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DIGITAL TECHNOLOGY – THE 4TH INDUSTRIAL REVOLUTION & BEYOND

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***Abstract*— The growth of Digital technology has seen a significant growth in emerging as well as developed nations over the past two decades. This journal report examines the opportunities for India's future digital growth in verticals like Retail, Finance, and Agriculture. This also covers the need of adoption of digital technology during the crisis and challenges faced by the consumers in digital era.**

Keywords— Digital Technology, UPI, Fintech, Innovation, Aadhar, Digital Trends, Digital Economy

I. INTRODUCTION

India being one of the largest populated countries in the world ranks 2nd in the list of digital adopters standing behind China. The growth of Indian based technology companies and the Indian Prime Minister Mr. Modi's "Make in India" has fueled the digitalization transformation of every sector in India. The introduction of Aadhar – a unique digital record for citizens of India to create a unique identification and use the digital records in every digital transactions like – Linking the Aadhar with PAN (Permanent Account Number). Bank Accounts, Land Registration, Agriculture, etc.

II. BACK GROUND

India being one of the largest populated countries in the world ranks 2nd in the list of digital adopters standing behind China. The growth of Indian based technology companies and the Indian Prime Minister Mr. Modi's "Make in India" has fueled the digitalization transformation of every sector in India. The introduction of Aadhar – a unique digital record for citizens of India to create a unique identification and use the digital records in every digital transactions like – Linking the Aadhar with PAN (Permanent Account Number), Bank Accounts, Land Registration, Agriculture, etc.

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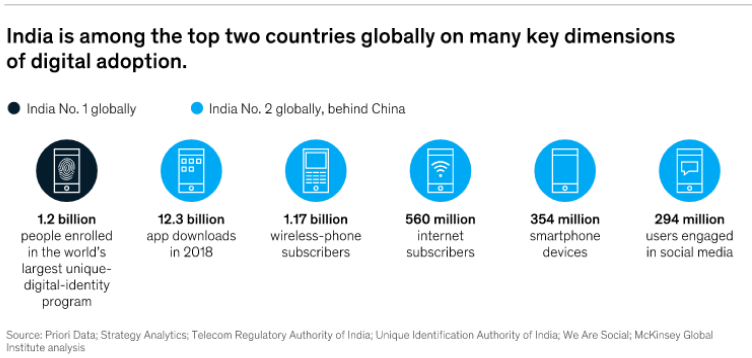


Fig. 1. India's Digital Adoption Ranking

Analysis : In this paper we will analyze the future trends in the few verticals.

Agriculture: Agriculture being the backbone of the Indian economy where 40% of the workforce is in this sector. There is a need of digital adoption for farmers and workforce dependent on the agriculture. Agritech is the term used for the digital technology used in the agriculture is growing in a slow pace in India. The challenges faced by the adopters include lack of digital skills knowledge among majority of the people working in the agriculture sector. The availability of the internet services in rural and urban areas has improved significantly which led to rapid adoption of smartphones, but the use of smartphones was very much limited to only certain activities like making phone call, video streaming, video call services. The true adoption of digital technology will bring the farmers market to the consumers directly by using the various digital Channels. Digital innovations in Indian agriculture can help add $50 billion to $65 billion of economic value by 2025.

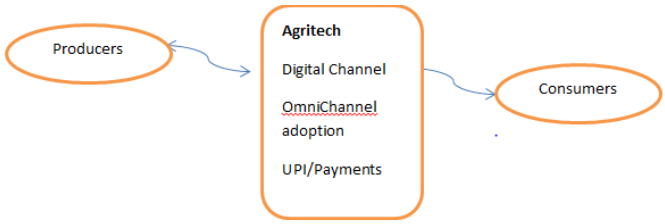


Fig. 2. Agriculture Digital Channels

- After that we select the ordered coefficient from 1 to N to get N coefficient. The formulae of watermark embedding are as follows. The use of digital channel to bring the gap between Consumers and the producers.
- The adopting to use the Omni channel for sales and customer engagement.
- The use of UPI or digital payments to increase the ease of transaction.

Retail

Indian FMCG is one the largest sectors in the world. Consumers demand and supply is increasing at exponential rate. The increase in standard of living, the presence of retail markets in non-metro and rural areas, increase in the use of online shopping etc. helped to the growth of FMCG sector in India. FMCG market was the one of the initial adopters of the digitalization in India. The raise of the internet and availability of the smartphones for economical price along with the data services helped the retail industry to grow in the ecommerce space.

The ecommerce in India which is US $39 Billion in 2017 is expected to cross $200 Billion by 2026, by growing rate more than 68 percent which is the highest in the world.
Reports from IBEF org suggests that number of internet connection in India as increased to 760 million in the wake of Digital India Programme. There are number of opportunities in this market especially when the retail companies having the required data to analyze the customers purchasing activities and tailoring the engagement programmes which helps in higher customer satisfaction and reduces the attrition by in turn will help the growth of the company's profitability.

Finance

The financial sector is the key player in the digital transformation in India. The introduction of ATM, online banking, SMS banking, App banking, UPI (Unified Payment Infra), mobile payments etc. has reduced the gap between users and the financial institution. The user's need of everyday banking was done without even visiting the bank. There is a gap between the products developed and customer service.

The Fintech plays a major role in reducing the gaps and by introducing more consumers centric approaches like open banking, Baas - banking as a service, PaaS - payment as a service, payment infrastructure, security etc.

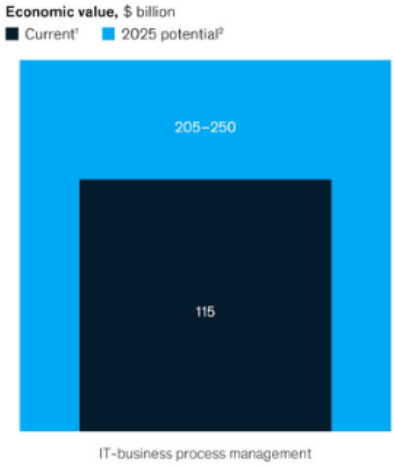
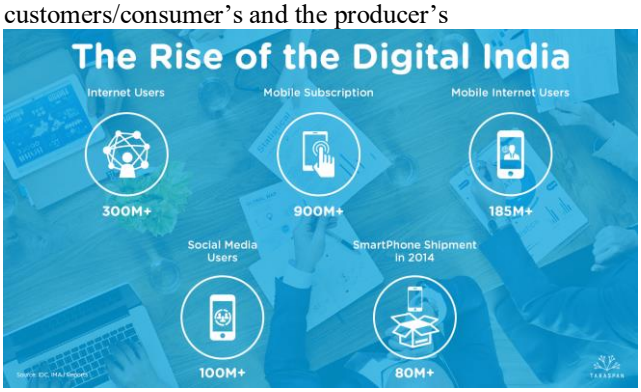


Fig5. Economic Value of Digital IT

III. CONCLUSION

The need of customer centric approaches should be adopted by all the verticals and Fintech's, Agritech or any technology companies providing services to the customer. The government should also provide the platform to the unbanked, unskilled people to encourage the use of digital technologies. As in coming years, the use of digital skills will be a surviving instinct. The failure in adoption will have adverse effects in the development of the country and the GDP.

This journal discussed about the role of Fintech, Agritech and Retail technologies in bridging the gap between the customers/consumer's and the producer's



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