Artificial Intelligence – An Emerging Tool in Growth of M-Commerce

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Abstract:- Technology is changing our lives at a pace faster than ever. The latest technological developments are reshaping industries, economies, and communities. Mobile Commerce (M-Commerce) has become a dominant area which is influencing operations in different industries and sectors of the economy. Every company concentrates on high-performing marketing techniques and it also wants to know which marketing techniques yield the highest return on investment. But keeping track of and analyses data from all the media channels take a lot of effort. Here, Artificial Intelligence (AI) has taken a new shape in resolving the problem. M-Commerce is transforming the way businesses are conducted, opening up a variety of new opportunities, and establishing new marketplaces. M-Commerce is an online mechanism for sale and purchase of products, services and information through smartphones, tablet PCs, iPads and laptops using wireless technology. In this study Authors have explored the obstacles of M-commerce, as well as the role of AI in M-commerce. In accordance with the secondary data available, this research also discusses the effect of AI on M-commerce. On the basis of its past trends, further study focus to analyses the growth prospects of M-commerce.

Keywords:- Artificial Intelligence, Technology, E-Commerce, M-commerce.

I. INTRODUCTION

Technological innovation creates new opportunities for everyone in a number of different industries. Technology aids in the improvement of the quality, efficiency, and cost-benefit ratio of commercial services. With the advancement of information and communication technology, artificial intelligence has gained popularity. E-commerce is growing nowadays because most of the organisations that market their products and services have focused on expanding their target client base through online sales. In 2022, the e-commerce market was worth $5.5 trillion globally and it's continuing to grow. By the end of 2025, the global market of e-commerce is expected to grow to $7.3 trillion. In today's time, the market place has shifted online; this has leads to shift in the buying behavior of the customer. Development in technology is making the human work easier, saves the time and effort. Content distribution over wireless devices has gotten quicker, more secure, more scalable over time. As human being (Sales person) use to market (advertise) goods and services and gather information about the market so that they can use that information to increase their market share, in the same way, today artificial intelligence is working as a human being to gather information for the company.

The buying and selling of products and services via mobile devices such as smartphones, tablets, and iPads is referred to as mobile commerce. M-commerce is a part of e-commerce in which customers can access online purchasing platforms without requiring to use a desktop computer. It includes in-app purchases, mobile banking virtual marketplace apps like the Amazon mobile app and the Flipkart app, and digital wallets like Apple Pay, Phonepe, BHIM Google Pay, Paytm, and Samsung Wallet. AI in mobile commerce provide users with a rich and hyper-personalized mobile shopping experience. In today's e-commerce era, the primary goal of businesses is to influence client behaviour in favour of certain products and brands. The use of AI as an innovative tool in m-commerce may appear to be a beneficial step forward. Artificial intelligence is crucial in monitoring the corporate environment; it essentially recognises the demands of the clients and then implements the appropriate strategies with or without minimum human involvement. AI bridges the gap between the requirements of consumers and effective or high-quality services. AI system enables electronic payments, network marketing, and the logistics management involve in the delivery of items to clients. With the use of AI, big and large volume of data can be analyzed from in few moments and the consumption patterns of buyers can be understood, that can be easy for providing services in m-commerce.

II. LITERATURE REVIEW

➤ *Anubhav Barbar; Prof. Manju Baghmar; (2022)* in their paper titled "*A study of artificial intelligence in Mcommerce*" found that the AI has played a very significant role in providing personalized services to customers. AI is also essential for providing best quality services to the customers and it has now became need of an hour in business.

➢ *Anca Antoaneta Vărzaru; Claudiu George Bocean; (2021)* in their paper titled "*A Two-Stage SEM– Artificial Neural Network Analysis of Mobile Commerce and its Drivers*" have found that due to the easy accessibility of mobile devices in consumers' day to day lives, and the advancement of the quality of mobile communications, m-commerce will surely dominate e-commerce.

➢ *Laith T. Khrais; (2020)* in the study, titled "*Role of Artificial Intelligence in Shaping Consumer Demand in E-Commerce*" author focused on the usage of AI in e-commerce, how it helps in e-commerce and discussed about the different models and how models can be improved. The author also mention that the effect of AI on consumers' decisions is not yet clear and further studies is needed for AI systems in e-commerce.

➢ *Shrivas Dr.Kirti; Tiwari Dr.Abhideep; (2017)* in the paper titled "*A Study of M-commerce in India*" author has discussed about the benefits and hurdles of M-commerce in India and also focused that government should identify the factors which are responsible for growth of m-commerce and enlarged it by making stringent rules and regulation in promotion of m-commerce.

