

THE AI REVOLUTION IN INFORMAL BUSINESSES: CHALLENGES AND OPPORTUNITIES.

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Abstract

Today marks the era of AI and its application across various sectors globally. While AI is transforming businesses worldwide, its effects on the informal sector and enterprises in urban areas remain insufficiently examined. The primary aim of this paper is to investigate the utilisation of AI in informal sectors in India, with particular reference to Mumbai, the country's capital and commercial hub. This qualitative study relies on interviews conducted with small business owners in Mumbai, which have been transcribed for analysis. This research aims to determine whether these retailers are aware of AI tools that could enhance their business growth and profitability. Mumbai is home to numerous concentrated markets offering diverse goods and services. Given the increasing application of ICT and AI, it is essential that the informal sector, which is predominant in India, benefits from the advantages provided by AI tools, which is the central focus of this study.

Keywords: AI, informal business, Mumbai, opportunities and challenges.

INTRODUCTION

AI and informal businesses

AI and its use in informal businesses do not have a satisfactory presentation in India because almost 85% of businesses fall into the informal sector, where most small business owners or retailers do not use AI or their businesses. Instead, they carry the traditional business model even today. However, the use of AI in informal sector in relapse like that or businesses can also be beneficial if it is known to these retailers and they are trained for this according to the technological diffusion theory new technologies prayed within the society If it is made up here and if it has more advantages to the Sellers. Resource-based view theory states that informal businesses often have limited financial and technological resources. Digital divide theory does mention the inequalities in digital access in urban and rural areas. AI, a simulation of intelligence in machines, enables us to perform tasks such as reasoning, problem-solving and decision-making. Today, AI is used widely in almost every industry, shaping the future of technology and innovation.

Informal businesses in Mumbai:

Mumbai is the financial capital of India and a hub for commercial activities and entrepreneurship. The city has a dynamic environment for small businesses fueled by diverse opportunities. Small and retail businesses are the backbone of Mumbai's Economy, providing goods and services to millions of people. These small units contribute significantly to employment and innovation. The reason for the growth of informal business is determined by the customer base, consisting of diverse customers of poor, middle-class, and high-income groups. The growth of small businesses is also traced to PMMY, which helps small businesses secure funding. The growth of the informal business depends upon connectivity infrastructure and supply chain. The primary factor for the growth of small businesses in Mumbai is the availability of skilled and semi-skilled labour who can be quickly hired. The commercial places like Mohd. Ali Road, Crawford market, Lalbaug, and Dadar have a high scope for demand for goods and services. The growth of small businesses has also become due to digital payment methods and the growth of e-commerce. The small businesses in Mumbai consist of grocery stores, clothing, footwear and accessories, electronic shops, stationery and bookstores, restaurants and cafes, bakeries and sweet shops, salons, tailoring services, coaching classes, jewellery-making, etc. All these businesses are clustered in the local markets and have a long history of their existence.

Mumbai continues to be a land of opportunities for small businesses. By leveraging the city's resources, infrastructure, and digital advancements, small enterprises can thrive and contribute significantly to Mumbai's economic growth. The resilience and adaptability of Mumbai's entrepreneurs ensure that the spirit of small business remains strong in the city.

RESEARCH OBJECTIVES

1. To explore how AI is helpful in informal businesses in Mumbai.
2. To identify the key challenges faced by informal businesses in Mumbai.

LITERATURE REVIEWS

Chakraborty, H., & Chakrabarti, S. (2024) studied the informal sector in India, justifying its competition or collaboration. The study's main objective was to review the literature on the informal sector in India, focusing on competition. They found that India's informal sector is growing, and many businesses lack access to formal credit and legal protection. Moreover, informal firms do not collaborate but rather compete with each other.

Chen, L., Zhang, Y., & Williams, D. (2024) studied AI and small business in the light of opportunities and challenges. The paper's main objective was to assess AI's impact on small enterprises, including informal businesses. The methodology used for literature reviews. They found that AI enhances productivity, marketing and financial management.

