Artificial Intelligence In Strengthening The Operations Of E-Commerce Based Business

Paper Citation:

Introduction

AI and related technologies like IoT, big data, blockchain are hugely disrupting business operations.AI holds immense potential specifically for marketing functions within an organization.Paper conducts exhaustive literature review of marketing papers from 1982 to 2020.Aims to identify key themes, top authors, sources through bibliometric analysis.Network analysis to understand intellectual structure and offer future research framework.New AI applications in ecommerce outlined - chatbots, recommendations, warehouse automation

AI Applications in Ecommerce

Chatbots:
- Allow two-way communication via text or voice using NLP and speech recognition
- Eg. Amazon Lex used for customer service and product ordering via voice conversations

Recommendation engines
- Suggest relevant products by analyzing user's purchase history
- Amazon shopping cart recommendations based on current items and past purchases

Warehouse automation
- Use of robots for managing inventory, storage and retrieval
- Amazon has over 100,000 warehouse robots leading to greater efficiency

Virtual shopping assistants
- AI powered smart devices assisting users in online purchases

- Amazon Echo understands voice commands allowing hands-free shopping

Adoption by Ecommerce Players

- ❖ Flipkart & Microsoft: Building "Mira"
  - ★ to analyze customer journeys and offer personalized experiences
- ❖ Myntra using AI for:
  - ★ Product recommendations to users
  - ★ Automating quality checks for returned items
- ❖ Swiggy building a "food graph"
  - ★ To map dishes, ingredients, variation
  - ★ Combined with user history for personalized recommendations
- ❖ Nykaa partnered Verloop.io
  - ★ for AI powered chatbots managing common support queries
  - ★ helped address repetitive customer requests
- ❖ Byju's
  - ★ Acquired Osmo to gain AI expertise and build capabilities in areas like augmented reality and virtual reality.
  - ★ Uses data analysis and student learning patterns to improve content.
- ❖ MakeMyTrip
  - ★ Uses AI chatbots to make recommendations to customers on flights, hotels, transportation etc
  - ★ Implemented voice-based ticket bookings, allowing customers to just speak to the app's chatbot to complete reservations easily.
- ❖ McDonald's
  - ★ Acquired DynamicYield, a personalization platform, to improve customer experience via tailored recommendations and offers based on purchase history patterns.
  - ★ Leveraging analytics across global operations data.