

Digitalisation for Inclusive Growth in India

Rajat Sahay Dubey^{1*}, Deepika², Deepa Vohra³ and Shivanshi Singh⁴

¹Research Scholar, School of Business Management, CSJM University, Kanpur, INDIA

²Research Scholar, School of Business Management, CSJM University, Kanpur, INDIA

³Research Scholar, School of Business Management, CSJM University, Kanpur, INDIA

⁴Research Scholar, School of Business Management, CSJM University, Kanpur, INDIA

*Corresponding Author: Rajat Sahay Dubey

Received: 22-06-2024

Revised: 14-07-2024

Accepted: 30-07-2024

ABSTRACT

India's rapid digitalization has the potential to unlock new avenues for inclusive growth, empowering marginalized communities and bridging the digital divide. This paper explores the role of digitalization in fostering inclusive growth in India, highlighting the key initiatives, challenges, and strategies for ensuring that the benefits of digital transformation reach all segments of the population. The paper examines the impact of digitalization on financial inclusion, access to healthcare and education, and the creation of employment opportunities. It also discusses the policy and regulatory frameworks necessary to create an enabling environment for inclusive digitalization, as well as the importance of digital literacy and skills development. The study proposes a multifaceted approach involving government initiatives, private sector partnerships, and community-driven interventions to harness the full potential of digitalization for inclusive growth in India. Key strategies include strengthening digital infrastructure and connectivity, promoting digital literacy and skills development, expanding digital financial inclusion, leveraging digital technologies in healthcare and education, fostering digital entrepreneurship and employment opportunities, and strengthening policy and regulatory frameworks.

Keywords-- Digitalization, Inclusive Growth, Digital Divide, Financial Inclusion, Digital Literacy, Digital Entrepreneurship, India

I. INTRODUCTION

India's economic growth and development have been strongly influenced by its rapid digitalization in recent years. The country has witnessed a remarkable transformation, with the widespread adoption of digital technologies across various sectors, from financial services to healthcare and education. This digitalization wave has the potential to unlock new avenues for inclusive growth, empowering marginalized communities and bridging the digital divide (Beliz et al., 2019). However, harnessing the full potential of digitalization for inclusive growth requires a multifaceted approach that addresses the challenges and

leverages the opportunities presented by this technological revolution.

This paper aims to explore the role of digitalization in fostering inclusive growth in India, highlighting the key initiatives, challenges, and strategies for ensuring that the benefits of digital transformation reach all segments of the population. It will examine the impact of digitalization on various aspects of the economy, such as financial inclusion, access to healthcare and education, and the creation of employment opportunities. Additionally, the paper will discuss the policy and regulatory frameworks necessary to create an enabling environment for inclusive digitalization, as well as the importance of digital literacy and skills development.

II. THE RISE OF DIGITALIZATION IN INDIA

India's digital transformation has been characterized by rapid advancements in Information and Communication Technologies (ICTs), driven by the government's proactive initiatives and the private sector's innovative solutions (Shen et al., 2021). The launch of the Digital India program in 2015, which aimed to transform India into a digitally empowered society and knowledge economy, has been a significant catalyst in this process.

One of the key drivers of digitalization in India has been the widespread adoption of mobile phones and the internet. The country has witnessed a surge in internet penetration, with over 700 million internet users as of 2022, making it the second-largest internet market in the world (IAMAI, 2022). This has been accompanied by the proliferation of affordable smartphones, which has enabled even the most marginalized communities to access digital services and information (Shen et al., 2021).

Furthermore, the government's push for digital payments, through initiatives like the Unified Payments Interface (UPI) and the Aadhaar biometric identification system, has revolutionized the way financial transactions are conducted in the country. The UPI platform, in

particular, has become a game-changer, facilitating seamless and secure digital payments, even in the most remote areas (Beliz et al., 2019).

Digitalization has also transformed the delivery of public services, with the introduction of e-governance initiatives and the integration of digital technologies in areas like healthcare, education, and agriculture. The emergence of digital platforms and mobile applications has made it easier for citizens to access government services, track their applications, and provide feedback, thereby enhancing transparency and accountability (Shen et al., 2021).

III. REVIEW OF LITERATURE

Jindal M. (2021). As the suggestions, these banks should provide more types of services because only 57.05% provided by these banks, especially online banking must be provided by these banks.