Deen-Swarray et al. (2013) analysed the extent to which informal businesses employ ICT daily and the challenges they face. The study was based on the methodology defined by national census sample frames from nine African countries. They found that mobile phones remain the most commonly used ICT, while computers, fixed telephones, and the internet were negligible in some cases. Businesses communicate more with their suppliers than customers via mobile phones.

Ethan Arendse and Carolien Van Den Berg (2024) explored various barriers to digital financial inclusion among informal businesses in Cape Town, South Africa, focusing on understanding the low adoption rates of fintech. The study is case-based. Semi-structured interviews were conducted with informal business owners using purposive sampling, and data analysis was done using thematic content analysis.

Faruque et al. (2024) studied technological adoption and digital transformation in small businesses. They explored how they adopt digital technologies, the impact of digital transformation on their growth and sustainability, and the related challenges. The study was secondary data-based, and this paper used thematic analysis. They found that the use of AI is increasing in SMEs after COVID-19.

Hammer, A., and Karmakar, S. (2021) studied automation, AI, and future work in India to assess the national strategy on AI and explore the impact of automation on the Indian labour market, work, and employment. They used data from NITI Ayog for this purpose. They found that this raised doubts about the effectiveness of the current policy.

Jangili, R. (2024) studied issues and challenges in measuring the Informal Economy in India. The study's primary purpose was to examine the informal sector's measurement challenges, focusing on data collection difficulties and statistical inconsistencies. The national accounting framework for estimating the informal economy was reviewed. They found that the informal economy is highly diverse.

Marius Schönberger (2023). Studied SMEs and AI to address the gap by identifying the most important applications of AI for SMEs and their benefits and challenges. They used a quantitative research approach, including online surveys using social media. They found that AI has many benefits for SMEs.

Nnamdi O et al. (2021) explored the role of entrepreneurship in the informal sector of Africa, focusing on the opportunities and challenges related to these businesses. They found challenges related to finance, regulations, poor infrastructure, and no formal recognition. At the same time, they also found many opportunities, like job creation, economic contribution, and potential digital transformation. They recommended that there is a need for skill development programs for informal businesses.

Toorajipour, R. (2021) studied AI in supply chain management as a systematic review. The study examined AI's role in supply chain management and identify research gaps. The paper was based on systematic literature reviews. They used four SCM fields to analyse logistics and marketing. They found that AI improves decision-making efficiency and automation in SCM.

SIGNIFICANCE OF THE STUDY

AI is rapidly transforming all sectors worldwide. In India, the use of AI is on the rise as well. The impact of AI is different in various sectors, but in the informal sector, it has not yet been explored as well. Informal businesses in Mumbai are one of the significant parts of the economy as it is the capital city of Mumbai and has many kinds of businesses. The adoption of AI in the formal sector is visible on the informal side, but it is not so well adapted due to less awareness, digital literacy, financial problems, etc. Therefore, it is necessary to understand the opportunities and challenges faced by informal businesses in Mumbai that can help bridge the digital divide and promote inclusive growth by bringing small businesses into the purview of AI. Insights from the results provide a clear picture of implications for the business. The study is also being carried out to enhance the use of AI in small businesses.

METHODOLOGY

Research Design

The research approach used in this paper is Qualitative research using semi-structured interviews of the selected individuals who desire to use AI for their informal business in Mumbai and the related challenges.

▪ Sampling Method

The sampling method used in this study is non-probability 'Purposeful sampling.' The participants selected are small business owners who own their shops. The data are the outcome opinions of 15 interviewees.

▪ Data Collection

The data was collected through semi-structured interviews with open-ended questions related to AI and informal businesses. The mode of data collection was in person, as the markets were nearby. The open-ended questions were on awareness of AI, usage of AI tools in business, benefits of AI, and related challenges. The interviews were taken after obtaining the consent of the interviewees.

