospects unique to the Nepalese context.

Additionally, the emergence of digital platforms in sectors like transportation, healthcare, and education demonstrates the potential for innovation and digital disruption in various industries (Gautam et al., 2020). The rising popularity of social media platforms and

online marketplaces further signifies the growing acceptance and utilization of digital platforms among Nepalese consumers (Shakya & Lamichhane, 2021).

Implications of Digital Capitalism in Nepal

The development of digital capitalism in Nepal has far-reaching implications for the economy, society, and individuals. Digitization and the expansion of e-commerce can promote inclusive economic growth by connecting rural entrepreneurs to a wider market and facilitating trade (Sharma, 2020). It can also contribute to job creation, particularly in the digital and technology sectors, fostering employment opportunities for the youth population.

Digital capitalism has the potential to improve the efficiency and transparency of government services through e-governance initiatives (Gautam, S., Sharma, S., & Bhandari, R , 2020). The digitalization of public services, such as online tax filing and digital identification systems, can enhance convenience and reduce bureaucratic hurdles.

The rise of digital capitalism in Nepal has had various implications and impacts: it has contributed to the growth of the country's digital economy, fostering innovation, entrepreneurship, and creating new job opportunities in the technology sector. This growth has been evident through the emergence of startups and digital platforms in areas such as e-commerce, fintech, ride-sharing, and online services. Digital platforms and e-commerce have expanded access to both national and international markets for Nepali businesses, enabling them to reach a broader customer base. Small and medium-sized enterprises (SMEs) have been able to leverage these digital platforms to sell their products and services beyond traditional geographical limitations. Digital capitalism has played a role in promoting financial inclusion in Nepal by providing previously unbanked or underserved populations, particularly in rural areas, with access to financial services through mobile banking, digital wallets, and online payment systems.

Furthermore, the growth of the digital economy has created a demand for digital skills, leading to individuals acquiring new competencies and enhancing human capital in Nepal. This demand has given rise to coding academies, tech boot camps, and online learning platforms to cater to the need for skilled workers. Lastly, digital capitalism has influenced social and cultural dynamics in Nepal by increasing internet access and social media usage. This has facilitated new forms of communication, information sharing, and social activism. However, it has also brought concerns about privacy, misinformation, and the digital divide, particularly affecting marginalized communities.

Conclusion

The development of digital capitalism in Nepal is still in its early stages, but it holds significant potential for the country's economy and society. The current scenario shows

disparities in digital infrastructure, limited access to reliable internet, and low levels of digital literacy. However, there have been notable advancements in the digital sector, including the rise of fintech companies, mobile banking services, and the government's initiatives to promote digital literacy and entrepreneurship.

To nurture the growth of digital capitalism in Nepal, it is recommended to improve digital infrastructure by expanding internet connectivity, increasing internet speed, and ensuring reliable access in rural areas. Enhancing digital literacy and skills development through training programs and partnerships can empower individuals and businesses to participate in the digital economy. Building trust and cyber security measures are crucial, including enforcing regulations for data protection and conducting awareness campaigns.

Developing a favorable regulatory framework that includes guidelines for data protection, intellectual property rights, and e-commerce transactions is necessary. Collaboration and partnerships between the government, private sector, and academia should be encouraged to foster innovation and entrepreneurship. Efforts to bridge the digital divide and promote digital inclusion in rural areas are also important.

Nepal can overcome the challenges and harness the potential of digital capitalism for inclusive economic growth, job creation, and efficient public services. It requires the collective efforts of stakeholders to create an enabling environment for the development of digital capitalism in the Nepalese context.

Nurturing Digital Capitalism in Nepal

To nurture the development of digital capitalism in Nepal and overcome the challenges, some-measures can be put forward:

The government and private sector should collaborate to invest in improving digital infrastructure, including expanding internet connectivity, increasing internet speed, and ensuring reliable access in rural areas. This will enable businesses and individuals to fully utilize digital platforms and participate in the digital economy.

Efforts should be made to enhance digital literacy and provide training programs to equip individuals with the necessary digital skills. This can be achieved through partnerships between the government, educational institutions, and private organizations to offer training programs on digital technologies, e-commerce, and digital marketing.

Building trust among consumers regarding online transactions and data security is crucial. The government should enforce strict regulations and standards for data protection and cyber-security. Awareness campaigns should be conducted to educate individuals about safe online practices and raise awareness about the security measures implemented by digital platforms.

