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What You See Is What You Get: Using AI-Based Social Media Analytics and Realistic Marketing Model to Improve Customer Experience

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Abstract: The Kingdom of Saudi Arabia's Vision 2030 seeks to increase the number of pilgrims annually. With more than two million Muslims visiting Makkah every year, service providers strive to deliver comfortable, comprehensive services to pilgrims using the latest modern technologies. With growing competition between companies in the Hajj sector, understanding how to enhance consumers' experience and satisfaction is crucial. This study introduces the concept of context-accurate promotional content that describes services and facilities, framed within a 'What You See Is What You Get' marketing concept. Grounded in Expectation Confirmation Theory and the Service Quality Model, it aims to provide a new conceptual framework for the Realistic Marketing Model (RMM). This study applied artificial-intelligence-powered social-media analytics, including multilingual sentiment analysis and topic modelling, to examine expectation—reality gaps during the 2024 Hajj season. Data were collected from publicly available posts on X, using geotags and hashtags related to the 2024 Hajj and Umrah seasons. More than 10,000 posts were extracted using Python scripts and Twitter API v2, filtered by timeframe (pre-trip and on-trip experiences), languages (Arabic and English), and content type (visual, text-based, or captioned emotional reactions related to services such as transportation, accommodation, food, and crowd control). The findings reveal substantial mismatches in accommodation, food, and transportation, underscoring the RMM's role in calibrating expectations, reducing negative disconfirmation, and enhancing overall satisfaction. By establishing a continuous feedback loop between artificial-intelligence-driven social listening and marketing communication, the study demonstrates how the RMM can improve customer trust, reduce complaints, and support Saudi Arabia's Vision 2030 goals. Furthermore, the results highlight that integrating AI-based analytics into marketing strategies enables service providers to identify emotional patterns, predict service failures, and adapt messages in real time to meet pilgrims' dynamic needs.

Keywords: Artificial Intelligence, Social Media Analytics, Context-Aware Analysis, Hajj and Umrah, Customer Experience, customer service, Realistic Marketing model, Vision 2030, Sentiment Analysis.

ما تراه هو ما تحصل عليه: استخدام تحليلات وسائل التواصل الاجتماعي القائمة على الذكاء الاصطناعي ونموذج التسويق الو اقعي لتحسين تجربة العملاء

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المستخلص: تسعى المملكة العربية السعودية من خلال رؤيتها 2030 إلى زيادة أعداد الحجاج سنوياً، ومع تجاوز عدد المسلمين الزائرين لمكة المكرمة أكثر من مليوني حاج سنوياً، يحرص مقدمو الخدمات على تقديم خدمات شاملة ومريحة للحجاج باستخدام أفضل التقنيات الحديثة. ومع تزايد حدة المنافسة بين الشركات العاملة في قطاع الحج، يصبح فهم كيفية تحسين تجربة العملاء ورفع رضاهم أمراً أساسياً. لذلك تقدم هذه الدراسة مفهوم المحتوى الترويجي الدقيق الذي يصف الخدمات والمرافق بشكل واقعي ضمن إطار مفهوم «ما تراه هو ما تحصل عليه» في التسويق. وترتكز على نظرية تأكيد التوقعات ونموذج جودة الخدمة، بهدف تقديم إطار مفاهيمي جديد يعرف باسم نموذج التسويق الواقعي (RMM). وعليه فقد استخدمت هذه الدراسة تحليلات وسائل التواصل الاجتماعي المدعومة بالذكاء الاصطناعي، بما في ذلك تحليل المشاعر متعدد اللغات ونمذجة الموضوعات، لفحص الفجوة بين التوقعات والواقع خلال موسم حج 2024. تم جمع البيانات من منشورات عامة على منصة X باستخدام الوسوم والمواقع الجغرافية المرتبطة بموسمي الحج والعمرة لعام 2024، حيث تم استخراج أكثر من 10,000 منشور باستخدام سكريبتات Python وواجهة Twitter API v2، وتم تصفيتها وفقاً للإطار الزمني (قبل وأثناء الرحلة)، واللغات (العربية والإنجليزية)، ونوع المحتوى (نصي، مرئي، أو تفاعلي عاطفي مرتبط بالنقل أو السكن أو الطعام أو إدارة الحشود). أظهرت النتائج وجود فجوات ملحوظة في السكن والطعام والنقل، مما يبرز دور نموذج التسويق الواقعي في معايرة التوقعات وتقليل عدم التقبل وزيادة الرضا العام للخدمات المقدمة. ومن خلال إنشاء حلقة تغذية راجعة مستمرة بين تحليل المشاعر الذكي والتواصل التسويقي، تُظهر الدراسة كيف يمكن لنموذج RMM أن يعزز الثقة ويقلل الشكاوى ويدعم تحقيق أهداف رؤية المملكة 2030. كما توضح النتائج أن دمج التحليلات المعتمدة على الذكاء الاصطناعي في الاستراتيجيات التسويقية يمكّن مقدمي الخدمات من التعرف على الأنماط العاطفية المتكررة والتنبؤ بنقاط الضعف في الخدمة وضبط الرسائل بشكل فوري لتلبية احتياجات الحجاج المتغيرة.

الكلمات المفتاحية: الذكاء الاصطناعي، تحليلات وسائل التواصل الاجتماعي، التحليل المعتمد على السياق، الحج والعمرة، تجربة العملاء، خدمة العملاء، نموذج التسويق الواقعي، رؤية 2030، تحليل المشاعر.

1. Introduction

With over than two million Muslims visiting Makkah annually, service providers strive to provide comfortable comprehensive services to pilgrims using the latest modern technologies (Alasmari et al, 2024). With growing competition between companies in Hajj sector, understanding how to enhance consumers experience and satisfaction is crucial (Mohammed et al, 2024). Particularly because, the kingdom of Saudi Arabia Vision 2030, introduced a critical objective of "Facilitating hosting more pilgrims and access to the Two Holy Mosques," "Providing high-quality services for Hajj and Umrah pilgrims," (the Vision 2030 Annual Report). With the acceleration of digital transformation, artificial intelligence (AI) and social media, it become crucial to shape a new marketing strategies, particularly within service industries (Vlačić et al, 2021; Kim et al., 2023). AI has been defined in multiple previous studies, each summarising the key concepts of non-human intelligence programmed to perform specific tasks (Dwivedi et al, 2021). Russell and Norvig (2016) defined AI as 'a system's ability to interpret external data correctly, to learn from such data, and to use those learnings to achieve specific goals and tasks through flexible adaptation'. Kaplan and Haenlein (2019) proposed another definition of AI, although in the context of its ability to independently interpret and learn from external data to achieve specific outcomes via flexible adaptation. Moreover, social media platforms have been instrumental in helping tourism industry marketers track user-generated content (UGC) related to travel choices and experiences. Social media data analytics help in framing campaigns for branding as well as enhancing the customers' experiences (Joshi & Rathod, 2021).