➢ *Objectives*

- To study the current scenario of M-commerce in India.
- To identify the opportunities and challenges of M-commerce.
- To determine the role of Artificial Intelligence in growth of M-commerce.
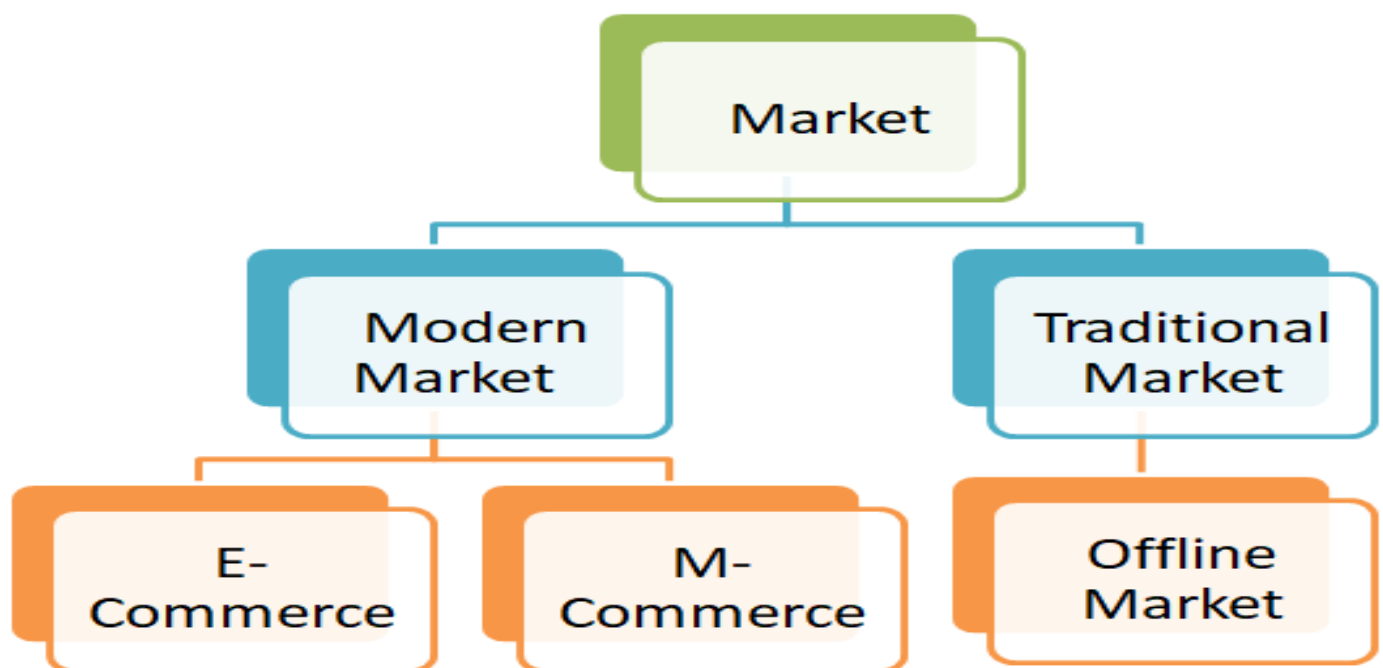

Fig 1 Types of Market

Commerce basically means the exchange of goods and services between businesses, individuals, and governments. It is basically divided into traditional market and modern market. Traditional markets refer to physical markets where goods and services are sold and exchanged by local vendors and traders in a particular geographic area also called as offline market. These markets often have a long-standing history and are deeply rooted in the culture and traditions of the local community. On the other hand, modern markets refer to digital or online markets where goods and services are sold and exchanged through e-commerce and m-commerce platforms. These markets rely on technology and digital infrastructure to facilitate transactions and connect buyers and sellers from different parts of the world.

III. CURRENT SCENARIO OF M-COMMERCE IN INDIA

In India online shopping became possible when the Internet was opened for the public in 1991. On 5th September, 2016 the launch of Reliance Jio brought the revolution in the telecom industry. The number of people using mobile commerce is steadily increasing due to the development of smartphones and the availability of data packs at prices that more than half of the population of India can afford. In India, nearly all social classes now use phones for things other than making calls. This includes ordering food online and using apps for grocery shopping. Using apps for educational reasons, ordering takeout or movie tickets online, using financial applications to access banking and financial services, using retail apps for shopping, etc. This ongoing rise in reliance on mobile apps can be attributed to their usability, reach, portability, simplicity or accessibility, ability to provide benefits instantly, etc.