Jindal M. and Srivastava S., (2021). Urban Co-operative Bank needs to improve the parking facility, interest rate on the loan, and online banking services.

Srivastava S. and Jindal M. (2021). Bank contributes a crucial role in the economic growth of a nation by inserting and steering all the financial services. Earning quality is an essential element of banks to perform their financial obligations strongly.

Dr. Chandra V., Srivastava S. and Jindal M. (2021). In terms of management efficiency also public sector banks are need to put the efforts to enhance their management capabilities

Goswami D. and Jindal M. (2021). Primary Agriculture Credit Society needs to be aware of farmers in their society. For this, PACS should do the campaigns for the awareness of farmers.

Garg V. and Jindal M. (2021). Sugarcane production of the district is increasing year after year the firm has to improve its basic production and sugar intake capacity through which the mill will be able to reduce its working period time of crushing.

Dr. Saxena S. and Jindal M. (2021). Banks need to provide more and efficient service related information to the customers, reduce the service charges, improve the resolving procedure.

Jindal M. (2020). Customer satisfaction is also good on the "Infrastructure and Instruments of Bank", "Staff Competency" and "Financial Activities".

Jindal M. and Dr. Sharma V.L. (2020). It has been found that online banking playing an important role in the Covid-19 period to protect people.

Jindal M. and Dr. Sharma V.L. (2020). People are more satisfied with the e-services and facilities provided by SBI Bank.

Arya N. and Jindal M. (2020). Digital technological improvements are needed at the cooperative banks of Uttarakhand.

Dr. Chandra V., Srivastava S. and Jindal M. (2020). After analyzing of the study of demonetisation it is observed that the intention of 2016 demonetization was Nobile for making developed economy.

Jindal M. (2019). E-Banking services are as important services as traditional banking services.

Dr. Saxena S. and Jindal M. (2019). Like other business organizations, the banks develop innovative sales techniques and advanced marketing tools.

Prof. Joshi C.S., Dr. Jindal M. (2022) Indian Rural Cooperative banks are providing mostly services according to rural people but some services aren't providing according to rural people which are non providing of online banking services.

Dr. Saxena S, Dr. Jindal. M. (2022). Jio customers are 72.24% satisfied, Airtel customers are 71.10 % satisfied, VI customers are 60.05% satisfied during 2021.

Dr. Sharma, V.L., and Dr. Jindal, M. (2022). Almora urban cooperative bank has 11.94% owner's capital, Dehradun district co-operative bank, Kurmanchal urban co-operative bank, and Almora urban co-operative bank have more than 80% finance from the deposits and earn 8.93%, 8.71% and 10.03% net profit respectively

Dr. Sharma, V.L., Dr. Jindal, M., and Bajpai, M. (2022). As of 31/03/2019, Uttarakhand State Co-operative Bank's net profit is 130885 rupees, Nainital District Co-operative Bank's net profit is 82528.9 rupees, Dehradun District Co-operative Bank's net profit is 85536 rupees Kurmanchal Urban Co-operative Bank's net profit is 171166.96 rupees and Almora Urban Co-operative Bank's net profit is 315574.1 rupees.

Jindal, S., Jindal, M. (2022). Today's youth is attracted towards this glitz. Due to this, quality determination is no longer an important issue, it is based on interest. It has become a compulsion for the writer to make literature according to the interest of the reader.

Mrs. G. Vinu Priya, Dr. Jothilakshmi R., Dr. Chithra S. M., Ramasamy V., Kumar Dhilip K., Dr. Jindal M. (2023). Wavelet Transform is a very effective method for identifying non-stationary vibration signals. Super oscillating signals of varying architectures may be analyzed using CWT with a variety of mother wavelets.

Jindal, M., Deepika. (2024). Maintaining a healthy future and protecting the environment depend on sustainable e-waste management. E-waste can be made less damaging by reducing, reusing, and recycling electronic equipment and components. Businesses may reduce emissions and preserve natural resources through cooperation, education, technology breakthroughs, and international cooperation.

Jindal, M., and Srivastava, S. (2021). Co-operative banks fulfil the over 50% rural credit need of total rural credit need in India. These banks are small size mostly local area banks but works of these banks are big. Rural co-operative banks establish with the basic objective of providing banking services to rural people and farmer.