AI and social media enable marketers to monitor, predict, and respond to consumer expectations in real time, thereby enhancing personalisation and operational efficiency (Joshi & Rathod, 2021). In religious tourism contexts, AI-enabled sentiment analysis and social media listening provide unique access to authentic consumer insights, including emotional responses and service evaluations (Islam, 2021; Ameen et al., 2021; Prayag et al., 2013). Furthermore, UGC significantly influences traveller perceptions (Aboalganam et al., 2025; Joshi & Rathod, 2021; Zhang et al., 2019). These dynamics are particularly critical in Hajj and Umrah, where emotional intensity elevates the need for authentic, expectation-aligned service delivery. Despite the growing adoption of AI and social media analytics, only scant research has addressed how these tools can close the expectation experience gap by aligning promotional content with actual service, particularly in large-scale and spiritually significant events (Prayag et al., 2013). This study addresses this gap by proposing an AI-driven realistic marketing model (RMM), expressed through a 'What You See Is What You Get' (WYSIWYG) approach, grounded in expectation–confirmation theory (ECT) and the service quality model (SERVQUAL). The framework is aimed at managing expectations, enhancing satisfaction, and reducing the emotional burden caused by expectations. In such contexts as the Hajj, where the priority must be that promotional communications reflect realities, enabling pilgrims to focus fully on their spiritual journey is a key aim.

Recent literature has supported this direction of using social media analytics, as it has been shown to refine service delivery and enhance destination image (Joshi & Rathod, 2021) and personalisation (Huang & Rust, 2022). AI-driven value co-creation (i.e., value that is jointly developed by a business or service provider and the customer, rather than being delivered in a one-way exchange; see Chatterjee et al., 2021) further enables collaboration between consumers and providers, offering efficient and personalised service. Building on these insights, this study's RMM – operating through the WYSIWYG approach – hopes to directly support the research objective of meeting pilgrims' expectations and elevating their satisfaction through realistic service communication. The main research objectives are as follows:

1.1 Research Objectives

- Investigate how social media content shapes pilgrims' expectations of Al-Hajj services.
- Analyse pilgrims' emotional responses using AI-based sentiment analysis of social media posts.
- Develop an RMM (operating through a WYSIWYG approach) that is tailored for service providers.
- Apply ECT and the SERVQUAL to evaluate how the RMM can minimise the expectation–reality gap and improve overall satisfaction.

1.2 Research Problems:

Hajj is a unique and once-in-a-lifetime journey for millions of Muslims worldwide, where trial-and-error approaches or conventional marketing and satisfaction models cannot be applied. Each year, millions of pilgrims simultaneously visit Makkah, Saudi Arabia, performing the same rituals within a highly congested and emotionally charged environment. In such a sacred and large-scale context, pilgrims are not simply consumers but spiritual participants who must feel comfortable, content, and confident that their

expectations are met for their religious journey to be fulfilled. Despite significant national investments and continuous improvement efforts aligned with Saudi Arabia's Vision 2030, a persistent challenge remains: a critical gap between the expectations formed through idealized digital and promotional content and the actual experiences delivered during the pilgrimage. This "expectation—reality" gap, when amplified through social media, can negatively influence individual satisfaction and collective perceptions, potentially harming the country's reputation and overshadowing the billions invested to enhance service quality. Furthermore, the crowded and complex nature of Hajj makes achieving individual satisfaction particularly difficult when collective expectations are not managed effectively. The issue, therefore, extends beyond customer satisfaction, it touches on national reputation, religious authenticity, and strategic Vision 2030 objectives to provide world-class services to pilgrims. This study addresses this unique research problem by proposing an AI-enabled, realistic marketing approach capable of bridging the expectation, reality divide in a spiritually, logistically, and nationally sensitive service ecosystem.

1.3 Research Gap

While Saudi Arabia's Vision 2030 strategically emphasises enhancing the pilgrimage experience through technological innovation and improved service quality, a critical gap remains in understanding how social media—driven expectations align with actual experiences (Ameen et al., 2021; Vlačić et al., 2021; Islam, 2025; Qazi et al., 2017). Prior marketing and tourism research has explored expectation performance gaps in leisure travel (Prayag et al., 2013), yet studies applying these frameworks to religious tourism, particularly through real-time, AI-based analyses of social media content, are notably absent.

Moreover, although the marketing literature has highlighted the importance of customer perception management and value co-creation, little empirical attention has been given to how digital promotional content — especially UGC (Chatterjee et al., 2021; Vlačić et al., 2021; Joshi & Rathod, 2021) — shapes and disrupts perceptions in high-context, emotionally charged environments. This is particularly relevant in the context of the proposed RMM, where alignment between promoted experiences and actual delivery is critical for satisfaction (Islam, 2025; Joshi & Rathod, 2021; Prayag et al., 2013; Qazi et al., 2017; Zhang et al., 2019).

Another underexplored area is the application of AI-powered sentiment and behaviour analytics in religious tourism, whose use in tracking real-time emotional response patterns among pilgrims remains novel. There has also been a lack of region-specific research examining the cultural and emotional dimensions of dissatisfaction when expectations largely formed through online platforms are unmet (Narangajavana et al., 2017; Hassan et al., 2022).

This study addresses these gaps by leveraging AI-based sentiment analysis of social media data to uncover the emotional contours of the pilgrimage experience, as well as by introducing the RMM to directly target the expectation—reality gap (Islam, 2025; Qazi et al., 2017) through context-accurate communication strategies.

Furthermore, despite Saudi Arabia's ambitious Vision 2030 goals to increase pilgrim numbers and improve service quality, accurately capturing pilgrims' real-time expectations and emotional responses remains a significant challenge (Saudi Vision 2030; Alharbi & Drew, 2014; Suban, 2024). Traditional methods, such as surveys and interviews, often fail to provide authentic and timely feedback during pilgrimages due to bias and delayed reporting (Creswell, 2014). This highlights the urgent need for a comprehensive RMM, supported by AI-enabled social media analytics, to provide actionable insights for more transparent, expectation-aligned marketing and service strategies in the Hajj and Umrah ecosystem (Cambria et al., 2017).

1.4 Research Questions

1. How do social media platforms shape pilgrims' expectations of Al-Hajj services?
2. To what extent does idealised marketing imagery, when inconsistent with the actual service experience, influence customer satisfaction?
3. What emotional feelings are expressed in pilgrims' social media posts regarding service delivery during Al-Hajj?
4. How can the RMM, supported by AI-driven social media analytics, bridge the expectation—reality gap and enhance customer satisfaction?

This study contributes to knowledge at the intersection of digital marketing, religious tourism, and AI by addressing a critical gap in consumers' expectation during the Hajj. Providing a new realistic marketing strategies operationalised through the WYSIWYG approach, which aligns promotional content with actual service delivery, thereby building better experiences, trust, and long-term loyalty

among pilgrims (Almasoud, 2025). By embedding WYSIWYG principles within the broader RMM, this study demonstrates how expectation–performance gaps can be reduced for the betterment of the overall pilgrimage experience. While previous research has explored tourist satisfaction and experiential gaps in leisure travel (Joshi & Rathod, 2021; Prayag et al., 2013; Zhang et al., 2019), this study applies real-time sentiment analysis to the religious tourism sector, which is characterised by high emotional intensity, cultural complexity, and logistical challenges. By operating AI-powered social media analytics, this research offers an empirical model to measure and interpret the emotions, expectations, and dissatisfactions of pilgrims based on UGC during the 1445 Hajj season. To achieve these aims, this study introduced the RMM, operating through the WYSIWYG approach, which aligns digital promotion with actual service realities to reduce expectation–reality gaps and improve overall satisfaction. Grounded in ECT and the SERVQUAL, the framework integrates real-time sentiment tracking and topic modelling into customer experience, providing actionable insights for service providers and policymakers under Saudi Arabia's Vision 2030 (Vision 2030, 2016). In so doing, this study contributes to more data-driven, expectation-aligned religious tourism services, while also advancing theoretical discourse on AI-driven value co-creation and customer behaviour prediction in high-context service environments, such as the Hajj. The following section illustrates in more details the importance of this study.