➢ *India's digital transactions between April and July 2022 was recorded Rs. 3,200 crore and UPI transactions increased by 73% year over year, totaling over 7 billion transactions.*

➢ *As per the report, 67% of people prefer communicating with companies through messaging apps.*

➢ *The m-commerce is growing at faster pace, the revenue from sales in 2021 has increased by more than 3.5 times compared to 2016.*

➢ *Worldwide market of m-commerce is growing at the rate of 29% compared to the growth rate of e-commerce which is 22%.*

➢ *Online shopping increased significantly after the COVID-19 pandemic and subsequent lockdowns, and usage of shopping applications increased by 49% between Quarter 1 2020 and Quarter 2 2021. Due to the mobile Internet's distinct advantages over the internet, a user can use it anytime and anywhere they choose. The development of wireless internet access through mobile devices, which is giving m-commerce unrivalled potential to take advantage of mobility. By extending their social and professional networks and bridging time and space, it enable customers and businesses to become more connected.*
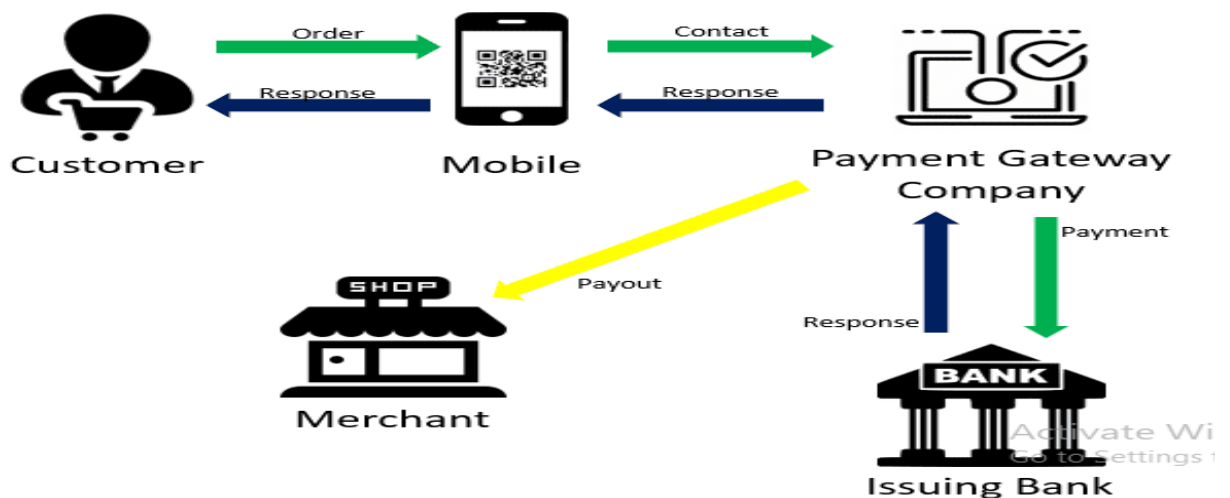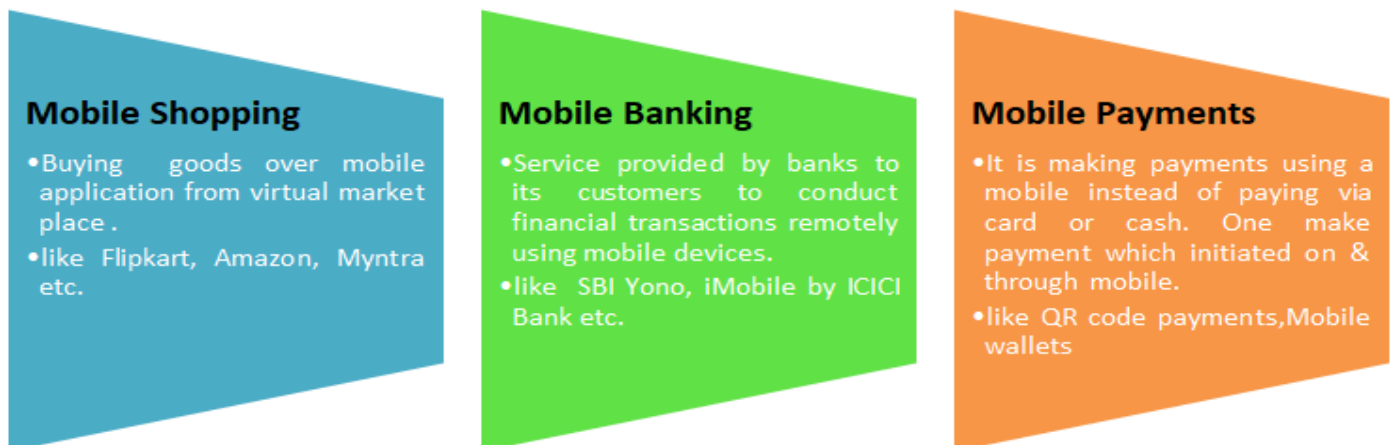