Pokhariya, P., and Jindal, M. (2022). Migration from rural to urban has made a positive impact on the lives of migrants due to the convenience of purchasing goods from the market, availability of better online and offline banking services, better financial situation & savings due to migration, and positive impact on self-employment & Business.

Jindal, M. (2022). Entrepreneurship can also be defined in terms of risk and uncertainty. Entrepreneurship refers to a process of innovation and subsequent investment which will further lead to expansion in the market either for a new product or a new technique.

Jindal, S. and Dr. Jindal, M. (2022). Small traders of India, who are called the mainstream of Indian economy, are using their local language in business, in which Hindi is a major language. They are using Hindi to talk to their distributors, factory and customers etc. At the same time, the traders have accepted that some transactions are done in other languages also but the local language is the most important in business and the local language has a positive impact on business.

Jindal S., Dr. Jindal M. (2023). The institutes that have mushroomed to fill the gap in educational institutions have put a question mark on the entire educational structure of the country. Lakhs of rupees are charged from students for admission in these institutes in the name of capitation fees and yet they receive half-baked education that provides them with incomplete qualifications, on the basis of which they are not able to participate in any competition. Due to privatization, more money has to be spent on education. But the quality is not improving.

Dr. Jindal M. (2023). 12 public, 20 private and many other banks are providing digital banking services in India. UPI services also depend on commercial banking services.

Prof. Singh, N., and Dr. Jindal, M. (2024). 15 Uttarakhand state co-operative bank branches are working in Uttarakhand. The main branch in Haldwani is the oldest branch of this bank and during the year 2018-19 main branch has gained the highest profit out of all branches.

Dr. Jindal, M Deepika (2024). When a product reaches the end of its life, its materials are kept within the economy wherever possible thanks to recycling. These can be productively used again and again, thereby creating further value.

Jindal, M., and Dr. Sharma, V.L. (2021). Online banking includes internet banking, mobile banking, online work through debit and credit card and any other

bankrelated work done through the use of the internet. Nowadays online banking work has significant increase due to banking from home, internet facility and mobile devices availability have increased. In the year of 2018-19, 37% transaction was online of SBI and it was a big part of online transaction in the future online banking may take place of the branch banking. e.g. Phone pay, Google Pay, Pay tm, BHIM App, PNB Mobile Banking, SBI Yona App, PNB Retail Banking, Kotak Mobike Banking, Axis Bank Mobile Banking, HDFC Mobile Banking and etc.

Jindal, M., and Garg, V. and Goswami, D., (2021). It is not argumentative that Banks are high help in the growth of the economy by providing it invaluable services. We can't be able to imagine an online Share Market such as a Stock market without banking services and banks are the main way of monetary transaction.

IV. RESEARCH METHODOLOGY

This paper is based on the secondary data collected from the various websites, research paper and reports. The main aim of this paper is to describe the impact of digitalization for inclusive growth in India. This paper describe the The Impact of Digitalization on Inclusive Growth, Challenges and Barriers to Inclusive Digitalization, Digital Divide and Infrastructure Gaps, Lack of Digital Literacy and Skills, Regulatory and Policy Challenges, Strategies for Harnessing Digitalization for Inclusive Growth, Strengthening Digital Infrastructure and Connectivity, Promoting Digital Literacy and Skills Development, Strengthening Digital Financial Inclusion, Leveraging Digital Technologies in Healthcare and Education, Fostering Digital Entrepreneurship and Employment Opportunities, Strengthening Policy and Regulatory Frameworks

V. RESULTS AND DISCUSSION

The Impact of Digitalization on Inclusive Growth

Digitalization has the potential to drive inclusive growth in India by addressing the challenges faced by marginalized communities and creating new opportunities for their economic and social empowerment.

Financial Inclusion

One of the most significant impacts of digitalization has been its contribution to financial inclusion. The proliferation of digital payment platforms, mobile banking, and digital lending has made financial services more accessible to the unbanked and underserved populations (Beliz et al., 2019). The Pradhan Mantri Jan Dhan Yojana (PMJDY), a flagship financial inclusion program, has played a crucial role in this regard, opening over 450 million bank accounts for the previously unbanked (PMJDY, 2023).