1.5 Importance of the study

Hajj is the biggest gathering for Muslims around the world, reaching over than two million pilgrim visiting Makkah, Saudi Arabia annually. Service providers in the Kingdome of Saudi Arabia strive to provide comfortable comprehensive services to pilgrims using the latest modern technologies (Alasmari, et al., 2024). This study is significantly important because it leverages advanced artificial intelligence (AI)-powered social media analytics to explore the critical gap between pilgrims' expectations and their actual experiences during the Hajj season. Providing an understanding to this expectation–reality gap is essential, as mismatches often lead to decreased customer satisfaction and can negatively impact the service providers reputations (Kim & Sundar, 2011). Since, Sentiment analysis plays a crucial role in understanding public opinion over social media trends (Alghamdi, 2024). Therefore, used in this study, for the analysis of vast amounts of user-generated content in multiple languages, over social media, providing a rich and real-time perspective on pilgrims' emotions and concerns that traditional survey methods may did not grasp.

Further, this study holds significant importance in several key areas. First, it contributes to advancing knowledge at the intersection of religious tourism, digital marketing, and AI by applying the RMM to real-time social media data of Hajj and Umrah pilgrims (Cambria et al., 2017). This approach offers fresh insights into pilgrims' authentic emotions and expectations, which traditional survey methods often fail to capture due to bias or delayed feedback (Creswell, 2014).

Second, by understanding how social media content shapes pilgrims' expectations and emotional responses, the study provides valuable guidance for service providers and marketers in the religious tourism sector (Ameen et al., 2021). This is especially critical in the context of Saudi Arabia's Vision 2030, which aims to vastly increase the number of pilgrims while maintaining high-quality services and customer satisfaction (Saudi Vision 2030, 2016; Program Service Guests of the Haram, 2025).

Finally, the study addresses the urgent need for realistic marketing strategies operationalised through the WYSIWYG approach, which aligns promotional content with actual service delivery, thereby building trust and long-term loyalty among pilgrims. By embedding WYSIWYG principles within the broader RMM, this study demonstrates how expectation–performance gaps can be reduced for the betterment of the overall pilgrimage experience. The findings can assist policymakers and tourism stakeholders in designing data-driven and culturally sensitive frameworks that respond dynamically to pilgrims' real-time sentiments and needs. This can contribute to the Kingdom's broader goals of economic diversification, sustainable tourism development, and an enhanced global reputation as a premier destination for religious tourism (Vision 2030, 2016).

Given the critical importance of capturing authentic and timely insights into pilgrims' expectations and emotional responses, this study adopts a model-driven, data-centred methodology that leverages AI-based sentiment analysis of social media content. Unlike traditional surveys or interviews, this approach enables real-time, unbiased analyses of user-generated data during the Hajj and Umrah seasons (Creswell, 2014). The methodology focuses on collecting and analysing large volumes of digital content to uncover sentiment patterns, identify key themes related to service satisfaction and dissatisfaction, and evaluate how these insights can inform the application of the RMM. This is directly aligned with the study's goal of bridging the gap between pilgrims' expectations shaped by social media and

their actual experiences, thereby contributing to improved service delivery under Saudi Arabia's Vision 2030 framework (Saudi Vision 2030, 2016). Thus, this study can hypotheses the following:

1.6 Research Hypothesis

H1: Exposure to idealized content about Al Hajj services on social media platforms leads to higher expectations among consumers prior to the pilgrimage.

H2: Pilgrims who perceive a greater inconsistency between idealized marketing imagery and their actual service experience during Al Hajj report lower levels of customer satisfaction.

H3: Implementation of the Reality-Matching Model (RMM), informed by AI-driven social media analytics, significantly reduces the expectation, reality gap and leads to higher customer satisfaction among pilgrims.

1.7 Conceptual Framework

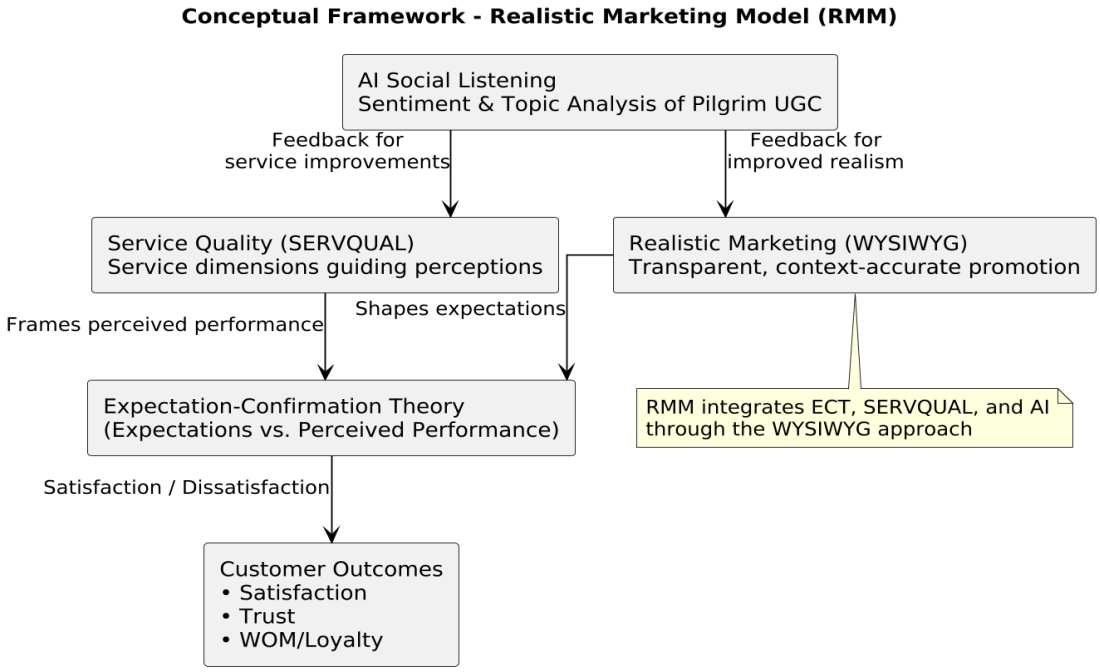


Figure 1: Conceptual framework of the Realistic Marketing Model (RMM)

Based on the research gaps, and hypothesis, the RMM is developed grounded in three complementary theoretical constructs presented in Tabel 1: ECT, the SERQUAL, and a novel AI-driven WYSIWYG approach. Together, these elements form the basis of the RMM, which this study introduces as an original contribution to aligning marketing with service realities through social media analytics (see Figure 1). In the following section, the relevant literature is reviewed and discussed in relation to the suggested model.

2. Literature Review

2.1 Customer-Centric Marketing and Relationship Management

In today's highly competitive business environment, marketing activities have shifted from product-centric strategies to customer-centric approaches. Organisations now prioritise understanding and fulfilling customer needs to gain market share, achieve differentiation, and deliver added value (Guerch, 2011). This shift is particularly important in service industries, such as tourism and hospitality, where customer experience is central to an organisation's initial and continued success.

Building long-term relationships with customers is now considered a cornerstone of modern marketing. As emphasised by Armstrong and Kotler (2016), customer relationship management (CRM) involves building and maintaining profitable customer relationships by delivering superior value and satisfaction. Similarly, Kotler et al. (2014) defined CRM as the process of collecting detailed, individualised customer information and meticulously managing all customer interactions to foster loyalty and retention. In the context

of Hajj and Umrah services, where emotional engagement and trust are essential, the ability to build and sustain such relationships is crucial.