Fig 2 The Working of M-Commerce

Mobile Shopping
• Buying goods over mobile application from virtual market place.
• like Flipkart, Amazon, Myntra etc.

Mobile Banking
• Service provided by banks to its customers to conduct financial transactions remotely using mobile devices.
• like SBI Yono, iMobile by ICICI Bank etc.

Mobile Payments
• It is making payments using a mobile instead of paying via card or cash. One make payment which initiated on & through mobile.
• like QR code payments, Mobile wallets

Fig 3 M-Commerce Comprises

➢ *Artificial Intelligence (AI) in Mobile Commerce*

The rapid advancement of science and technology has boosted the usage of AI, and its development has an impact on our way of life and day-to-day activities. The m-commerce industry has also successfully implemented AI technology and benefited from the results. The expansion of mobile commerce is now being driven in large part by artificial intelligence. In today's market, online selling has captured the market where everything is available at one fingertip. We have been using e-commerce from a long time, but with the introduction of mobile commerce, it has made our transactions so frequent that it has become convenient and very easy for users to make an order. With the advancement in technology and adoption of these technologies, market has penetrated a lot. Uniqueness is what brings in changes, which leads to innovation and gives rise to new ideas. AI has made the businesses to change its system and impacted in many ways.
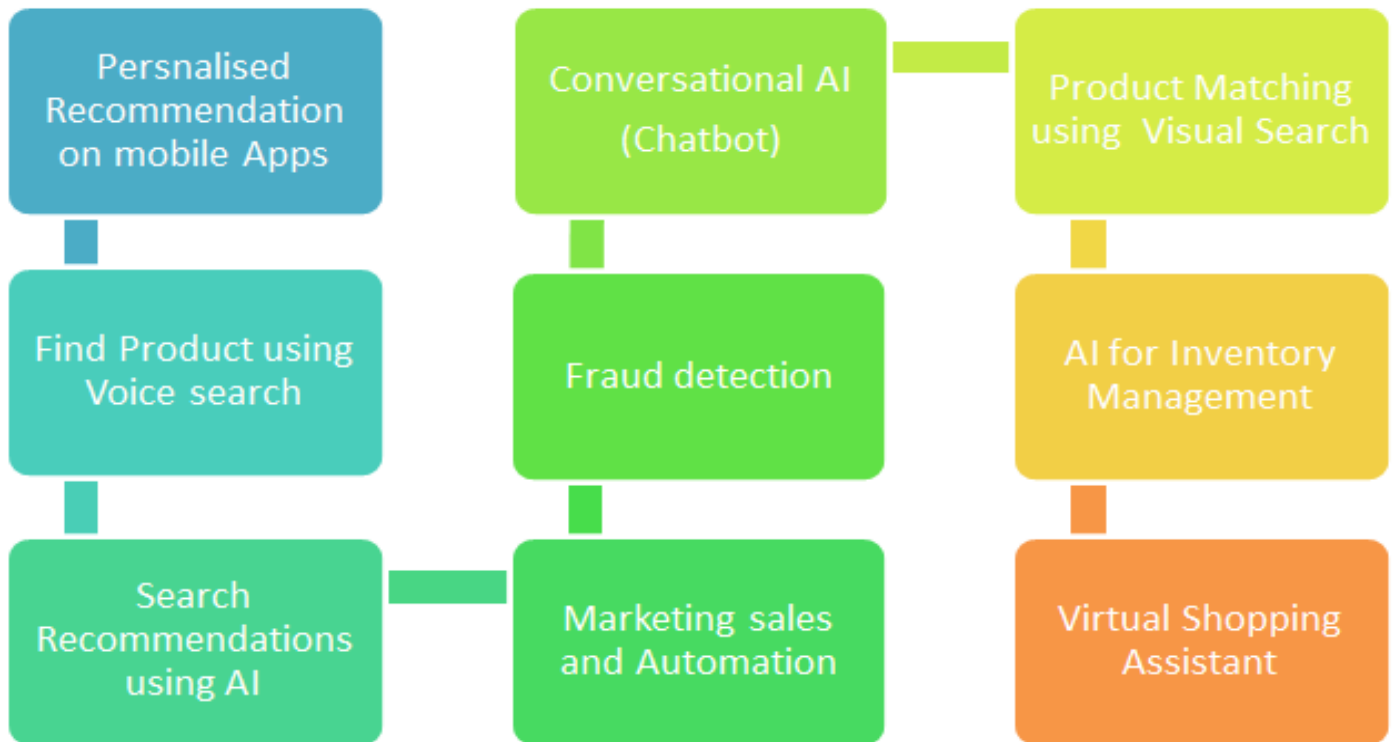
Fig 4 Role of AI in M-Commerce