The use of digital technologies, such as mobile wallets and biometric authentication, has enabled the delivery of financial services to remote and rural areas, where traditional brick-and-mortar banking infrastructure was often lacking (KPMG, 2021). This has not only increased access to credit, savings, and insurance but also empowered individuals to participate in the formal financial system, leading to improved financial literacy and economic resilience.

Moreover, the integration of digital platforms with government welfare schemes, such as the Direct Benefit Transfer (DBT) program, has ensured the direct and efficient delivery of subsidies and social security benefits to the intended beneficiaries, reducing leakages and promoting financial inclusion (Beliz et al., 2019).

Access to Healthcare and Education

Digitalization has also transformed the delivery of healthcare and education services, making them more accessible and inclusive. The use of telemedicine and mobile health applications has enabled the provision of medical consultations and diagnosis to individuals in remote and underserved areas, overcoming the challenges of limited infrastructure and the shortage of healthcare professionals (Shen et al., 2021).

Similarly, the integration of digital technologies in the education sector has made learning more accessible and engaging for students, especially those from marginalized communities. Online learning platforms, virtual classrooms, and digital educational content have expanded the reach of quality education, even in areas with limited access to traditional educational institutions (Shen et al., 2021).

The government's initiatives, such as the National Digital Health Mission and the PM e-Vidya program, have further bolstered the integration of digital technologies in the healthcare and education sectors, ensuring that the benefits of these services reach the most vulnerable segments of the population (MoHFW, 2020; MHRD, 2020).

Employment and Entrepreneurship Opportunities

Digitalization has also created new avenues for employment and entrepreneurship, especially for the youth and marginalized communities. The growth of the gig economy, fueled by digital platforms and e-commerce, has provided flexible and accessible earning opportunities for individuals who may have faced barriers in traditional employment (KPMG, 2021).

Furthermore, the rise of digital entrepreneurship has enabled individuals, even in remote areas, to start and scale their businesses by leveraging digital tools and platforms. This has empowered the traditionally underrepresented communities, such as women and rural entrepreneurs, to participate in the formal economy and contribute to inclusive growth (Shen et al., 2021).

The government's initiatives, such as the Startup India program and the Digital India Startup Hub, have further supported the growth of digital entrepreneurship, providing access to funding, mentorship, and infrastructure for budding entrepreneurs (Startup India, 2023).

Challenges and Barriers to Inclusive Digitalization

While the potential of digitalization to drive inclusive growth is immense, there are several challenges and barriers that must be addressed to ensure that the benefits of digital transformation reach all segments of the population.

Digital Divide and Infrastructure Gaps

One of the most significant challenges is the persistent digital divide, where certain sections of the population, particularly those in rural and remote areas, have limited access to digital infrastructure and technologies (Shen et al., 2021). This includes the lack of reliable internet connectivity, affordable devices, and digital literacy, which hinders their ability to participate in the digital economy and access digital services.

The uneven distribution of digital infrastructure across the country has created disparities in the availability and quality of services, with urban areas generally better served compared to rural and remote regions (IAMAI, 2022). Bridging this digital divide and ensuring equitable access to digital technologies is crucial for achieving inclusive growth.

Lack of Digital Literacy and Skills

Another critical barrier to inclusive digitalization is the lack of digital literacy and skills among the marginalized communities. Many individuals, especially those from low-income and rural backgrounds, lack the necessary skills and knowledge to effectively utilize digital technologies and services (Shen et al., 2021). This hinders their ability to participate in the digital economy, access online services, and engage in digital entrepreneurship.

Addressing this skills gap through comprehensive digital literacy programs, as well as integrating digital skills development into the education system, is essential for empowering these communities and enabling their active participation in the digital transformation.

Regulatory and Policy Challenges

The successful implementation of inclusive digitalization also requires a robust regulatory and policy framework. Challenges such as data privacy and security concerns, the need for strong cyber-security measures, and the regulation of emerging technologies like artificial intelligence and blockchain, must be addressed to build trust and confidence in the digital ecosystem (Shen et al., 2021).

Additionally, the alignment of policies and regulations across different sectors (e.g., finance, healthcare, education) is crucial to ensure a coherent and

coordinated approach to digital transformation, thereby maximizing the benefits for the underserved communities.