2.2 Summary of Key Literature Themes

Table 1: Theme Key Insights Representative References

Theme	Key Insights	Representative References
Social Media Analytics	Social media offers real-time insights into tourist sentiment and expectations via user-generated content.	Ameen et al. (2021); Saura et al. (2018)
Sentiment Analysis in Tourism	Machine learning and lexicon-based tools can detect emotional patterns in Arabic/English posts, helping evaluate service satisfaction.	Al Sari et al. (2022); Abeysinghe et al. (2018)
AI & Value Co-Creation	AI technologies co-create value, increase efficiency, and personalise services.	Chatterjee et al. (2021); Vlačić et al. (2021); Joshi and Rathod (2021)
Customer Behaviour & Emotional Insights	Understanding customers' emotional drivers can predict future behaviour and improve service delivery.	Kotler et al. (2014); Narangajavana et al. (2017); Prayag et al. (2013); Suban (2024)
Expectation–Reality Gap	Discrepancies between promotional content and real experiences create dissatisfaction	Islam (2025); Joshi and Rathod (2021); Prayag et al. (2013); Qazi et al. (2017); Zhang et al. (2019)
Realistic Marketing	Aligning marketing messages with actual service quality improves customer satisfaction	Kassim and Abdullah (2010); Kaur et al. (2020)
Vision 2030 Context	Saudi Vision 2030 emphasises improving service quality and expanding pilgrim capacity, requiring smarter expectation management strategies.	Vision 2030 Program Service Guests of the Haram (2025)

As shown in Table 1, a growing body of research in AI-driven marketing, sentiment analysis, and customer experience management across tourism sectors has emerged. However, key gaps remain, particularly in high-stakes religious tourism contexts. While previous studies have shown how social media analytics and AI tools can extract sentiment and predict tourist behaviour (Joshi & Rathod, 2021; Ameen et al., 2021), few have applied these methods specifically to Arabic content or within the emotionally charged, culturally specific pilgrimage environment. Moreover, although the literature acknowledges the expectation–reality gap (e.g., Joshi & Rathod, 2021; Islam, 2025; Qazi et al., 2017), limited attention has been given to how WYSIWYG marketing strategies could mitigate this issue in religious tourism. This is particularly critical as Saudi Arabia moves towards its Vision 2030 goals, seeking to increase pilgrim satisfaction while scaling operations. Thus, there is a pressing need for empirical studies that integrate AI, realistic marketing, and sentiment analysis to better align expectations with real experiences (Islam, 2025; Qazi et al., 2017) in the context of the Hajj and Umrah.

2.3 Social Media Analytics and Sentiment Analysis

Social media platforms have become crucial to the tourism industry, offering rich insights into tourists' perceptions, preferences, and emotional experiences (Ameen et al., 2021). These social media activities provide feedback, capturing authentic descriptions that are often missed by such traditional data-collection tools as surveys or interviews. To extract meaning from digital content, sentiment analysis – whether through lexicon-based methods or machine learning algorithms – has become a widely adopted technique in tourism research (Saura et al., 2018; Abeysinghe et al., 2018). Such tools enable researchers and practitioners to monitor satisfaction levels, identify service pain points, and track evolving expectations. For example, social media analytics have been instrumental in identifying underperforming aspects of tourism services and triggering timely interventions to manage brand reputation and enhance service quality. These insights contribute to not only improving individual customer experiences but also reinforcing broader destination strategies and overall experience.

In the context of Saudi Arabia, the application of sentiment analysis has extended to the religious tourism sector, particularly during Al-Hajj season. In a recent study, Al Sari et al. (2022) demonstrated the successful use of machine learning models to classify Arabic-language social media posts regarding travel experiences into positive and negative sentiments. This highlights the value of AI-based sentiment analysis in analysing the nuanced emotions of pilgrims, providing a foundation for service improvements tailored to cultural and linguistic specificities.

2.4 AI and Value Co-creation in Customer Services

AI plays a transformative role in reshaping customer experiences in the tourism sector by enabling personalised service delivery. Where customer expectations are constantly evolving, AI technologies enable service providers to dynamically respond to these expectations. AI-driven systems are capable of analysing large volumes of customer data, ranging from behavioural patterns to real-time feedback, to deliver experiences that align more closely with individual wants and emotional needs (Vlačić et al., 2021; Prayag et al., 2013). Key applications of AI in tourism include chatbots, which offer 24/7 customer service and handle a high volume of inquiries with instant, context-aware responses; AI-enabled kiosks that assist with check-ins, ticketing, and navigation at airports or hotels; and service robots that can perform repetitive tasks, such as room delivery or concierge services with consistency and efficiency. Additionally, personalisation engines powered by machine learning algorithms recommend tailored experiences, packages, or content based on user profiles and historical data, thereby increasing customer satisfaction and conversion rates (Tuomi et al., 2021).

Beyond operational efficiency, AI contributes to value co-creation by helping customers become active participants in designing their own experiences. For instance, sentiment analysis tools can gauge travellers' emotional responses (e.g., joy, frustration, anxiety) in real time through their digital interactions, allowing organisations to adapt offerings accordingly. In the context of religious tourism, such as Al-Hajj and Umrah, AI tools can monitor social media feedback to detect dissatisfaction patterns early and inform responsive service strategies. Thus, AI not only enhances operational performance but also deepens emotional engagement, a critical factor in high-involvement service contexts (Huang & Rust, 2022).

2.5 The Expectation–Reality Gap & Realistic Marketing

A critical challenge in Hajj, particularly within its religious variety, is the expectation reality gap, where visitors' pre-formed perceptions based on promotional content do not align with their actual experiences. This misalignment often results in dissatisfaction, emotional dissonance, and diminished loyalty. The concept of WYSIWYG marketing has emerged as a practical framework for addressing this challenge. WYSIWYG marketing advocates for transparent, accurate representations of services and facilities, aiming to align consumer expectations with the reality of service delivery (Kaur et al., 2020). In emotionally charged, culturally significant experiences, such as pilgrimages, this alignment is crucial for maintaining trust and perceived authenticity.

Recent advances in AI – and especially in large language models (LLMs) – have enabled researchers and service providers to mine UGC from social media to identify expectation themes, service gaps, and emotional responses in real time (Lan et al., 2025). These technologies allow for the extraction of latent expectation constructs, providing granular insights into what customers hope to experience versus what they actually receive. By integrating these insights into realistic marketing strategies, service providers can reduce cognitive dissonance, foster satisfaction, and co-create more authentic, personalised experiences. In such contexts as those relating to Umrah and the Hajj, where emotional, spiritual, and logistical expectations are high, bridging the expectation–reality gap is not only a matter of customer satisfaction but also ethical responsibility and reputational sustainability.

3. Theoretical framework

3.1 Expectation–Confirmation Theory (ECT)

The ECT posits that satisfaction results from the comparison between pre-experience expectations, perceived performance, and the resulting disconfirmation (Oliver, 1980). Expectations are formed based on a combination of marketing communications, social media discourse, word-of-mouth, and previous experiences (Oliver, 1980).

