DIGITIZATION A WAY FOR SUSTAINABLE INNOVATION WITH SPECIAL REFERENCE TO GROWTH IN DIGITAL PAYMENTS

Ramakanth Dasari[1], Prof. R.Sivarama Prasad[2]

1. Research scholar, ICSSR Doctoral Fellow, department of commerce and business administration, Acharya Nagarjuna University, Guntur, Ramakanth935@gmail.com

2. Professor, Department of commerce and business administration, Acharya Nagarjuna University, Guntur.

Abstract:

In the ever-evolving landscape of the modern world, the symbiotic relationship between technological advancements and sustainable innovation has emerged as a pivotal force driving economic, social, and environmental progress. The digital revolution, a hallmark of the 21st century, has ushered in an era of unparalleled connectivity and transformative possibilities.Sustainable innovation is guided by a long-term outlook that aims to create positive impacts over extended periods, considering the needs of present and future generations.Digital payment methods offer unparalleled convenience, allowing users to make transactions anytime, anywhere, as long as they have an internet connection.Sustainable innovation takes a comprehensive approach, considering the interconnectedness of economic, social, and environmental factors, rather than focusing solely on technological advancements.India retains the top spot with 25.5bn real-time payments transactions, followed by China with 15.7bn transactions. Digitization can be the part of sustainable innovation.

Keywords: - Digitization, Sustainable Innovation, Digital payments, Growth of digital payments

Introduction:

In the ever-evolving landscape of the modern world, the symbiotic relationship between technological advancements and sustainable innovation has emerged as a pivotal force driving economic, social, and environmental progress. The digital revolution, a hallmark of the 21st century, has ushered in an era of unparalleled connectivity and transformative possibilities. At the heart of this revolution lies digitization, a multifaceted process that involves the conversion of analog data into digital formats, thereby enabling a plethora of industries to revolutionize their operational paradigms. This article delves deep into the intricate interplay between digitization and sustainable innovation, shedding light on the profound impact of digitization, with a specific focus on the exponential growth witnessed in the realm of digital payments.

The Concept of Digitization and Sustainable Innovation: Digitization, in essence, encapsulates the conversion of traditional analog practices and processes into digital formats, fostering efficiency, accessibility, and interconnectedness. It serves as a conduit for transformative change, transcending geographical boundaries and enabling novel approaches to longstanding challenges. Sustainable innovation, on the other hand, embodies the practice of harnessing advancements to engender positive and lasting impacts across economic, social, and environmental dimensions. The amalgamation of these two concepts sets the stage for a harmonious coexistence between technology-driven progress and the preservation of our planet's resources for future generations.

Digitization

Digitization as a Catalyst for Sustainable Innovation: The intricate relationship between digitization and sustainable innovation is underscored by their mutual reinforcement. As organizations embark on the journey of digitization, they often encounter opportunities to reinvasion their processes, products, and services in ways that are not only technologically advanced but also environmentally and socially conscious. From optimizing supply chains and reducing waste to enhancing energy efficiency and promoting inclusivity, digitization presents a canvas upon which sustainable innovation can be painted with remarkable precision.

The Digital Payment Revolution: A compelling testament to the transformative potential of digitization lies in the exponential growth of digital payments. Over the past decade, the financial landscape has undergone a seismic shift, transitioning from traditional cash-centric systems to the digital realm. The proliferation of smartphones, coupled with the ubiquity of the internet, has paved the way for innovative digital payment solutions, ranging from mobile wallets and contactless payments to crypto currencies and block chain-based transactions. This evolution has not only revolutionized the way we conduct financial transactions but has also catalyzed financial inclusion, empowering underserved populations to partake in the formal economy.

The Nexus of Digital Payments and Sustainability: The surge in digital payments intertwines seamlessly with the principles of sustainability. The reduced reliance on physical currency translates to lower carbon emissions associated with cash production, transportation, and disposal. Furthermore, digital payments engender transparency and traceability, mitigating the risks of fraud, corruption, and money laundering. The data generated by digital transactions also holds the potential to inform policy decisions, facilitate targeted interventions, and drive evidence-based development strategies, thereby fostering social and economic progress.