Strategies for Harnessing Digitalization for Inclusive Growth

To harness the full potential of digitalization for inclusive growth in India, a multifaceted approach is required, involving government initiatives, private sector partnerships, and community-driven interventions.

Strengthening Digital Infrastructure and Connectivity

Enhancing digital infrastructure and ensuring universal access to reliable and affordable internet connectivity is a critical first step. The government's initiatives, such as the BharatNet project, which aims to provide high-speed broadband connectivity to all gram panchayats (village councils), are essential in this regard (BBNL, 2023).

Additionally, public-private partnerships and innovative models, like community-owned network solutions, can help expand the reach of digital infrastructure to underserved areas (Shen et al., 2021). This, coupled with the adoption of emerging technologies like 5G and fiber-optic networks, can significantly improve the availability and quality of digital services.

Promoting Digital Literacy and Skills Development

Addressing the digital skills gap requires a comprehensive approach that integrates digital literacy programs into the education system and provides targeted training and capacity-building initiatives for marginalized communities. The government's initiatives, such as the National Digital Literacy Mission and the Pradhan Mantri Gramin Digital Saksharta Abhiyan (PMGDISHA), are steps in the right direction (MeitY, 2023; PMGDISHA, 2023).

Furthermore, collaborations between the government, private sector, and civil society organizations can leverage community-based models, such as digital literacy centers and targeted skilling programs, to reach the most vulnerable segments of the population (Shen et al., 2021).

Strengthening Digital Financial Inclusion

Expanding the reach of digital financial services, such as mobile banking, digital payments, and micro-lending, is crucial for promoting financial inclusion. The government's initiatives, like the Unified Payments Interface (UPI) and the Pradhan Mantri Jan Dhan Yojana (PMJDY), have made significant progress in this direction (PMJDY, 2023).

However, further efforts are needed to ensure the seamless integration of these digital financial services with the existing banking infrastructure, as well as the development of innovative solutions tailored to the needs of the underserved communities (KPMG, 2021). Collaboration between the government, financial

institutions, and fintech companies can help drive this agenda.

Leveraging Digital Technologies in Healthcare and Education

The integration of digital technologies in the healthcare and education sectors can significantly improve access and quality of services for marginalized communities. Initiatives like telemedicine, mobile health applications, and online learning platforms should be further strengthened and scaled up, with a focus on reaching the most remote and underserved areas (Shen et al., 2021).

The government's programs, such as the National Digital Health Mission and the PM e-Vidya initiative, along with public-private partnerships, can play a crucial role in ensuring that the benefits of digital transformation in these sectors are equitably distributed (MoHFW, 2020; MHRD, 2020).

Fostering Digital Entrepreneurship and Employment Opportunities

Empowering marginalized communities to participate in the digital economy as entrepreneurs and employees is essential for driving inclusive growth. Initiatives that support digital entrepreneurship, such as incubators, accelerators, and access to digital tools and platforms, can enable individuals from diverse backgrounds to start and scale their businesses (Shen et al., 2021).

Additionally, the gig economy and the rise of digital platforms can provide flexible and accessible employment opportunities for the youth and other marginalized groups. Ensuring fair and inclusive practices in the digital platform economy, along with the provision of social security and skill-building support, can further strengthen the potential of digitalization to create inclusive employment opportunities.

Strengthening Policy and Regulatory Frameworks

Effective policy and regulatory frameworks are crucial for creating an enabling environment for inclusive digitalization. This includes addressing concerns around data privacy, cyber-security, and the governance of emerging technologies, while ensuring that the benefits of digital transformation are equitably distributed (Shen et al., 2021).

The alignment of policies across different sectors, such as finance, healthcare, and education, can help ensure a coherent and coordinated approach to digital transformation. Additionally, the active participation of marginalized communities in the policymaking process can help ensure that their needs and concerns are adequately addressed.

VI. CONCLUSION

Harnessing the power of digitalization for inclusive growth in India is a pressing challenge that requires a multifaceted approach. The rapid advancements in digital technologies have the potential to unlock new avenues for economic and social empowerment, particularly for the marginalized communities. However, addressing the persistent digital divide, skill gaps, and regulatory challenges is essential to ensure that the benefits of digital transformation are equitably distributed.