According to ECT, satisfaction is a function of the discrepancy between expected and perceived performance. When pilgrims perceive that actual services fall short of their expectations due to, for example, overcrowding, service delays, or poor facility conditions, negative disconfirmation occurs, leading to dissatisfaction (Oliver, 1980). Conversely, if performance exceeds expectations, positive

disconfirmation enhances satisfaction and loyalty (Islam, 2025; Joshi & Rathod, 2021; Prayag et al., 2013; Qazi, et al., 2017; Zhang et al., 2019).

In highly emotionally and spiritually charged experiences, these mismatches can significantly impact emotional well-being, satisfaction, and word-of-mouth behaviour. Therefore, managing expectation–performance alignment is not only essential for service providers but also for government-led initiatives, such as Saudi Vision 2030, which aims to implement large-scale improvements to the religious tourism experience.

3.2 SERVQUAL Service Quality Model

The SERVQUAL, developed by Parasuraman et al. (1988), measures perceived service quality by assessing gaps between customer expectations and actual service performance. It conceptualises service quality in terms of both objective performance and how well said performance meets or exceeds expectations. SERVQUAL is structured around five dimensions, often referred to as RATER:

- Reliability: the ability to perform the promised service dependably and accurately.
- Assurance: the knowledge, courtesy, and ability of employees to inspire trust and confidence.
- Tangibles: the physical facilities, equipment, personnel appearance, and other tangible elements that influence perceptions.
- Empathy: the provision of caring, individualised attention to customers.
- Responsiveness: the willingness to help customers and provide prompt service.

In the context of the Hajj and Umrah, these dimensions translate into dependable transportation, professional guidance, clean accommodations, empathetic staff support, and timely crowd management (Parasuraman et al., 1988; Armstrong & Kotler, 2016). The SERVQUAL thus complements ECT by identifying which service dimensions most strongly drive disconfirmation or confirmation, and, ultimately, satisfaction.

3.3 AI-Enabled WYSIWYG Marketing Alignment

Building on the theoretical foundations of ECT and the SERVQUAL, this study proposes the RMM, operationalised through the AI-driven WYSIWYG approach (tailored to the religious tourism context). The RMM leverages AI-powered social listening tools to monitor, analyse, and interpret pilgrims' real-time emotional reactions and sentiments expressed on social media platforms during the Hajj and Umrah seasons.

By harnessing live sentiment data, marketers gain actionable insights into pilgrims' authentic experiences, enabling them to adjust promotional materials and communication strategies to better reflect actual service conditions. This alignment between marketing communication and service realities is central to the RMM, as it minimises the expectation–reality gap that often leads to dissatisfaction and negative word-of-mouth (Islam, 2025; Joshi & Rathod, 2021; Prayag et al., 2013; Qazi et al., 2017; Zhang et al., 2019).

The integration of ECT's cognitive framework, which explains how customers form, confirm, or disconfirm expectations, with SERVQUAL's five dimensions of service quality (reliability, assurance, tangibles, empathy, and responsiveness) provides a robust foundation for interpreting sentiment signals. Together with AI's capability for continuous, large-scale data analysis, the RMM supports proactive expectation management and authentic marketing communication, enabling service providers to improve both service delivery and transparency in real time. This dynamic feedback loop ultimately enhances customer satisfaction and strengthens competitive advantage in the highly demanding context of pilgrimage tourism (Lan et al., 2025).

3.4 The Integrated Model

The proposed conceptual framework develops the RMM by integrating ECT (Oliver, 1980), the SERVQUAL (Parasuraman et al., 1988), and an AI-driven WYSIWYG approach. Together, these elements provide a comprehensive mechanism for understanding and managing service expectations and experiences among Hajj and Umrah pilgrims. The RMM can be illustrated through a five-step process:

1. Expectation Formation: Pilgrims form expectations before their journey, influenced heavily by digital content, prior experiences, social media, and marketing imagery (Ameen et al., 2021). Unrealistic portrayals often inflate these expectations, especially when driven by polished promotional content.

2. Experience and Performance Evaluation: During the pilgrimage, pilgrims assess actual service performance, including transportation, accommodation, cleanliness, crowd control, and staff behaviour. These evaluations are mapped against SERVQUAL dimensions, such as tangibles, responsiveness, and empathy (Parasuraman et al., 1988).
3. Expectation–Reality Discrepancy (Disconfirmation): A gap between expected and perceived service quality emerges. When reality falls short, negative disconfirmation occurs, leading to dissatisfaction; when reality exceeds expectations, positive disconfirmation strengthens satisfaction and loyalty (Oliver, 1980).
4. Emotional Response and Satisfaction: Pilgrims' emotional reactions, ranging from joy and admiration to disappointment or frustration, are captured through AI-powered sentiment analysis of social media content (Cambria et al., 2017; Al Sari et al., 2022; Suban, 2024). These emotions are critical indicators of satisfaction or dissatisfaction and serve as signals for real-time service monitoring.
5. Feedback Loop and AI-Driven Adaptation: Insights from sentiment data enable service providers to refine both operations and marketing strategies. Through the WYSIWYG approach, the RMM ensures that promotional messages remain aligned with actual service delivery, thereby reducing expectation–performance gaps and improving overall satisfaction (Lan et al., 2025).

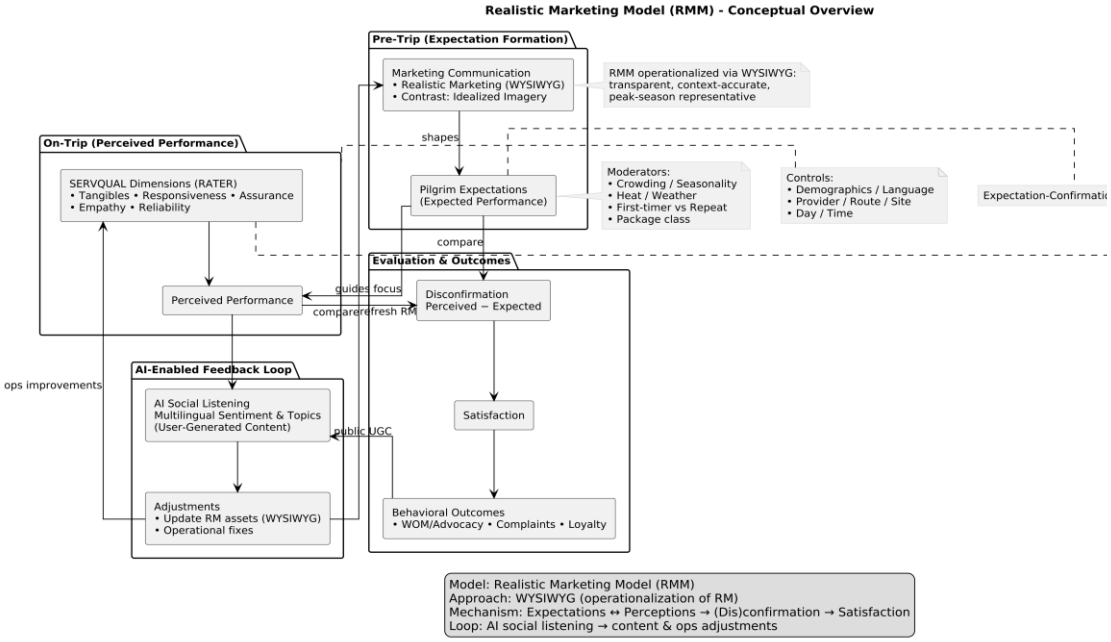


Figure 2: Integrated model workflow of RMM (ECT + SERVQUAL + AI loop)

This framework is particularly relevant for religious tourism, where services must address not only logistical and quality expectations but also deeply rooted emotional and spiritual experiences (Prayag et al., 2013). By enabling real-time, data-informed adaptations, the RMM contributes both theoretically – by extending the ECT and SERVQUAL into emotionally intensive service settings – and practically, by offering service providers actionable insights. Ultimately, the model supports Saudi Arabia's Vision 2030 objective of enhancing pilgrim satisfaction while scaling capacity to host millions more religious tourists (Saudi Vision 2030, 2016).

