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A Review on Integrating Emotional Intelligence with Artificial Intelligence in Social Media Marketing Among Entrepreneurs

*Yuslina Binti Yusoff¹, Intan Fatimah Binti Anwar², Syarifah Bahiyah Rahayu³, Noor Faizah Binti Mohd Lajin⁴, Munawir bin Ridzwan⁵

 ¹Faculty of Business and Management, University Teknologi MARA, Campus Kelantan, Malaysia
²Faculty of Economics and Muamalat, Universiti Sains Islam Malaysia, Malaysia
³Cyber Security and Digital Industrial Revolution Centre, National Defence University of Malaysia, Malaysia
³Department of Defense Science, Faculty of Defense Science and Technology, National Defence University of Malaysia, Malaysia
⁴Faculty of Business and Management, Universiti Teknologi MARA, Campus Selangor, Puncak Alam, Malaysia
⁵International, Industrial & Institutional Partnership Department, Universiti Kuala Lumpur,

Malaysia

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ABSTRACT

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Emotion AI is a rapidly growing field that combines artificial intelligence (AI) with emotional intelligence (EI) to analyze and understand human emotions. This technology has the potential to revolutionize the way that entrepreneurs use social media marketing (SMM). In this paper, we explore the potential of emotion AI to improve SMM campaigns among entrepreneurs. We begin by providing an overview of emotion AI and its potential applications in marketing. We then discuss the challenges and opportunities associated with using emotion AI in SMM. Finally, we provide a number of recommendations for how entrepreneurs can use emotion AI to improve their SMM campaigns. Our findings suggest that emotion AI has the potential to significantly improve the effectiveness of SMM campaigns. By understanding the emotions of their target audiences, entrepreneurs can create more personalized and engaging content that resonates with their customers. This can lead to increased brand awareness, improved customer loyalty, and increased sales. However, it is important to note that emotion AI is still in its early stages of development. As a result, several challenges are associated with using this technology in SMM. For example, the accuracy of emotion AI solutions can vary, and there is a risk that this technology could be used to manipulate users. Despite these challenges, we believe that emotion AI has the potential to revolutionize the way that entrepreneurs use SMM.

	By carefully considering the challenges and opportunities associated with this technology, entrepreneurs can use emotional AI to create more effective and engaging SMM campaigns.
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Corresponding Author:

*Yuslina binti Yusoff, Universiti Teknologi MARA (UiTM) Cawangan Kelantan, Bukit Ilmu 18500 Machang, Kelantan Email:yuslinayusoff@uitm.edu.my



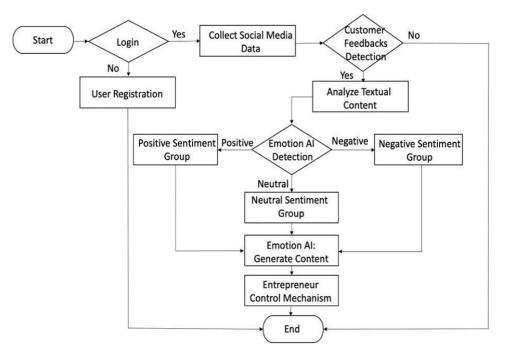
INTRODUCTION

In this era of advanced technology, emotional intelligence has emerged as a crucial factor in cultivating successful relationships between businesses and consumers (Fusté-Forné & Jamal, 2021). By adopting emotionally intelligent approaches, organizations able to enhance customer engagement and establish a deeper connection grounded in trust and mutual understanding. This ultimately leads to increased loyalty and satisfaction among customers. Entrepreneurs can effectively analyze and interpret emotional data from social media posts to gain valuable insights into customer emotions and preferences by harnessing the power of artificial intelligence (Shaji George et al., 2023).

When it comes to social media marketing, the integration of emotional intelligence with artificial intelligence is a topic that is of utmost significance and holds an enormous amount of attention among business owners. Shaji George et al., (2023) proved that emotional intelligence, which may be illustrated as the capacity to recognise, comprehend, and effectively manage emotions, is an essential component that contributes to successful social interactions. According to Noermijati et al., (2019), this interaction enables business owners to engage with the members of their target audience on a deeper level and gain a better knowledge of their wants and feelings, which plays a vital part in social media marketing. Therefore, entrepreneurs shall improve their understanding on customer behaviour and emotion analysis by implementing artificial intelligence into their social media marketing strategy (Al-Mohaimeed et al., 2022).