By strengthening digital infrastructure, promoting digital literacy, expanding financial inclusion, leveraging digital technologies in healthcare and education, fostering digital entrepreneurship, and implementing robust policy and regulatory frameworks, India can harness the potential of digitalization to drive inclusive growth and development. This will not only benefit the underserved communities but also contribute to the country's overall economic and social progress, creating a more equitable and prosperous future for all.

REFERENCES

- [1] Arya N. & Jindal M. (2020). Human migration, digital flowers market and banking services of Uttarakhand. *International Research Journal of Commerce, Arts and Science*, 11(12), 23-27.
- [2] Beliz, G., Basco, A. I. & de Azevedo, B. (2019). Harnessing the opportunities of inclusive technologies in a global economy. *Economics*, 13(1), 20190006.
- [3] Bharat Broadband Network Limited (BBNL). (2023). *BharatNet project*. Retrieved from: <https://www.bbnl.nic.in/>.
- [4] Dr. Chandra V., Srivastava S. & Jindal M. (2020). Impact of demonetization on the various sectors of Indian economy. *International Journal of Engineering and Management Research*, 10(6), 130-136.
- [5] Dr. Chandra V., Srivastava S. & Jindal M. (2023). Performance of digitalized private and public banks in pre and post demonetization period. *Dogo Rangsang Research Journal*, 11(04), 109-116.
- [6] Dr. Jindal M. (2023). *History of government sector banks in India*. Shree Publication, Banking and Economics, 978-00-000000-0-0.
- [7] Dr. Jindal & M Deepika. (2024). *Waste recycling and its relation to sustainable development, perspectives on sustainable business and marketing*. (Editors: Dr. Mayank Jindal Dr. Vivek Singh Sachan Prof. Sudhanshu Pandiya, Prof. Anshu Yadav and Dr. Sudesh Srivastava). Red Unicorn Publication. pp. 93-95, ISBN: 978-93-5879-064-1.
- [8] Dr. Jindal, M. (2023). *Banking and economics*. Shree Publication, ISBN: 978-00-000000-0-0. (PDF) Banking and Economics (researchgate.net)
- [9] Dr. Jindal, M. (2023). *Customer satisfaction in co-operative sector banks of Uttarakhand*. Infinity Publication, ISBN: 978-1-312-72216-3. https://www.researchgate.net/publication/369825178_CUSTOMER_SATISFACTION_IN_CO-OPERATIVE_SECTOR_BANKS_OF_UTTARAKHAND.
- [10] Dr. Jindal, M., Dr. Singh Sachan, V., Prof. Pandiya, S., Prof. Yadav, A. & Dr. Srivastava, S. (2024). *Sustainable business and information technology*. Infinity Publication, ISBN: 978-93-89476-19-4.
- [11] Dr. Jindal, M., Dr. Singh Sachan, V., Prof. Pandiya, S., Prof. Yadav, A. & Dr. Srivastava, S. (2024). *Sustainable business practices in finance and human resource management*. Red Unicorn Publication, ISBN: 978-93-5809-855-6.
- [12] Dr. Jindal, M., Dr. Singh Sachan, V., Prof. Pandiya, S., Prof. Yadav, A. & Dr. Srivastava, S. (2024). *Perspectives on sustainable business and marketing*. Red Unicorn Publication, ISBN: 978-93-5879-064-1.
- [13] Dr. Saxena S & Dr. Jindal. M. (2022). Service quality of telecommunication network in India. *RJPP*, XX(I), 36-46. https://www.researchgate.net/publication/362159916_Service_Quality_of_Telecommunication_Network_in_India.
- [14] Dr. Saxena S. & Jindal M. (2019). Customer satisfaction on banking services in Indian growing economy nainital district. *International Journal of Engineering and Management Research*, 9(4), 74-77.
- [15] Dr. Saxena S. & Jindal M. (2021). Service quality of government bank in rural area of Uttarakhand (India). *International Journal of Engineering and Management Research*, 11(5), 169-174.
- [16] Dr. Saxena, S. & Dr. Jindal, M. (2022). *Concepts of business and economics*. Red'shine Publication, pp. 01-119, ISBN: 978-93-94727-79-3. https://www.researchgate.net/publication/363031061_Concepts_of_Business_and_Economics.
- [17] Dr. Sharma, V.L. & Dr. Jindal, M. (2022). Financial ratio analysis of co-operative banks in Uttarakhand. *Journal of Kavikulaguru Kalidas Sanskrit University, Ramtek, IX(II)*, 969-980.
- [18] Dr. Sharma, V.L., Dr. Jindal, M. & Bajpai, M. (2022). Financial statement analysis of co-