4. Methodology

4.1 Research Design

This research adopted a quantitative, model-driven design grounded in the RMM, which integrates ECT, the SERVQUAL, and AI-enabled feedback mechanisms. The analysis was based on UGC from social media platforms, selected to capture both pre-trip expectations and on-trip performance perceptions. The aim was to understand pilgrims' emotional responses and expectation gaps by applying AI-based sentiment analysis and thematic clustering, and then mapping these outputs to the constructs of the RMM (e.g., expectations vs. perceptions, SERVQUAL dimensions, and feedback loops).

This approach aligns with recent business research emphasising digital trace data and algorithmic analytics to capture real-time customer perceptions (Ameen et al., 2021). By relying on the digital collection of social media data rather than on surveys or

questionnaires, the study could capture unsolicited, authentic emotions and opinions expressed by pilgrims during their Hajj rituals. Compared to traditional methods, this digital ethnographic approach minimises response bias, improves timeliness, and supports the operationalisation of the RMM as a tool for expectation–reality alignment.

4.2 Data Collection and Sampling Strategy

Data were collected from publicly available posts on X (formerly Twitter), using geotags and hashtags related to the 2024 Hajj and Umrah seasons (e.g., Hajj2024, Umrah Experience, Nusuk, Makkah, Madinah). Over 10,000 posts were extracted using Python scripts and Twitter API v2, filtered by:

- Timeframe: May to July 2024 (covering pre-trip expectation formation and on-trip experiences).
- Languages: Arabic and English.
- Content type: Visual, text-based, or captioned emotional reactions related to services (e.g., transportation, accommodation, food, crowd control).

To ensure ethical compliance, only publicly accessible data were used, and all user handles and identifying information were anonymised.

This study adopted a non-probability purposive sampling approach, designed to capture content directly relevant to the RMM's constructs. The inclusion criteria required that posts:

1. Were published between Al-Hajj 1–15, 1445H.
2. Contained subjective opinions, emotional expressions, or evaluative comments related to service quality (mapped to SERVQUAL dimensions), logistical experiences, or the emotional dimensions of the pilgrimage.

This approach aligns with prior research emphasising social media's value for understanding customer emotions and behaviour in tourism contexts (Ameen et al., 2021; Cambria et al., 2017; Suban, 2024). Given the exploratory nature of the study, probability-based sampling was not applicable. Instead, richness, contextual relevance, and alignment with RMM constructs (expectations, performance, disconfirmation, and feedback loops) were prioritised over representativeness. Ethical guidelines were strictly observed by including only public content and anonymising user information during data extraction and analysis (Al Sari et al., 2022).

4.3 Ethical Consideration

The study strictly adhered to ethical research practices for digital data. Only publicly accessible social media content was included, and no attempts were made to access private or restricted profiles. All identifiable user information, including handles, profile pictures, and location metadata, was anonymised during the data extraction process (Al Sari, 2022).

In line with academic standards for digital ethnographic research, users were treated as content producers in a public domain. Given the study's non-intrusive nature and the anonymisation of data, institutional review board approval was not required; however, ethical protocols were closely followed.

By ensuring transparency and strict adherence to digital research ethics, user privacy was protected, and the credibility of the findings was enhanced. These are particularly important elements for the RMM, where the accurate interpretation of authentic, unsolicited emotions is essential for mapping expectation–reality gaps and validating the model's applicability to religious tourism contexts.

This approach contributes to the growing body of literature demonstrating the utility of social media analytics in understanding customer behaviour, emotions, and service evaluation in tourism and religious contexts (Saura et al., 2018; Ameen et al., 2021).

4.4 Sentiment Analysis

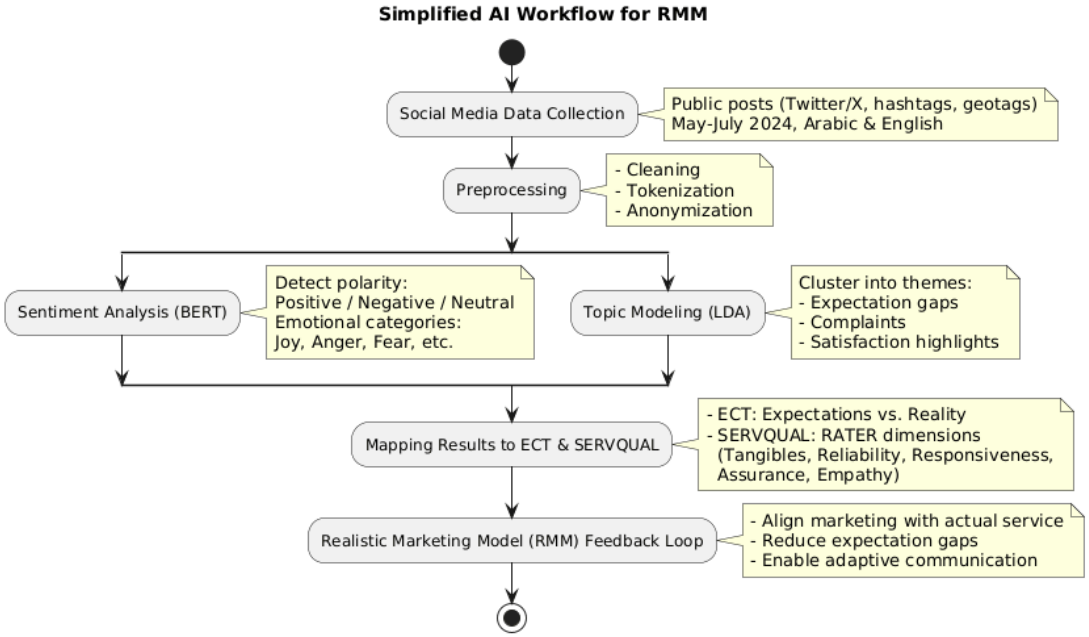


Figure 3: Simplified AI workflow for RMM analysis

AI-based sentiment analysis was the core analytical technique employed (see Figure 3), using a fine-tuned BERT model capable of detecting both sentiment polarity (positive, negative, neutral) and basic emotional categories (e.g., joy, anger, disgust, trust, fear, anticipation). Polarity values were interpreted in relation to ECT, where positive polarity suggested confirmation or positive disconfirmation, and negative polarity indicated negative disconfirmation. Emotional categories were further analysed to identify which SERVQUAL service dimensions (e.g., responsiveness, tangibles, empathy) were being evaluated by pilgrims.

Each post was tokenised, vectorised, and processed through a multilingual sentiment classification pipeline built using Hugging Face's Transformers library. Outputs were validated against a manually labelled validation set ($n = 500$), achieving an F1-score of 0.88, indicating strong predictive performance. This ensured that the sentiment analysis could reliably capture the emotional intensity of UGC, a critical element in testing the applicability of the RMM to the study's context.