OBJECTIVES

- To review the features of Sustainable innovation in comparison with digitization
- To measure the growth in the payments sector after the inclusion of digitization

Literature Review

(A.MartinaFranciska, 2017), the Government of India forced the people directly or indirectly to do all commercial transactions via Digital mode. The common people started to move from traditional payment system towards Digital Payments systems which ensured safe, secure and convenience. With giant technological leaps in the smart phone and easy internet access has led Indian market to accept Digital Payments. The percentage of the digital payments through other modes is also increasing in a significant speed.

(Umapathi P, 2019) The Stakeholders are any parties that have personal stake in the accomplishment of the system and are influenced by the system and, subsequently, assume a basic job in guaranteeing the achievement of the systems. Normally, an electronic payment system isn't operated by one party only, however by different gatherings (partners) that are deliberately orchestrated in an arranged way by some pre-decided standards Digital payment system must involve three types of stake holders. 1. The payer (Consumer) 2. The Payee (Business or Merchant) 3. A financial network (with which both payer and payee have association)

(Dr.M. Somasundaram,2020), The study was conducted in Tamil Nadu and the data collected from 95 consumers by Google form survey in the month of May 2020. The Percentage, average, standard deviation, range, F-test, cross table, Chi-square test, Regression analysis and Factor analysis methods were applied on the data to get the results which are analysed. The study concluded that the digital payment system should be strengthened to improve safety and security of financial transactions of consumers and it must be simplified and make it user friendly.

Descriptive analysis

Sustainable Innovation

Sustainable innovation encompasses a range of features and characteristics that distinguish it from traditional innovation processes. Here are some key features of sustainable innovation:

1. **Long-Term Perspective**: Sustainable innovation is guided by a long-term outlook that aims to create positive impacts over extended periods, considering the needs of present and future generations.
2. **Environmental Responsibility**: It emphasizes minimizing negative environmental impacts by reducing resource consumption, waste generation, and pollution throughout a product's lifecycle.
3. **Social Equity and Inclusion**: Sustainable innovation promotes inclusivity, equity, and social justice, ensuring that the benefits of innovation are accessible to all segments of society, including marginalized and underserved populations.
4. **Economic Viability**: It seeks to balance economic growth and profitability with responsible resource allocation, recognizing that sustainable practices can drive efficiency, cost savings, and new business opportunities.
5. **Holistic Approach**: Sustainable innovation takes a comprehensive approach, considering the interconnectedness of economic, social, and environmental factors, rather than focusing solely on technological advancements.
6. **Collaborative Partnerships**: It often involves collaboration among diverse stakeholders, including businesses, governments, academia, civil society, and local communities, to co-create solutions that address complex challenges.
7. **Systems Thinking**: Sustainable innovation employs systems thinking to understand the broader context in which innovations operate, identifying potential unintended consequences and optimizing overall system performance.
8. **Circular Economy Principles**: It embraces circular economy principles, aiming to design products, services, and processes that minimize waste, promote recycling, and encourage the repurposing of materials.
9. **Resilience and Adaptability**: Sustainable innovation anticipates and prepares for future uncertainties, seeking to create solutions that are resilient and adaptable in the face of changing conditions.
10. **Ethical Considerations**: It incorporates ethical considerations into the innovation process, addressing issues such as privacy, data security, and potential social or environmental harm.

11. **User-Centered Design**: User needs and preferences are central to sustainable innovation, ensuring that solutions are user-friendly, culturally sensitive, and responsive to real-world requirements.
12. **Policy and Regulation Alignment**: Sustainable innovation aligns with and often drives the development of supportive policies, regulations, and standards that encourage responsible business practices and societal benefits.
13. **Transparency and Accountability**: It emphasizes transparency in decision-making and accountability for the impacts of innovation, fostering trust among stakeholders and promoting responsible behavior.
14. **Resource Efficiency**: Sustainable innovation aims to optimize the use of resources, including energy, materials, and water, to reduce waste and minimize the carbon footprint of products and processes.
15. **Innovation Ecosystems**: It thrives within diverse innovation ecosystems, leveraging networks of organizations, research institutions, startups, and intermediaries to foster creativity and knowledge exchange.