This integration has the potential to assist business owners in developing marketing efforts that are more focused and personalized, ultimately leading to improved consumer engagement and loyalty. In his study Burlacu, (2023) found that through binding emotional intelligence and understanding the emotions conveyed in the prospective of consumers in various sources, such as social media postings, AI-powered systems may offer insightful information about their feelings, preferences, needs, and desires. With this understanding, entrepreneurs can create marketing content that connects on a deeper level with their target audience. Meanwhile, Aladayleh, (2020) discovered that emotionally intelligent approaches not only drive higher levels of customer engagement but also foster stronger connections between businesses and consumers based on trust and mutual understanding.

FLOW CHARTS



- 1. The process starts, indicating the beginning of the application flow.
- 2. Users log in to the app.
- 3. The app collects and stores social media data from the connected accounts, including posts, comments, and reviews.
- 4. The system checks whether feedbacks are detected in the collected data using the Customer Feedback Detection feature.
- 5. If feedbacks are detected, the textual content undergoes analysis using the Analyze Textual Content module.
- 6. Then the analysis module employs the Emotion AI Detection method, consisting of three tasks:
 - 1. Applying emotion AI algorithms to analyze the collected social media data.
 - 2. Detecting emotional cues, sentiments, and patterns using natural language processing (NLP) techniques.
 - 3. Classifying emotions expressed in textual content into three main sentiment groups: positive sentiment, negative sentiment, and neutral sentiment.
- 7. Based on the emotion classification, the system generates emotionally engaging content using the insights obtained from emotion AI.
- 8. The app then monitors the performance of social media marketing campaigns in near realtime, using key performance indicators (KPIs) such as reach, engagement, conversions, or sentiment shifts.
- 9. Finally, the system flowchart ends.

The application starts with user's login into the apps where all the customer social media accounts are integrated. Then the apps will collect and store social media data (i.e., customer textual content feedbacks) from the connected accounts, including posts, comments, and reviews. If the apps detect the feedbacks, the textual content will be analyzed using emotion detection method. The emotion detection method performs three tasks which are (i) to apply emotion AI algorithms to analyze the collected social media data, (ii) to detect emotional cues, sentiments, and patterns using natural language processing (NLP) techniques, and (iii) to classify emotions expressed in textual content into

three main sentiment groups. The three main sentiment groups are positive sentiment, negative sentiment, and neutral sentiment. For example, the positive sentiment group is including emotions such as joy, excitement, and happiness. Sadness, anger, disappointment are the examples of negative sentiment group, while the neutral sentiment group tend to be an information sharing, fact, and tips and tricks. Next step is to generate content that leverage emotion AI insights to assist entrepreneurs in creating emotionally engaging social media content. The emotion AI may offer suggestions for captions and hashtags that align with the desired emotional response from the target audience. Then, the apps will monitor the performance of social media marketing campaigns in a near real-time using key performance indicators (KPIs) measurement. The examples of KPIs measurement are reach, engagement, conversions, or sentiment shifts.

NOVELTY AND UNIQUENESS

The idea's novelty and uniqueness originated from its comprehensive analysis of the potential of artificial intelligence and emotional intelligence for social media marketing strategy. This idea also offers a number of practical recommendations for entrepreneurs who wish to apply this integration to improve their marketing campaigns, as a powerful tool for improving social media outcomes (Lim & Kim, 2020). The novelty and uniqueness of the idea lies in the following: (1) It is one of the first papers to explore the potential of AI and EI in social media marketing. (2) It proposes a framework for integrating AI and EI in creating effective social media marketing campaigns. (3) It provides solution to entrepreneurs who used AI and EI to improve their social media marketing strategy outcomes.

This is a novel in its approach to social media marketing as the traditional approaches to social media marketing, which focus on targeting and engagement, is insufficient. In order to be truly effective, social media marketing campaigns must also appeal to the emotional side of the human brain. This is where EI comes in which identify the emotions of customers feedback and entrepreneurs responds in the social media communication platforms (Zafar et al., 2021).

This skill is essential for entrepreneurs who want to use emotional AI effectively in their social media marketing strategy. As for the conclusion, the novelty and uniqueness of this study is significant for entrepreneurs who want to utilise AI and EI effectively in the social media marketing strategy by focusing on the integration of two emerging and rapidly evolving fields which are emotion AI and social media marketing.