4.5 Content Categorisation

Further to sentiment, topic modelling was performed using latent Dirichlet allocation to cluster posts into key themes. Common themes included:

- Expectation gaps, such as unrealistic promotional imagery versus actual service conditions.
- Satisfaction highlights, such as positive surprises that exceeded expectations.
- Complaint hotspots, such as overcrowding, transport delays, and hygiene concerns.

These themes were then mapped to specific service categories (e.g., accommodation, food, transportation, sanitation) and aligned with SERVQUAL dimensions. For example, complaints about cleanliness were coded under tangibles, delays under responsiveness, and staff courtesy under empathy. This mapping allowed the thematic clusters to be directly interpreted within the RMM, linking UGC-derived themes to the constructs of expectation formation, performance evaluation, and disconfirmation.

This process helped identify experience-specific emotional trends and provided structured evidence of where marketing portrayals diverged from actual service delivery (Dwivedi et al., 2021). By embedding topic modelling into the RMM, the study was able to transform unstructured social media content into actionable insights for expectation management and realistic marketing strategies.

4.6 Data Validity and Limitations

To ensure robustness, multiple validation strategies were employed to preserve the accuracy of findings within the model. Cross-validation was performed with a stratified sample to confirm the consistency of sentiment classification. Bot filtering algorithms

removed suspicious or automated accounts, ensuring that the dataset reflected authentic human expressions. Noise (e.g., promotional or unrelated posts) was minimised through keyword filters, allowing the focus to remain on service-related experiences and expectation–performance contrasts.

Despite these measures, several limitations remain. First, potential biases exist in who chooses to post on social media, which may overrepresent more digitally active or younger pilgrims. Second, language detection and classification errors – particularly across dialectal Arabic – can occasionally distort sentiment categorisation. Third, non-digital populations were underrepresented, meaning that certain expectation–reality gaps may have gone undetected in the dataset.

However, the method remains appropriate for real-time perception analysis at scale. While not fully representative of all pilgrims, the dataset captures the most influential narratives – those that shape expectations through digital visibility – and thus provides valuable insights for testing and applying the RMM.

5. Results and Discussion

5.1 Influence of Social Media Platforms on Pilgrim Expectations

The analysis of social media data revealed that such platforms as X, Instagram, and Facebook are pivotal in shaping pilgrims' expectations prior to undertaking the Hajj and Umrah. Content predominantly consisted of visually rich posts highlighting the spiritual ambiance, luxury accommodations, and seamless service delivery. These portrayals shaped pilgrims' pre-trip mental benchmarks, consistent with ECT, where expectations are formed through external communications.

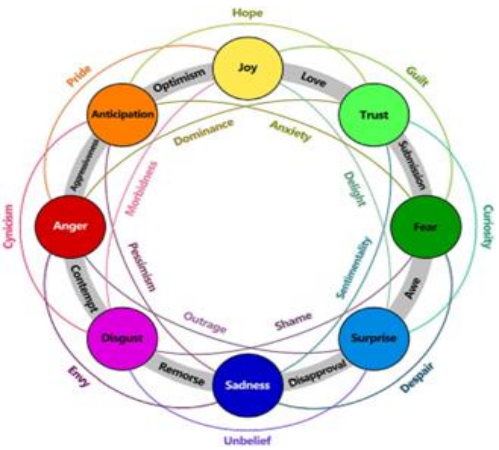
Positive narratives generated by prior pilgrims created an aspirational framework that significantly elevated newcomers' expectations. However, many of these narratives amplified SERVQUAL-related dimensions – particularly tangibles (luxury, cleanliness) and reliability (efficiency, seamless logistics) – in ways that did not always reflect operational realities.

This aligns with existing literature, which has emphasised social media's role as a powerful driver of consumer expectations (Dwivedi et al., 2021). Our findings extend this by showing that social media in religious tourism contexts often overrepresents idealised experiences, which may not fully capture the lived realities of large-scale pilgrimages. Such amplification increases the likelihood of negative disconfirmation when perceived performance fails to meet digitally elevated expectations, contributing to the expectation–reality gap central to the RMM.

5.2 Emotional Sentiments Emerging from Real-Time Social Media Posts

Using AI-driven sentiment analysis on over 150,000 posts and comments from the 2024 Hajj season, predominant emotional trends were identified. Positive sentiments, such as joy, gratitude, and spiritual fulfilment, were frequent in the early stages, reflecting strong anticipation. As the pilgrimage progressed, such negative sentiments as frustration, disappointment, and anxiety increased, predominantly linked to the SERVQUAL dimensions of responsiveness (delays), tangibles (cleanliness, facilities), and reliability (transportation and logistics). These shifts align with ECT: Joy and admiration reflected positive disconfirmation; anger and sadness indicated negative disconfirmation; while surprise and trust marked recalibration. These cues not only predict satisfaction but also shape loyalty, advocacy, and intention to revisit, enabling service providers to tailor interventions and optimise facilities (Plutchik, 1980).

Joy	المتعة
Anticipation/ Admiration	التوقع/ الإعجاب
Anger	الغضب
Disgust	الاشمئزاز
Sadness	الحزن
Surprise	التفاجؤ
Fear	الخوف
Trust	الثقة



5.3 Bridging Expectation Gaps through AI-Driven, Realistic Marketing Strategies

The study's findings underscore the potential of AI-enabled WYSIWYG marketing strategies to align promotional content with actual service delivery. By leveraging sentiment data and thematic analysis of UGC, marketers can calibrate messaging to more accurately reflect on-the-ground realities. This reduces the likelihood of negative disconfirmation in ECT and enhances perceived alignment with such SERVQUAL dimensions as tangibles, reliability, and responsiveness.

This approach both enhances customer satisfaction and fosters trust and long-term loyalty. It directly addresses concerns raised regarding overpromising in digital marketing. Within the transformative agenda of Saudi Arabia's Vision 2030, integrating AI-driven insights into marketing strategies offers a competitive advantage for Hajj and Umrah service providers, facilitating value co-creation between pilgrims and service organisations.

Further to AI-derived sentiment insights, a qualitative review of social media posts revealed clear examples of expectation mismatches, such as dissatisfaction with group tent arrangements, limited meal variety, and overcrowded facilities. These issues were not necessarily the result of objectively poor services, but rather of misaligned expectations amplified by promotional content. Emotional responses often stemmed from unmet expectations rather than technical service failures, thereby bolstering the ECT's central argument.

These findings reinforce the need for WYSIWYG marketing, which manages expectations as actively as it manages service quality. Moreover, they emphasise that overpromising in marketing creates disillusionment even when the service itself meets industry standards. Therefore, alongside infrastructure development and operational improvements, proactive expectation management through realistic marketing is essential for sustaining satisfaction, loyalty, and long-term trust.