Digital payments

Digital payments have become an integral part of modern financial transactions, offering convenience, security, and efficiency. Here are some key features of digital payments:

1. **Convenience:** Digital payment methods offer unparalleled convenience, allowing users to make transactions anytime, anywhere, as long as they have an internet connection. This eliminates the need to physically visit a bank or an ATM.
2. **Speed:** Digital payments are generally instantaneous or occur in real-time, reducing the time needed for funds to reach the recipient compared to traditional payment methods.
3. **Security:** Many digital payment systems utilize encryption and other security measures to protect users' financial information and prevent unauthorized access. Biometric authentication, two-factor authentication, and secure tokenization are commonly used to enhance security.

4. **Cost-Effective:** Digital payments often have lower transaction costs compared to traditional payment methods, such as check printing and postage. This can lead to cost savings for both businesses and individuals.
5. **Global Accessibility:** Digital payment systems transcend geographical boundaries, allowing for cross-border transactions without the need for currency conversion or international checks. This makes international trade and remittances more efficient.
6. **Financial Inclusion:** Digital payments have the potential to bring financial services to underserved and unbanked populations, enabling them to participate in the formal economy and access essential financial tools.
7. **Record Keeping:** Digital payment systems automatically generate digital records of transactions, making it easier for users to track their spending and manage their finances. This can be especially useful for budgeting and tax purposes.
8. **Multiple Payment Options:** Digital payments encompass a wide range of methods, including mobile wallets, credit and debit cards, bank transfers, peer-to-peer (P2P) payment platforms, and cryptocurrencies. This variety allows users to choose the most suitable option for their needs.
9. **Contactless Payments:** Many digital payment methods, such as mobile wallets and contactless cards, support contactless payments. Users can simply tap their device or card on a reader to complete a transaction, reducing the need for physical contact.
10. **Integration with E-Commerce:** Digital payments are seamlessly integrated into e-commerce platforms, enabling consumers to make online purchases and transactions swiftly and securely.
11. **Automated Recurring Payments:** Digital payment systems often allow users to set up automated recurring payments for bills, subscriptions, and other regular expenses, streamlining financial management.
12. **Environmental Impact:** The shift towards digital payments can have a positive environmental impact by reducing the need for paper-based transactions, checks, and receipts.