MAJOR FINDINGS

OPPORTUNITIES OF AI FOR INFORMAL BUSINESSES IN CITIES

Digital Marketing

The primary barrier to formal business is the use of digital marketing. Many respondents either do not initiate digital marketing or resist changing their business style.

A retail garment seller expressed his concern:

"I do not understand much about AI, so I do not dare to go for digital marketing as I do not know the actual process of using AI. (Respondent 8 Garment retailer)".

Additionally, some retailers expressed interest in using AI and wished to use social media and other platforms to expand their businesses and earn more profits.

Customer Engagement

According to some scent sellers, using AI may not help engage customers. They feel that they have been selling the scent for many years, and it is still in high demand. There is regular touch with the customers, but using AI may affect this engagement.

A retail garment seller expressed his concern:

"We are used to having conversations with customers and recommending them for the best scent. But with the use of AI, I am not sure if I can have a conversation with more customers" (respondent 04 Scent seller).

Faster Digital Payment

Almost all the respondents agreed that AI is good for faster payment, as all of them are accepting UPI and card payments today. So, all of them received a positive response regarding digital payments.

"Digital payments are convenient as there is no need to hold cash in hand, and there is less risk of cash stealing and loss. I am personally comfortable with it. (respondent 11, Scent Retailer)"

Business Expansion

Considering the use of AI and social media platforms, most respondents believe there is a great scope for business expansion. Many desired to use such a platform to enhance their business and increase the sea volume.

"I have seen how cloud kitchen is getting so popular, and there is as good business for many of the eatables due to social media platform" (respondent 07, Kebab seller)

CHALLENGES FACED

Resistance to Using AI

Some business owners find using AI difficult as many of them are studying until graduation and do not know how exactly to use AI. They are aware of AI's benefits, but they are little aware of its use.

"I do not feel like using AI right now as our business has been run for generations, and we are making adequate profits all the time. I might think for it" (Respondent 05, Ladies Garment seller)

Limited Digital Literacy

The use of AI demands digital literacy on the part of its users. Many know about social media and digital payments but do not know the apps or software to help them grow their small businesses.

"I do not know much about it, and due to my business, I have less time to learn about it (respondent 13, Cap seller).

High Cost of AI

Many business owners expressed that using AI and buying apps and software is expensive. They feel that their skill plays an important role in traditional selling, as they learned from their forefathers. However, using AI may result in high costs.

"I do not feel to spend for AI tools as it may affect my profitability" (respondent 01, Hotel owner).

Connectivity Issues

The use of AI needs connectivity and Androids. Many of the sellers have good cells and use the internet and Wi-Fi as well. However, due to network issues, they expressed their fear of losing if the transaction is online and unsuccessful.

"Sometimes, I am scared of allowing customers to pay online as the transaction may not be successful, and I cannot search for him again if the money does not reach my account" (respondent 08, Unani medicine seller).

Regulatory Clarity

The use of AI in businesses has some regulatory norms of which many businesses are unaware. They are not well acquainted with the regulations and legal aspects of using AI.

"I do not know anything about its regulatory norms, and so I do not want to get actually "(Respondent 02, Leather bag seller)

CONCLUSION OF THE STUDY

The study reveals that AI has many opportunities for informal business in cities related to digital marketing, customer engagement, and faster digital payments, which help to sustain business expansion. At the same time, some business owners feel that adopting AI is difficult due to having less knowledge about it. Several challenges hinder AI adoption, including resistance to change, limited digital literacy, high costs, connectivity problems and lack of regulatory clarity among business owners. Many owners are unfamiliar with AI tools and fear that they may impact their traditional business and customer relationships. The findings highlight the need for affordable AI solutions, training in understanding regulatory norms in easy language, and the need for small owners to be confident to use more AI tools to increase their business to the desired level.

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