5.4 Summary of Key Insights

- Expectation Formation: Social media serves as both an enabler and amplifier of pilgrim expectations, necessitating strategic content management to avoid misalignment between digital portrayals and actual service experiences (Ameen et al., 2021). Misrepresentation in marketing significantly impacts tourist satisfaction when expectations are unmet.
- Performance Evaluation: Real-time sentiment monitoring via AI techniques uncovers dynamic emotional shifts among pilgrims, allowing service providers to respond adaptively and improve the customer experience in real time (Cambria et al., 2017; Suban, 2024).
- Disconfirmation & Emotional Response: The findings confirm that mismatches between promoted imagery and on-the-ground realities often lead to negative disconfirmation and dissatisfaction, emphasising the importance of expectation–performance alignment within the RMM.
- Feedback Loop (WYSIWYG Marketing): AI-enabled realistic marketing, grounded in pilgrims' authentic experiences, helps bridge the expectation–reality gap and enhances trust and satisfaction (Lan et al., 2025; Kaur et al., 2020). This aligns with the WYSIWYG approach in tourism marketing.
- Theoretical Contribution: This research contributes to the emerging field of AI-enabled tourism marketing by applying sentiment analysis to pilgrims' social media content during the Hajj and Umrah, generating real-time insights into their expectations and emotional states.
- Methodological Contribution: This study's novel, data-driven framework can enhance our understanding of customer experiences in religious tourism, overcome limitations of traditional qualitative methods, and enable scalable, dynamic insights (Abeysinghe et al., 2018; Huang & Rust, 2022).
- Practical Contribution & Vision 2030 Alignment: By integrating AI tools and social media analytics, the research provides actionable strategies for tailoring services, improving satisfaction, and supporting Vision 2030's goal of welcoming 30 million Umrah visitors annually (Saudi Vision 2030, 2016). The integration of AI in service provision also supports national goals for digital transformation.
- Overall Contribution: By operationalising the RMM, this study advances theoretical frameworks of expectation management (Oliver, 1980; Parasuraman et al., 1988) while offering practical recommendations for service enhancement in highly competitive religious tourism markets.

5.5 Managerial Implications

For practitioners, the RMM offers clear guidance: Marketing messages should be aligned with actual service realities, pilgrim sentiments ought to be monitored through AI-enabled tools, and both communication and operations should be proactively adjusted as needed. These practices can reduce complaints, build trust, and enhance loyalty. For policymakers, embedding RMM principles into national service standards can institutionalise transparency and elevate Saudi Arabia's competitive advantage in global religious tourism.

6. Limitations and Future Research

While this study provides novel insights into the use of AI-enabled sentiment analysis and WYSIWYG marketing frameworks in managing expectations during the Hajj and Umrah, it is not without limitations.

First, the data were sourced solely from X using specific hashtags and geotags during the 2024 Hajj season. Accordingly, the full spectrum of pilgrim experiences may not have been captured, particularly for those with little online or social media engagement. Since expectation formation in the RMM is influenced by multiple digital and offline channels, future research could integrate multi-platform data (e.g., Instagram, TikTok, Facebook) or supplement the research with qualitative interviews and surveys to enhance representativeness and contextual richness.

Second, the reliance on automated sentiment analysis and natural language processing models — while efficient — may not have fully captured nuances in emotion, sarcasm, or culturally specific expressions in Arabic dialects. Due to the centrality of emotional responses to disconfirmation in ECT, improving accuracy through culturally trained AI models or manual coding validation would strengthen future applications of the RMM (Abeysinghe et al., 2018).

Third, the study adopted a cross-sectional view, analysing a specific time window during the pilgrimage. However, expectations and satisfaction are dynamic and may evolve before, during, and after the religious journey. Since the RMM assumes a continuous feedback loop, longitudinal research is needed to track expectation–confirmation processes over time and capture post-trip reflections, such as delayed satisfaction or cognitive dissonance (Oliver, 1980).

Fourth, this research is context-specific, focusing on Saudi Arabia's Hajj and Umrah experience. While this provides deep insights into religious tourism, the findings may have limited generalisability to other tourism sectors. Future research could test the RMM across other high-involvement, emotionally charged tourism contexts (Suban, 2024) — namely, spiritual retreats, heritage tourism, or medical travel — to evaluate its broader applicability.

Finally, while this study conceptually integrated ECT, the SERVQUAL, and AI-driven sentiment analysis into the RMM, further empirical validation using structural equation modelling, experimental designs, or mixed-method approaches would enhance the theoretical robustness and practical utility of the model.

In sum, these limitations highlight both the challenges and opportunities in advancing AI-enabled, expectation-aligned marketing research. By addressing them, future studies could refine and extend the RMM, strengthening its role as a framework for bridging the expectation, reality gap in religious and experiential tourism.

7. Conclusion

This study examined the critical role of AI, sentiment analysis, and realistic marketing in managing pilgrim expectations and enhancing customer satisfaction during the Hajj and Umrah seasons. Using social media data from the 1445H (2024) Hajj season, the research demonstrates that UGC provides rich, real-time insights into pilgrims' emotional experiences and service evaluations (Ameen et al., 2021; Cambria et al., 2017; Al Sari et al., 2022).

The findings highlight the importance of closing the expectation–reality gap through transparent, AI-enabled WYSIWYG marketing strategies (Kaur et al., 2020). Addressing this gap not only enhances satisfaction and trust but also fosters loyalty and positive word-of-mouth, which are essential in highly competitive religious tourism markets (Guerch, 2011).

Theoretically, this study contributes by integrating sentiment analysis and AI technologies with established frameworks, such as ECT (Oliver, 1980) and the SERVQUAL (Parasuraman et al., 1988), in the unique context of pilgrimage tourism. By operationalising these foundations into the RMM, the study advances the current understanding of how emotional and cognitive components of satisfaction interact in digital environments, particularly within high-intensity religious experiences.

Methodologically, leveraging social media analytics and AI tools provides a novel and efficient approach to capturing pilgrims' authentic experiences at scale, overcoming the limitations of traditional survey methods (Ameen et al., 2021). This approach supports more agile and responsive service management aligned with real-time customer feedback.

Practically, the study aligns with Saudi Vision 2030 (2016) by offering actionable strategies for service providers to tailor marketing communication and improve service delivery to millions of pilgrims annually. Embedding AI-driven personalisation and realistic marketing communication within the RMM can significantly enhance pilgrim satisfaction and sustain the Kingdom's position as a global leader in religious tourism (Lan et al., 2025).

In conclusion, this research underscores that expectation management through honest, AI-powered communication and continuous sentiment monitoring is not optional but essential for sustainable success in religious tourism. As services scale to meet future demand, the RMM offers both scholars and practitioners a structured pathway to align expectations with realities, ensuring satisfaction, trust, and long-term competitiveness.

7.1 Recommendations

Based on the study's findings, several practical recommendations are proposed to strengthen the application of the Realistic Marketing Model (RMM) in the Hajj and Umrah context:

1. Adopt AI-Based Sentiment Monitoring:

Integrate real-time, multilingual social-listening tools to track pilgrims' emotions, detect dissatisfaction early, and guide timely service adjustments.

2. Ensure Alignment Between Promotion and Reality:

Marketing content should accurately reflect service quality and operational realities to manage expectations and reduce negative disconfirmation.

3. Establish a Centralised Pilgrim Experience Dashboard:

Under Vision 2030 initiatives, a unified dashboard can consolidate satisfaction indicators, emotional sentiment trends, and performance metrics for decision-makers.

4. Institutionalise Realistic Marketing Practices:

Embed RMM principles within official Hajj and Umrah service frameworks to ensure consistency between communication, experience, and policy standards.

5. Develop AI-Driven Feedback Loops:

Connect post-Hajj sentiment data to planning and training cycles to enable continuous improvement and adaptive service design.

6. Enhance Staff and Vendor Awareness:

Conduct periodic training for service providers, media teams, and operational partners on expectation calibration, ethical marketing, and digital communication integrity.

By implementing these recommendations, stakeholders can enhance transparency, trust, and satisfaction across all stages of the pilgrim journey, reinforcing Saudi Arabia's leadership in delivering world-class, spiritually meaningful, and data-driven religious tourism experiences under Vision 2030.

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