Section: Research Paper

COMPARISON OF PRE vs POST PANDEMIC AI TECHNOLOGY AS A COMPETITIVE CRM TOOL IN THE INDIAN RETAIL SECTOR

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ABSTRACT
This study examines the retail sector and its approach to customer interactions in the wake of a global epidemic. Numerous technological advancements have been made to online retail platforms, but traditional brick-and-mortar firms have been slow to adopt these innovations. The study aims to compare these businesses' adoption of AI tools for customer relationship management in pre and post-pandemic eras. Interviews with semi-structured questions are the primary means of gathering this data. The respondents for this research are the CRM managers from 100 major Indian retail organisations currently using AI. The results of this research demonstrate how artificial intelligence (AI) has altered the marketing strategies businesses employ to reach out to consumers better before and after the epidemic. More than just a marketing tool, it may spark new ways of doing business. Also, it provides answers to complex problems, which in turn contributes to the rapid expansion of businesses.

Keywords: *Artificial Intelligence (AI), Customer Relationship Management (CRM), Impulse Buying, Covid-19, Indian Retail Sector*

INTRODUCTION

The new age technology of Artificial Intelligence (AI) has also altered Customer Relationship Management (CRM). Due to its speed, scalability, and efficiency, AI technologies have gained appeal in corporate decision-making processes (Aghion et al., 2020). The 2019 Covid-19 outbreak and pandemic control and lockdown laws have impacted retail. Some attempts to alleviate this burden aren't as effective as expected; thus, it's crucial to find rapid answers to retail business challenges and support their development. During the Covid-19 outbreak, AI helped ensure the long-term stability of retail customer relationships (Rababah, 2011). If all consumer data is correctly handled, organisations may develop personalised marketing replies, innovative ideas, and tailored goods and services, delivering high customer value and gaining a competitive edge (Payne and Frow, 2005). Data's increased volume, velocity, variety, and processing capacity have led to new technical solutions in the digital age, including the emergence of AI techniques (McAfee and Brynjolfsson, 2017).

Big data and cloud computing have changed CRM post-pandemic. Cloud computing delivers integrated and scalable solutions for big data's organised and unstructured data. After the epidemic, several companies are using automation and AI to analyse consumer buying behaviour better, enhance brand-customer engagement,

and establish customer connections. Using AI, firms may respond to consumer enquiries and establish client loyalty via CRM automation. Businesses are always ready to attract new consumers, give them the products and services they need, retain them around, and grow the company's value. This strategy facilitates better customer-management interactions. Loyal customers help the company's long-term success. Today's management employs AI to maintain healthy and consistent ties with customers, engage them effectively, understand their needs, and communicate information to make well-informed decisions. Artificial intelligence has helped companies shift away from rule-based assessments and boost CRM competitiveness post-pandemic. AI's capacity to represent millions of histories and snapshots, such as demographics and geographic locations, helps salespeople choose what to sell. Combining AI and CRM systems may reveal trends in firm success and failure, which can help evaluate score prediction algorithms.

There is much speculation about Covid-19's impact on retail (Carlsson-Szlezak et al., 2020). Modern technology and its proper use in retail helped companies survive the Covid-19 pandemic. The Covid-19 issue has sped up adjustments in company practices that should have taken years. Their companies have embraced digital transformation and accelerated customer and supply chain technology implementation by three to four years (McKinsey, 2020). IoT, robotics, web portal trackers, blockchain, and a few of the world's major retailers have merged machine learning and deep learning to create pleasurable customer experiences on their e-commerce portals (Prashar et al., 2017). Some retailers are adopting AI algorithms and video shopping assistants to engage online customers and enhance sales (Shao et al., 2019). Digital transformation and new technology adoption boost overall operational expenses. Firms implemented mobile and contactless payment services, automation of all operations, "big data analytics" tools for data mining and business intelligence, and cloud solutions, among other things (McKinsey, 2020). Businesses must embrace digitalisation to save costs, facilitate remote working for staff and supply chain partners, and sustain long-term online interaction with consumers (Baldwin, 2020). The Covid-19 outbreak has also changed consumer behaviour; people have lost jobs and money, and the future is bleak. Uncertainty and psychological upheavals cause physical and mental health problems (Bradbury, 2020). Covid-19 restrictions have caused consumers to stay home, avoid social engagement, and change their shopping and eating habits (Donthu & Gustafsson, 2020). Technology, demographics, and fear of new Covid strains are changing consumer behaviour (Naeem, 2020).

Schrage and Kiron (2018)'s international executive study on strategic measurement found that 79% of CEOs believe in investing in their marketing expertise to boost AI's effectiveness. AI in marketing, especially CRM, is predicted to result in considerable labour savings due to the automation of functions traditionally done by humans (Schrage & Kiron, 2018). AI is a machine-based technique that can't duplicate human intuition and creativity (Jarrahi, 2018). Post-pandemic technologies that automate and support marketing decisions are changing the role of marketing managers.