➢ *Artificial Intelligence role in development and growth of m-commerce, the main focus from user point of view are-*

• Personalization: AI analyzes user data and provides personalized recommendations based on their browsing history, search queries, and demographic information. This helps e-commerce businesses offer relevant products and services to their customers, leading to higher sales and customer satisfaction.

• Chatbots: AI-powered chatbots interact with customers and provide 24/7 support, answering their queries, and resolving issues. This improves customer experience and helps businesses save time and resources.

• Fraud detection: AI algorithms can detect fraudulent activities and prevent unauthorized access to customer data, protecting both businesses and customers from security threats.

• Visual search: AI-powered visual search allows users to search for products using images rather than keywords, making the search process more intuitive and user-friendly.

• Voice assistants: Voice assistants like Siri and Alexa use AI to provide a hands-free shopping experience, allowing users to make purchases through voice commands.

• With artificial intelligence, the customers are benefited, and the opportunity for digital marketers has grown as they tend to influence the customers by providing the exact product advertisement they search for or talk about over their mobile phones. The AI, with its advancement in technology, has reached to the extent where they advertise to people over social media, drawing their attention towards the product in which

they once showed interest or searched for over the internet. The artificial intelligence in shopping apps and different services has made shopping and other financial transactions much easier, and through their target customers, they are boosting sales as well as the growth of the company. In today's time, the role of AI is such that in order to sustain themselves, market digitally, and make profit, they have to keep themselves high-tech with artificial intelligence involvement in their business.

➢ *Opportunities*

• A faster buyer's journey/ Quick process of buying for customers.
• Improved accessibility and reach to customers/ faster reach and accessibility of customers by businesses.
• Delivering the right message at the right time/ delivery of right message to right prospects at right time.
• Easier marketing and Re-marketing opportunities.
• Quick access to Valuable customer data.
• Better customer experience and easy feedback from customer.
• Easy Correspondence from related parties.

➢ *Challenges*

• Deep knowledge/ awareness of Technology is needed.
• Access to technology is required.
• It requires faith in the product.
• There is a very high competition in this market,
• Security concerns due to frauds.
• The mobile payment process is different for B2B.

IV. CONCLUSION

➢ E-commerce industry has reached USD 38.5 billion, and by 2026, it is predicted to reach $200 billion in India.

➢ 34.5 percent sales were made by using mobile devices in 2017 of total e-commerce. It is predicted to rise to 54% by 2023.

➢ Smartphones payment has become convenient and secure then before, and their usage is increasing quickly.

➢ Consumers from large cities, smaller towns, and rural areas are predicted to increasingly choose mobile commerce in the future due to the introduction of 5G services across the nation and the rising popularity of new-age technology enabling conversational mobile transactions.

➢ Artificial Intelligence through personalisation, automation, and innovation lead businesses to grow at a faster pace.

➢ In order to market digitally, and make profit, they have to keep themselves high-tech with artificial intelligence involvement in their business.

RECOMMENDATIONS

➢ The easy availability of mobile phones and affordable data plans has contributed heavily to the growth of m-commerce. More affordable and easy plan should be made to capture those people who don't even have mobile phones.

➢ Government should come up with more infrastructures in coping up with internet connectivity issues.

➢ Many of the services available over the mobile commerce are left unused due to lack of awareness or knowledge, companies should make aware about it to the users.

➢ Securities challenges should be given major concern as online transactions are the major part of m-commerce.

➢ Experimenting with emerging technologies like augmented and virtual reality will improve customers' online shopping experiences, and customised features will encourage customer loyalty. Also, automation will give you more time to focus on improving the value of your services.

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