

Chapter 10

Application of MIS in E-CRM: A Literature Review in FMCG Supply Chain

Aysha Abdulla

Ibn Rushd College for Management Sciences, Saudi Arabia

ABSTRACT

The proliferating demands of consumers today have sparked the need for ECRM, leveraging the technological advancements in MIS and its applications. This chapter elaborates tracking and maintaining ECRM by means of big data analytics tools and artificial intelligence algorithms. It elucidates the predictions and forecasts a business makes based on consumer behaviour. The chapter further delves into the various avenues of artificial intelligence (AI). The taxonomy of AI is explained, and its decision making capability is applied to design and simulate effective SCM systems. Various AI methods are holistically applied to the FMCG supply chain context. In this chapter, the role of big data analytics in aiding the enterprises to maintain ECRM by studying consumer preferences and choices is explored, further advancing into its applications in maintaining FMCG supply chain. This research report provides the various methods of AI used in supply chain and the data analytics tools employed in maintaining ECRM and the FMCG supply chain.

INTRODUCTION

CRM is a widely used acronym that employs long term conducive relations with the customers in order to drive lucrative business value. The avalanche of technological advancement has revolutionized the business models with unprecedented CRM

DOI: 10.4018/978-1-6684-5386-5.ch010

implementations. CRM has thus evolved into ECRM in the recent decades to lure and retain complacent customers through various electronic means. Increased access to customer data via online resources such as social network platforms, various search engines and the creation and storing of cookies facilitate ECRM practices by accumulating swathes of data. Substantial developments in the fields of AI and ML are intricately related to ECRM optimization as they are used to model the various aspects of ECRM. ML models provide a myriad of benefits, by automating the process of purchasing commodities. This means of buying is enhanced further by elucidating the inevitable customer's predisposition into future investments. On the contrary, these models are also effective in avoiding any appalling confrontations the business has to face by predicting the predisposition of a customer to cease to avail its services. An affluent database of customers affirms a thriving business. ECRM paves the path to effective interaction and a better customer experience leading to intelligent ways of developing and sustaining customer ties. Therefore it vividly implies that enterprises with ECRM automation has sustainable customer retention. Several factors like stringent competition in the market, advancements in IT globalization and accelerating customer expectations have revamped the organizations. Thus, there is tremendous competition among enterprises and their supply chains. An agile supply chain requires a mammoth of data to be handled. This explosion in the volume of data has caused the development of various big data analytic technologies that can intelligently analyze large volume of data, which is the dire need of the situation.

This chapter begins with applications of AI in ECRM, the second section discusses Big Data analytics and its alliance to ECRM. It further delves into illustrating the versatility of AI technologies in agile FMCG supply chain. The subsequent section explains the concept of Big Data and its use in defining the current FMCG supply chain trends. Finally, it concludes with recommendations for future research.

LITERATURE REVIEW

AI in ECRM

AI is the technology by which machines can emulate human intelligence and all the endeavours. AI has come a long way evolving through various phases. It has ML models implementing algorithms that learn from diverse sources, take decisions and act beyond human contemplation. It would transform human lives to a degree surpassing technologies in transportation and electricity that have enriched our lives. Braun & Garriga (2018) have proposed that ML models in CRM are beyond statistical computations and implements machine learning. Chen & Popovich

26 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage: www.igi-global.com/chapter/application-of-mis-in-e-crm/312117

Related Content

Understanding Investor Satisfaction of Financial Products Under the SLP Approach: An Attempt to Understand Investor Priorities

Shradhanjali Panda and Sanjeeb Kumar Dey (2023). *Handbook of Research on the Interplay Between Service Quality and Customer Delight* (pp. 353-370).

www.irma-international.org/chapter/understanding-investor-satisfaction-of-financial-products-under-the-slp-approach/318116

Role of Sensory Marketing in Millennials' Online Food Aggregator Consumption Patterns: A Brand Equity Study

Amrinder Singh, Amandeep Singh, Geetika Madaan and Murat Unanoglu (2023). *Promoting Consumer Engagement Through Emotional Branding and Sensory Marketing* (pp. 131-144).

www.irma-international.org/chapter/role-of-sensory-marketing-in-millennials-online-food-aggregator-consumption-patterns/314511

The Almost Perfect Tourist Map

Luiza Gomes do Valle Vasconcellos (2024). *Connecting With Consumers Through Effective Personalization and Programmatic Advertising* (pp. 166-181).

www.irma-international.org/chapter/the-almost-perfect-tourist-map/336649

Blockchain and Customer Engagement

Fatawu Alhassan, Stanley Cowther, Sussana Antwi-Boasiako, Alamu Elizabeth Kehinde and Amodaah Deborah Apusiyine (2024). *The Rise of Blockchain Applications in Customer Experience* (pp. 105-116).

www.irma-international.org/chapter/blockchain-and-customer-engagement/333913

The Use of Social Media: Influence of Content Marketing for Brazilian Health Industry SMEs

Zaíla Oliveira, Sara Teixeira, Sandrina Teixeira and Joaquim Monteiro Pratas (2024). *Connecting With Consumers Through Effective Personalization and Programmatic Advertising* (pp. 243-267).

www.irma-international.org/chapter/the-use-of-social-media/336653