Based on the above literature study, the following objectives can be deduced:

1. To analyse the impact of Artificial Intelligence on CRM in the Indian retail sector w.r.t. post-pandemic era
2. To compare the implementation of pre vs post-pandemic AI technology as a competitive CRM tool in the Indian retail sector

Hypothesis for the study:

Ho: There is no substantial dissimilarity between pre vs post-pandemic AI technology as a competitive CRM tool in the Indian retail sector

MATERIAL AND METHOD

Study Design

The primary goal of our research is to examine the importance of artificial intelligence (AI) in the evolution of "customer relationship management (CRM)" in the Indian retail industry before and after the 2009 pandemic. The researcher opted for a qualitative approach to carry out this study. In order to address a study topic, qualitative research is often exploratory and is modified to learn about the factors at play, the points of view of those involved, and so on. This study aims to learn how AI will affect marketing. Hence qualitative research is ideal.

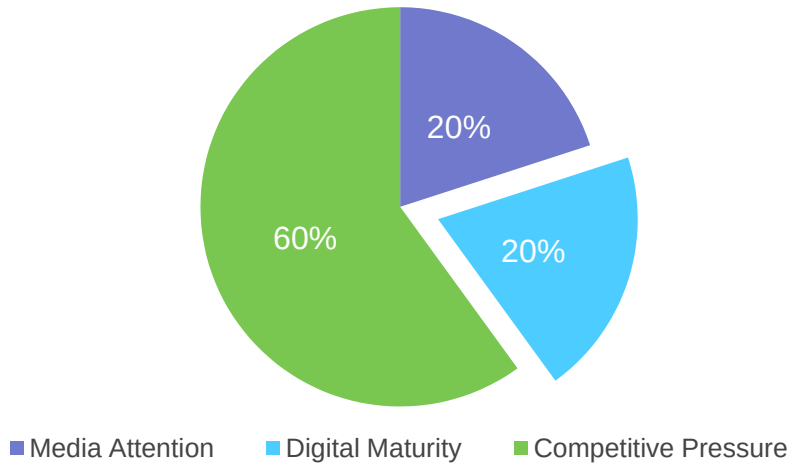
Data Collection

Primary and secondary sources are used for data collection. The researcher used interviews to acquire primary data to address the study challenge. Secondary sources include articles, journals, books, websites, and blogs. AI interviews CRM managers from India's 100 largest retailers. The research included 100 people. A purposive sampling includes responders for a specified reason. Respondents must be from a retail organisation where AI is used in CRM. The idea was that marketers witnessing AI adoption could better assess its influence on CRM. Respondents were interviewed using open-ended questions. The researcher was prepared to add more questions based on the circumstances to follow the inductive research technique, which does not restrict current hypotheses. Cross-sectional research requires one month to gather respondent data.

Data Analysis

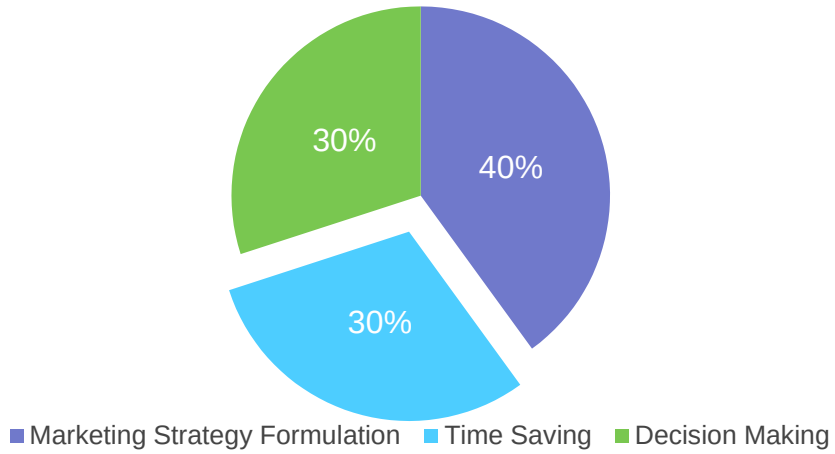
Here, we report the results of our analysis of the survey responses used in this study. One hundred customer relationship managers from one hundred of India's largest retailers were interviewed. Below are the interview's central questions, each of which will be dissected.