- operative bank in Uttarakhand. *RJPSS*, XLVII(1), 129-136.
- [19] Dr. Singh Sachan, V. & Dr. Jindal, M. (2022). *Contribution of MSME sector towards growth of 5-trillion Indian economy*. Shivalik Publisher, ISBN: 978-93-919214-86-9.
- [20] Garg V. & Jindal M. (2021). An analytical study of production and storage capacity of sugar mills in bulandshahr district of Uttar Pradesh. *Research Journal of Philosophy and Social Sciences*, XLVI(2), 316-323.
- [21] Goswami D. & Jindal M. (2021). Awareness of farmers about the primary agriculture credit societies (With special reference of Uttar Pradesh and Uttarakhand). *International Journal of Engineering and Management Research*, 11(3), 209-212.
- [22] https://www.researchgate.net/publication/365893612_Effect_of_Migration_on_the_Migrated_People_of_Uttarakhand.
- [23] https://www.researchgate.net/publication/365893624_Innovations_in_Business_and_Management.
- [24] IAMAI. (2022). India Internet 2022. *Internet and mobile association of India*. Retrieved from <https://core.ac.uk/download/pdf/382871343.pdf>.
- [25] Jindal M. (2019). Customer satisfaction on private and public banking services in Uttarakhand. *Shodh Manthan*, X(Sp. Issue. 9), 141-145.
- [26] Jindal M. (2021). Services of co-operative Banks of Uttarakhand. *Shodh Sarita*, 08(29), 190-194.
- [27] Jindal M. & Dr. Sharma V.L. (2020). Service quality of two biggest banks of Indian government. *Shodh Sarita*, 7(27), 213-220.
- [28] Jindal M. & Dr. Sharma V.L. (2020). Usability of online banking in India during covid-19 pandemic. *International Journal of Engineering and Management Research*, 10(6), 69-72.
- [29] Jindal M. & Srivastava S. (2021). Customer satisfaction of almora urban co-operative bank. *Vidyabharati International Interdisciplinary Research Journal (Special Issue)*, 2620-2625.
- [30] Jindal M. (2020). Customer satisfaction of nainital district co-operative bank. *Shodh Sanchar Bulletin*, 10(39), 160-167.
- [31] Jindal S. & Dr. Jindal M. (2023). *Education transforming into a business*. Shivalik Publication, Contribution of MSME Sector Towards Growth of 5-Trillion Indian Economy, 978-93-91214-14-2.
- [32] Jindal, M. (2022). *New era entrepreneurship and its impact on the Indian economy, contemporary issues and challenges in meeting the triple bottom line during industry 4.0: A multi domain perspective*. (Editors: Dr. Joshi, R., Dr. Upreti, H., Dr. Joshi, P. and Dr. Kumar, M.), Taurean Publications, pp. 63-73, ISBN: 978-93-95378-00-0.
https://www.researchgate.net/publication/365893342_Contemporary_Issues_And_Challenges_In_Meeting_The_Triple_Bottom_Line_During_Industry_4_0_A_Multi_Domain_Perspective.
- [33] Jindal, M. & Dr. Sharma, V.L. (2021). *Banks, banking laws, services, performance through camels model and customers of banks in India*. Red'shine Publication, UK, pp. 1-130. ISBN: 978-1-312-60837-5.
https://www.amazon.in/gp/product/1312608374/ref=ewc_pr_img_1?smid=A15DBATYR506U3&psc=1.
- [34] Jindal, M., Garg, V. & Goswami, D. (2021). *Research book on banks, sugar mills and the primary agricultural credit societies*. Red'shine Publication, pp. 238, ISBN: 978-93-91479-61-9.
https://www.amazon.in/gp/product/9391479618/ref=ewc_pr_img_2?smid=A15DBATYR506U3&psc=1.
- [35] Jindal, M. & Srivastava, S. (2021) *Co-operative banks in uttarakhand. business research and innovation*. (Editors: Dr. Debasis Chanda, Dr. Amrita Sen Gupta, Dr. Debaditya Mohanti), Excel India Publishers, Issue 1, page no. 479-482, ISBN 978-81-952843-7-5.
https://www.researchgate.net/publication/358200322_Co-operative_Banks_in_Uttarakhand.
- [36] Jindal, M. & Deepika. (2024). E-waste recycling in Delhi NCR. *International Journal of Engineering and Management Research*, 2(14), 178-180.
- [37] Jindal, S. & Jindal, M. (2022). हिन्दी साहित्य की तकनीकी की गुणवत्ता का आंकलन. अपनी माटी, अंक- 45. Available at: https://www.apnimaati.com/2022/12/blog-post_95.html.
- [38] KPMG. (2021). *Inclusive digital transformation: driving equitable growth in India*. KPMG India. Retrieved from <https://assets.kpmg/content/dam/kpmg/in/pdf/2021/07/inclusive-digital-transformation-india.pdf>.
- [39] Ministry of Electronics and Information Technology (MeitY). (2023). *National Digital Literacy Mission*. Retrieved from <https://ndlm.in/>.
- [40] Ministry of Health and Family Welfare (MoHFW). (2020). *National Digital Health Mission*. Retrieved from [https://www.nhp.gov.in/national-digital-health-mission_\(ndh\)](https://www.nhp.gov.in/national-digital-health-mission_(ndh)).