The government should establish clear and comprehensive regulations and policies to govern the digital sector. This includes creating guidelines for data protection, intellectual property rights, and e-commerce transactions. The regulatory framework should be flexible and adaptable to keep pace with technological advancements.

Collaboration between the government, private sector, and academia is essential to foster innovation and entrepreneurship in the digital space. Establishing incubation centers and providing financial and technical support to startups and digital enterprises can encourage their growth and contribution to the digital economy.

Efforts should be made to bridge the digital divide between urban and rural areas. Initiatives such as providing affordable access to smart-phones, reducing internet costs, and facilitating digital literacy programs in rural communities can promote digital inclusion and ensure that the benefits of digital capitalism reach all segments of society.

References

- Bajracharya, S. N. (2022). *The effective implementation of the Digital Nepal Framework and achievement of all 80 initiatives under the eight sectors, requires enhanced ICT infrastructure and qualified human resources*. Nepal Economic Forum.
- Bhandari, D. R. (2019). Economic Contribution by Digital Economy in Nepal. *Indian Journal of Scientific Research*, 10(1) , 133+.
- Castells, M. (1996). *The Rise of the Network Society: The Information Age: Economy, Society, and Culture*. Wiley-Blackwell .
- David Chandler & Christian Fuchs. (2019). *Digital Objects, Digital Subjects: Interdisciplinary perspectives on capitalism labour and politics in the age of BIG DATA*. U.K: University of Westminster Press.
- DIGITAL, N. (2023). *Datareportal*. Web: <https://datareportal.com/reports/digital-2023-nepal>.
- Ding, X. (2022). *The rise of digital capitalism and social changes it caused: how to develop the digital economy in socialist china*. Shangia University of Finance and economics.
- Fuchs. (2013). Class and exploitation on the Internet. In *Digital labor. The internet as play ground and factory*. New York , 211-224.
- Fuchs, C. (2019). *Beyond Big Data Capitalism, Towards Dialectical Digital Modernity: Reflections on David Chandler's Chapter*. In: Chandler, D. and Fuchs, C. (eds.) *Digital Objects, Digital Subjects: Interdisciplinary Perspectives on Capitalism*. London: University of Westminster Press.

- Gautam, S., Sharma, S., & Bhandari, R . (2020). The Prospect and Challenges of Digital Capitalism in Nepal. *Journal of Research in Business, Economics and Management*, 12(5) , 2077-2101.
- Government of Nepal, Ministry of Communication and Information Technology (2019). *Digital Nepal Framework: Unlocking Nepal's Growth Potential*.
- Kemp, S. (2023). *Digital 2023:Nepal-Data reportal*. <https://datareportal.com/reports/digital-2023-nepal#:> Global digital insights, 13Feb,2023.
- NRI. (2023). *Network Readiness Index*. Oxford. Portulans Institute.
- NTA. (2023). *Telecommunication Indicators* (Vol. 226). Kathmandu, nepal: NTC.
- Pace, J. (2018). The Concept of Digital Capitalism. *Communication Theory* 00 , 1-16.
- Pandey, N. (2019). Startups and E-commerce in Nepal: An Analysis of the Current Trend. *International Journal of Research and Analytical Reviews*, 6(1) , 836-843.
- Pandey, N. (2019). Startups and E-commerce in Nepal: An Analysis of the Current Trend. *International Journal of Research and Analytical Reviews* .
- Pieterse, J. N. (2010). *Development theory: Deconstructions/reconstructions*. SAGE.
- Poudyal, N. (2020). The Future of Digital Economy in Nepal: Challenges and Opportunities. *Journal of Business and Social Review in Emerging Economies*, 6(1) , 158-166.
- Robinson, W. I. (2018). *The next economic crisis: digital capitalism and global police state. Race & Class*.
- Sarker, T., S. Tandukar, and S. R. Dey. . (2021). *Promoting Sustainable Development through Realizing the Demographic Dividend Opportunity in the Digital Economy: A Case Study of Nepal*. ADBI Working Paper 1225. Asian Development Bank Institute Tokyo.
- Shakya, A., & Lamichhane, K. (2021). Exploring the Digital Economy Landscape in Nepal. *Journal of Business and Technology*, 15(1) , 21-32.
- Sharma, B. (2020). Digital Nepal and the Role of Digital Commerce. *Journal of innovation and Entrepreneurship*, 9(1) , 21-32.
- Zuboff, S. (2019). The Age of Surveillance Capitalism: The Fight for a Human Future at the New Frontier of Power. *PublicAffairs* .