Fig 1. Influencing factors in integrating AI in CRM post pandemic



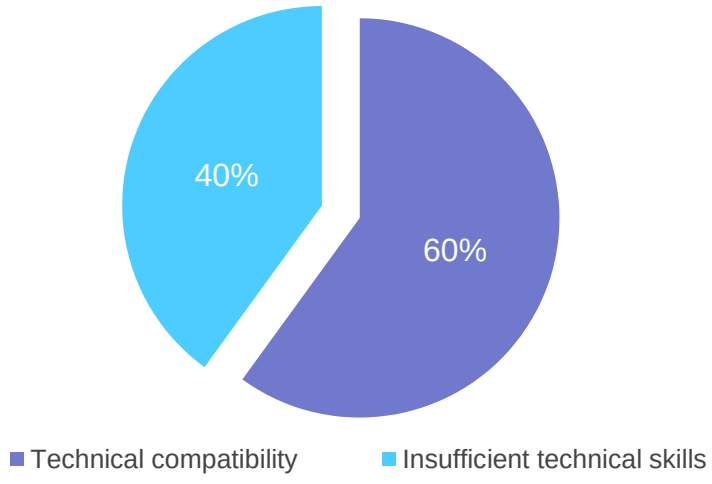
A majority of respondents (60%) cite the need to remain competitive as a motivating reason in their decision to integrate AI in CRM in the wake of the epidemic (fig. 1). Companies are pressured to deploy AI for marketing purposes to stay competitive. The corporation's management is considering implementing AI into their marketing strategies due to media interest, competitive pressure, and the company's advanced digital maturity. The corporation understood that to separate itself from rivals, it must incorporate AI into its business activities. The corporation realised clients wanted the finest offers and performance, so they included AI software.

Fig 2. Benefits of integrating AI in CRM post pandemic



When we asked them to discuss the advantages of using AI in customer relationship management, diverse opinions were collected from respondents. Thirty per cent of retail businesses hoped to reap the benefits of AI in marketing by incorporating it into their CRM processes. AI helped the company enhance marketing procedures in the post-pandemic period. It improved conversion rates, consumer comprehension, and marketing decisions. It boosted ROI. AI-based software may give pricing and product development insights. AI-based marketing software allows companies to deliver better service and more excellent value to clients, which increases customer happiness. 40% of organisations use AI for marketing strategy. 30% of firms utilise AI for decision-making because it improves data analysis and marketing operations.

Fig 3. Challenge in integrating AI in CRM post pandemic



60% of respondents (fig 3) said technological compatibility is the biggest issue of AI integration. The organisation sought to make its system compatible with the central CRM system. It's still the company's most significant difficulty, and they are attempting to improve it. 40% of respondents said a team's lack of technical expertise is the most incredible AI-related difficulty. Adopting new technologies in a firm post-pandemic is a transformation, and it's crucial to recognise and manage the hurdles. Retailers should embrace new technologies for a competitive edge. Respondents said data is the most crucial component of AI, thus,

it's also the largest problem. According to respondents, consumer data is the most important ethical consideration. According to a response, even the development team can't grasp the AI option. Unethical decisions may become a company's worst issue.

Method	N	Mean	SD	SE	t'	Significance Level
Pre AI	100	16.5	3.83	1.38	4.03	Significant at 0.01 level
Post AI	100	22.1	1.68			

Table 1. Hypothesis testing

Significant at the 0.05 level, the estimated t-value of 4.03 indicates. In light of this, we must conclude that the theory is false. There seems to be a substantial difference between the two approaches. As can be seen in the table below, the widespread use of AI in the retail industry after the pandemic has improved customer relationship management (CRM) and bottom line results.

DISCUSSION AND INTERPRETATION

After the epidemic, most respondents said they employed AI for practically all of their most significant marketing tasks, including customer relationship management. The use of AI in marketing alters the dynamics of the whole firm. In a similar vein, it alters the company's planned strategy. Prior to the introduction of AI in CRM, efforts were made to bolster advertising budgets and broaden product offerings. CRM managers had a more nuanced grasp of marketing, sales, and operational trends when AI was implemented, drawing them to the field of business intelligence. They constructed forecasting models using the collected data to foresee potential moves.

Consequently, responsiveness and productivity were enhanced. As a corollary, most retail corporations are deciding where to invest their money in future AI development. Following the introduction of AI, the firm shifted its attention to expanding its presence on social media, improving personalisation, data collection, search engine optimisation, streamlining payment procedures, and increasing sales.

CONCLUSION

This research demonstrates that artificial intelligence (AI) has revolutionised how businesses reach out to clients before and after the epidemic. The advent of AI-enabled marketing approaches has allowed for collecting massive volumes of data and analysing quite subtle patterns within that data. Marketers can now contact more potential consumers, zero in on the proper demographics, choose the best marketing strategy, and automatically divide the market into several segments using AI technologies like machine learning and deep learning algorithms. Sales, profits, brand loyalty, and customer retention can all be increased, and customers can be kept as loyal as possible, all with the help of marketing managers, who can now foresee the results of every move and dollar spent. Artificial intelligence (AI) not only provides the marketing team with all the pertinent data about the consumers but also analyses data in a manner that reveals the customers' wants and preferences. When AI-enabled customer relationship management is implemented, marketing managers have more time to think creatively and look for patterns that can develop novel ideas to meet even the most basic demands of customers, resulting in increased value and sustainable expansion for the business.

According to Fletcher and Griffiths (2020), the Covid-19 pandemic has increased the digital transformation of all organisations. Countries worldwide, particularly India, have proposed solutions for the digitisation and intellectualisation of the retail sector. However, it must be noted that relevant research on the application of AI technology in retail is still minimal. Under continuous optimisation of the business environment and guidance of national strategic emerging industry policies, it is possible to focus further on the retail sector's organisational, technical, and environmental challenges when adopting AI technology in the post-pandemic era.

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