- [41] Ministry of Human Resource Development (MHRD). (2020). *PM e-Vidya*. Retrieved from <https://pmevidya.nta.ac.in/>.
- [42] Mrs. G. Vinu Priya, Dr. Jothilakshmi R., Dr. Chithra S. M., Ramasamy V., Kumar Dilip K. & Dr. Jindal M. (2023). A comprehensive study of fourier and wavelet transform: features & applications. *Journal of Data Acquisition and Processing*, 38(1), 4741-4753.
- [43] Pokhariya, P. & Jindal, M. (2022). Effect of migration on the migrated people of Uttarakhand, *Business Research and Innovation*. pp. 75-80, (Editors: Dr. Debasis Chanda, Dr. Amrita Sen Gupta, Dr. Debaditya Mohanti), Bharti Publications, ISBN: 978-93-94779-36-5.
- [44] Pradhan Mantri Gramin Digital Saksharta Abhiyan (PMGDISHA). (2023). *PMGDISHA - Digital Literacy for Rural India*. Retrieved from <https://www.pmgdisha.in/>.
- [45] Pradhan Mantri Jan Dhan Yojana (PMJDY). (2023). *PMJDY - Empowering the Unbanked*. Retrieved from <https://www.pmjdy.gov.in/>.
- [46] Prof. Joshi C.S. & Dr. Jindal M. (2022). Service quality of rural co-operative sector banks in India. *Shodhasamhita*, IX(II), 135-150. https://www.researchgate.net/publication/362159982_Service_Quality_of_Rural_Co-operative_Sector_Banks_in_India.
- [47] Prof. Pandiya, P. & Dr. Jindal, M. (2022). *Innovations in business and management*. Shree Publication. ISBN: 978-93-90674-55-8.
- [48] Prof. Singh, N. & Dr. Jindal, M. (2024). *An introduction of uttarakhand state cooperative bank. Sustainable business and information technology*. (Editors: Dr. Mayank Jindal Dr. Vivek Singh Sachan Prof. Sudhanshu Pandiya, Prof. Anshu Yadav and Dr. Sudesh Srivastava). Infinity Publication Pvt. Ltd, pp. 200-203. ISBN: 978-93-92917-88-2.
- [49] Shen, Y., Hu, W. & Hueng, C. J. (2021). Digital financial inclusion and economic growth: a cross-country study. *Procedia Computer Science*, 187, 218-223.
- [50] Shubhi Jindal & Dr. Mayank Jindal. (2022). *हिन्दी भाषा का व्यापार पर प्रभाव*. Shree Publisher, Innovation in Business and Management, 978-93-90674-55-8.
- [51] Srivastava S. & Jindal M. (2021). Analysis of the earning quality of selected public and private sector banks. *Sodh Sanchar Bulletin*, 11(41), 204-208.
- [52] Startup India. (2023). *Startup India Hub*. Retrieved from <https://www.startupindia.gov.in/>.