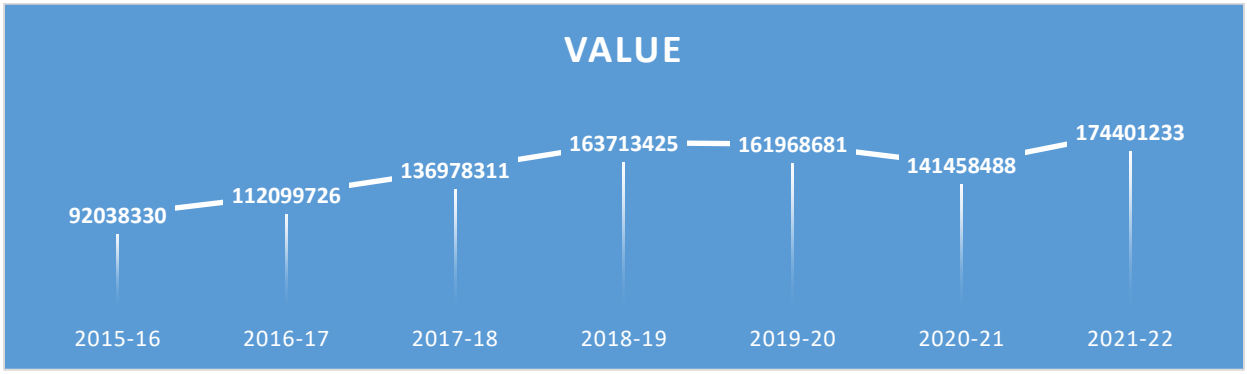
ANALYSIS and INTERPRETATION

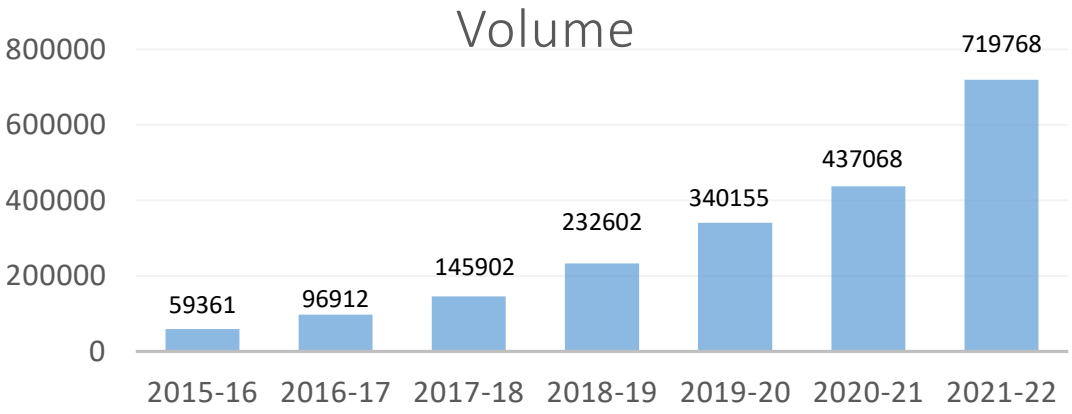
Growth of digital payments

Table 1 Growth of digital payments in transactions volume (‘lacs)& value (‘crs)

Year	Volume (lacs)	Growth	Value (crs)	Growth
2015-16	59361	Base year	92038330	Base year
2016-17	96912	38.74	112099726	17.89
2017-18	145902	59.3.2	136978311	32.81
2018-19	232602	74.47	163713425	43.78
2019-20	340155	82.54	161968681	43.17
2020-21	437068	86.41	141458488	34.93
2021-22	719768	91.75	174401233	89.48

Source : Database on Indian economy – payment systems





FINDINGS

- The growth in the volume of transactions are very high and a consistent increase in the percentages are visible in the table 1 was a clear indication of the penetration of digital payments in th day to day life of Indian population

- The growth in the volume of transactions were also in a increased manner as we can be clearly understood the volume of the funds transacted by using digital payment methods
- As we see there had been a slow increase and a decrease in growth percentage of volume of transactions during the 2019-20 and 2020-21 had significantly reflect the impact of COVID 19 in the payment sector

CONCLUSION

As the world hurtles towards an increasingly digitized future, the intrinsic synergy between digitization and sustainable innovation becomes ever more evident. The profound impact of digitization extends far beyond technological advancement, permeating the realms of economics, society, and the environment. The remarkable growth in digital payments stands as a testament to the transformative power of digitization, showcasing its ability to reshape industries and amplify sustainable development. As we navigate this dynamic landscape, it is imperative to harness the potential of digitization to not only fuel economic growth but also to create a more equitable, inclusive, and sustainable world for generations to come.

References

- An Empirical Analysis On The Factors Affecting Consumers Perception Towards Digital Payment Systems,http://hdl.handle.net/10603/314219
- Consumer behaviour towards digital payment systems a study with special reference to rayalaseema region A P,http://hdl.handle.net/10603/410549
- https://www.rbi.org.in/scripts/BS_PressReleaseDisplay.aspx?prid=55136#:~:text=The%20Reserve%20Bank%20of%20India,against%20349.30%20for%20March%202022
- https://www.npci.org.in/statistics
- https://rbi.org.in/Scripts/Publications.aspx?publication=Quarterly
- https://dbie.rbi.org.in/DBIE/dbie.rbi?site=statistics#!3_24
- https://dictionary.cambridge.org/dictionary/english/development