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Circular & Digital: Managing for a Sustainable Future

Part 1

THE APPLICABILITY OF DEEP LEARNING NETWORKS IN BRAND MANAGEMENT

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1 INTRODUCTION

Brand management entails creating ways to preserve, improve, and sustain a brand's image while ensuring it connects with the target audience. It focuses on increasing brand equity via consistent messaging and consumer interactions. To maintain close relationships with the consumers the brand managers should maintain strong strategies for brand management with reputation and loyal customer base associated with the products for perceiving brand equity and higher revenue. The sequence of activities and steps for promoting the product and service of the company with specific goals through digital media events television and radio to conduct a good marketing campaign for popularization of the brand [compare 1,2,3].

2 MATERIAL AND METHODS

The study's main goal is to anticipate customer respondents' reactions to an offer for a product or service. The proposed methodology includes data sets of marketing campaigns for different products including introducing the product launch campaign, public relations campaign, email marketing campaign, user generator content campaign, social media campaign, search engine campaign, rebranding campaign, and brand awareness campaign. The marketing campaign includes key variables like time of year, call to action, offer, sales piece design, copy, and mailing list. By analysing the dataset, researchers and analysts can boost the efficiency of the marketing campaign in brand management using CNN and RNN-LSTM a marketing campaign to develop the response model for providing significant boosting for increasing the efficiency of the marketing campaign through reduced expenses and increased responses. The proposed algorithm includes data collection of marketing campaigns in brand management of different product datasets from Kaggle. The collected data set is pre-processed and the data is selected for the training and testing process the trained data is then tested using two different deep learning techniques that include CNN and RNN-LSTM. A cohesive brand improves awareness and builds a strong reputation by properly analysing datasets using deep learning techniques such as CNN and RNN-LSTM. Brand management strategies include transferring the company's brand objective to each content for the brand's marketing and sales strategies for the brand's launch to social publications. The brand management process starts with analysing, updating and monitoring brand performance to achieve a strong brand identity.



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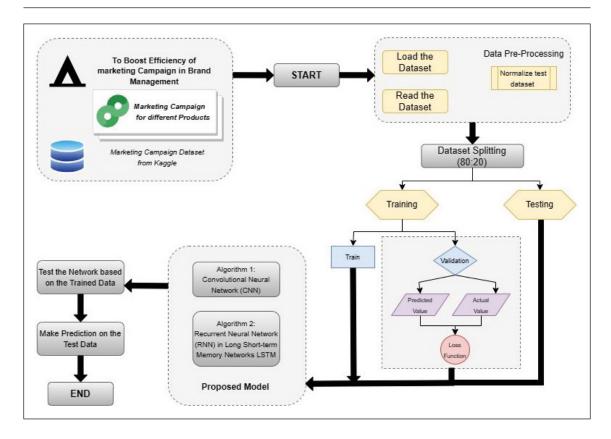


Fig. 1: Proposed methodology for marketing campaign efficiency in brand management

3 RESULTS

The research study's main contribution is brand management using deep learning techniques such as Convolutional Neural Networks (CNN) and Recurrent Neural Networks (RNN) for marketing campaigns to develop a response model that provides significant boosting for increasing the efficiency of marketing campaigns through reduced expenses and increased responses. The trained model boosts the efficiency of marketing campaigns through reduced expenses and increased responses using two deep learning algorithms. Finally, CNN and RNN-LSTM algorithms are compared for better accuracy for boosting the efficiency in brand management.

4 CONCLUSIONS

Deep learning techniques such as convolutional and recurrent neural networks are utilized in marketing campaigns for brand management to develop response models that significantly improve the efficiency of marketing campaigns by reducing costs and increasing responses. The study shows the higher accuracy of RNNs compared to CNNs in predicting consumers' reactions to product and service offers.

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