APPLICABILITY

The applicability of the combination of artificial intelligence with emotional intelligence in social media marketing brings forth several areas where it proves beneficial for entrepreneurs (Allen et al., 2021). By integrating AI and EI, entrepreneur can go beyond simple data analysis and emotion tracking. AI can detect emotions expressed in user comments, reviews, and messages, while EI helps interpret and understand those emotions in a nuanced way. This allows entrepreneurs to gain deeper insights into customer feedback, sentiments, and preferences, enabling them to tailor their marketing strategies accordingly (Lim & Kim, 2020).

Furthermore, AI with EI can enhance personalised communication on social media platforms. By analyzing user data, AI algorithms can understand individual preferences and emotional states, while EI allows entrepreneurs to craft empathetic and engaging responses (Shaji George et al., 2023). This personalized approach can strengthen customer relationships, increase brand loyalty, and foster positive interactions.

AI also can assist in generating content ideas, but when combined with EI, it can take content creation to a new level. EI enables entrepreneurs s to understand the emotional impact of storytelling and create content that resonates with the audience on an emotional level (Short & Short, 223 C.E.). This helps establish deeper connections, elicit emotional responses, and enhance the overall effectiveness of marketing campaigns.

Besides that, AI can identify influencers based on metrics and demographics, but EI adds an additional layer of analysis by assessing the influencer's emotional alignment with the brand and its target audience (Baudier et al., 2023). This ensures that influencers not only have a large following but also possess emotional qualities that align with the brand's values and objectives.

AI-powered tools on the other hand can detect and monitor social media mentions and trends, but when combined with EI, they can better understand the emotional tone and context behind those mentions. This helps entrepreneurs effectively manage crises, respond empathetically to customer concerns, and protect the brand's reputation (Pongtanalert & Assarut, 2022). AI-powered chatbots are being utilized more frequently in customer support by incorporating emotional intelligence into social signal processing (Pancic, 2023) . The integration of EI enables chatbots to respond empathetically and comprehend customer sentiments. By identifying and addressing customer emotions, chatbots can deliver a customer support experience that is more akin to human interaction, resulting in greater satisfaction.

In conclusion, entrepreneurs can significantly enhance their comprehension of customer emotions, customize their communication approaches, and cultivate more captivating and compassionate experiences by effectively recognising the potential to merge AI with EI in SSM. As a result, customer satisfaction is enhanced, stronger connections with the brand are established, and ultimately, business growth is achieved.

LEVEL OF IMPACT

The potential impact is on the way that entrepreneurs use social media marketing. By integrating EI and AI, entrepreneurs can create more personalized and engaging SMM campaigns that resonate with their target audiences. This can lead to increased brand awareness, improved customer loyalty, and increased sales.



Figure 1: Word Cloud

CONCLUSION AND RECOMMENDATION

To conclude, the application of artificial intelligence in analyzing customer emotion and gathering data allows decision-makers to extract valuable information. This leads to the effective design of customer satisfaction strategies and enables marketers to manage customer engagement effectively. (Udimal et al., 2019). Additionally, AI can personalize services based on individual needs, meet emotional requirements, and improve basic shopping experiences for customers. By generating insights from various sources of data, AI can predict behaviors such as customer churn and make personalized recommendations for each individual based on past interactions (Pongtanalert & Assarut, 2022). Furthermore, AI technology supports human service employees by engaging with customers at different stages of their journey. In general, this phenomenon adds to a favorable influence on businesses by enhancing conversion rates through the implementation of intelligent marketing strategies that are customized to suit the preferences and needs of individual consumers. This aids marketers in formulating efficient customer satisfaction strategies and overseeing workforce engagement. Moreover according to the study conducted by Shrivastava, (2023) artificial intelligence has the capability to offer tailored and individualized services to consumers, effectively catering to their emotional requirements and more effectively addressing their fundamental necessities.

In summary, it can be argued that the implementation of AI technology holds significant promise in augmenting client satisfaction and optimizing marketing tactics (Nazir et al., 2023). Through the utilization of artificial intelligence technologies for the examination of extensive customer data sets, marketers could get significant insights pertaining to client preferences and behaviors. This can facilitate marketers in gaining a deeper comprehension of customer-brand interactions, hence enabling the implementation of more customized and focused communication strategies. According to the research conducted by Nwachukwu & Affen, (2023) artificial intelligence technology has the potential to assist with sentiment analysis, enabling marketers to assess client sentiments and adapt their strategy accordingly. In general, the incorporation of artificial intelligence technology into marketing operations holds significant potential for entrepreneurs, as it facilitates the provision of tailored experiences, enhances consumer contentment, and fosters business expansion.

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