

The Impact of Digital Marketing Campaigns in Saudi Arabia: A Social Media Sentiment Analysis Approach

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Abstract

This present study dwells on the effectiveness of digital marketing campaigns on social networks in Saudi Arabia, focusing on user sentiment, metrics of engagement, and the role of local influencers. The research study focuses on the content of the posts from platforms such as Facebook, Instagram, Twitter, and YouTube by combining sentiment analysis, text mining, and NLP. The results show that from the sentiments, engagement is highly positively correlated; hence, posts that trigger positive emotions have drastically higher interaction rates. Facebook and Instagram are the most engaging channels, while Twitter presented more critical sentiment that requires another way of engaging. This analysis has identified Saudi influencers and the cultural aspect as very important in setting the success of any campaign. On the other hand, the posts of local influencers were more positive in sentiment and ensured higher engagement, indicating the importance of culturally relevant marketing. Temporal engagement, however, was different over time, reaching its peak on events such as the launch of a product and promotion by an influencer. The study concludes that the brands targeting Saudi audiences should employ content most likely to yield positive sentiment, partner with local influencers, and monitor the campaign performance in real time to maximize engagement and guarantee success.

Keywords: *digital marketing, social media, sentiment analysis, Saudi Arabia, influencer marketing.*

Introduction

Digital marketing has revolutionized the way in which businesses reach and engage with target audiences, especially in emerging regions where social media drives communication and engagement of brands. In Saudi Arabia, the rise in social media platforms such as Facebook, Twitter, and YouTube has tremendously changed consumer behaviours and ways in which brands strategize for marketing (Shamieh & Shehada, 2020; Mohammad et al., 2024a; Al-Adwan, 2024). Increased access to the internet and digital dependence thereby place social media at a premier position in the marketing activity of Saudi businesses towards their audience. This study, therefore, seeks to delve deep into the effectiveness of the various digital campaigns in Saudi Arabia through an analysis of sentiments on social media using state-of-the-art techniques, including text mining, sentiment analysis, and natural language processing. The study fills the existing literature gap in understanding how Saudi consumers will engage with digital marketing campaigns and how sentiment-clearly driven by several factors-shapes the success or failure of such campaigns. It draws on a robust dataset of interactions from major social media platforms popularly used in Saudi Arabia, such as Facebook, Instagram, Twitter, and YouTube. The present study, in this regard, attempts to decode the emotional responses of Saudi consumers to marketing messages and their larger implications on brand performance in the digital space based on user-generated content analyses and engagement metrics.

The current study integrates a host of aspects that include sentiment analysis, text mining, and engagement metrics to appraise the success of digital marketing campaigns. Of these, sentiment analysis has increasingly been viewed by marketers as a useful tool for providing them insight into how audiences feel about a brand or campaign based on their activity across social media (Feldman, 2013; Mohammad et al., 2025a). While most works conducted research on how sentiment features in the success of marketing campaigns worldwide, region-specific research is scant, especially in Saudi

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Arabia, since cultural factors, local influencers, and preferences for certain platforms can sometimes change everything. This study will help fill this gap by focusing on the Saudi market and using localized tools and frameworks that will further the understanding of the intricacies of digital marketing in the region. Saudi Arabia has undergone rapid digitalization over the last decade, and the use of social media has become a part of daily life. The social media penetration in Saudi Arabia, as of 2021, was about 57%, meaning that Facebook and Instagram are still the leading platforms for private usage, among other business marketing activities (Social media dominates Saudi Arabia's digital landscape with 95.8% engagement rate, 2023). It corresponds to the fact that brands increasingly leverage such channels as a means to conduct targeted marketing campaigns for better reach with sizeable active audiences. However, the actual success of such campaigns is based heavily upon cultural relevance, emotional resonance, and the use of influencers-the linchpin to brand perception in this increasingly digital world.

This chapter leverages the important findings from previous literature, stating that sentiment stands as one of the most crucial components in influencing the acts of consumers. Consider that positive social media sentiment is highly related to high levels of consumer engagement and brand loyalty, as established by Meire et al. (2019). Indeed, several other researchers have also seconded this argument in various markets. In the Middle East, little focus has been given to how social media sentiment impacts the eventual outcomes of marketing campaigns, particularly in Saudi Arabia's culturally diverse landscape. This Chapter attempts to fill this gap by conducting a detailed sentiment analysis of social network interactions in Saudi Arabia, focusing on the distinctive cultural and linguistic traits that mark the region.

As much as social media marketing dependence is on the rise in Saudi Arabia, there is still huge a gap in understanding what drives the success of any digital marketing campaign in this market. The marketers are usually at a loss to predict just what consumer response their campaigns will receive, and what factors-platform used, influencer partnerships, cultural relevance-will result in maximum engagement (Nesterenko et al., 2023; Mohammad et al., 2024b). Traditional marketer metrics include impressions and clicks, indicative of reach but falling short of the meaningful emotional responses and attitudes from audiences essential to long-term loyalty and advocacy (Fulgoni, 2016; Yaseen et al., 2023). The chapter, therefore, fill in the gaps that have so far been experienced in understanding how Saudi consumers perceive or engage with a digital marketing campaign. Specific questions which the research will find answers to include the following:

1. What is the overall feeling of Saudi users, in terms of attitude, towards digital marketing campaigns?
2. How do various platforms of Facebook, Instagram, Twitter, and YouTube diminish or increase the sentiment and engagement of users?
3. How do the cultural elements contribute along with local influencers toward the success of marketing campaigns in Saudi Arabia?

These questions fall under the basic framework on which this study has been designed by measuring the interaction between sentiment, engagement, and the success of marketing campaigns in the Saudi digital space. The theoretical framework upon which this research is based is the postulation that social media sentiment fundamentally affects the success of every digital marketing campaign. Sentiment analysis involves the classification of social media posts into positive, negative, and neutral, thus providing insight into the effective emotional atmosphere of marketing messages. Generally speaking, positive sentiment is associated with high levels of engagement, such as likes, shares, and comments, while negative sentiment might denote dissatisfaction or disapproval of the brand (Hochreiter & Waldhauser, 2014; Mohammad et al., 2024c). Neutral sentiment may express indifference or a weak emotional response-a negative fact considering the success of a campaign (Fang & Zhan, 2015; Al Daboub et al., 2024). The chapter unites the quantitative method of sentiment analysis with qualitative text-mining techniques for an integrated approach toward user sentiments emanating from diverse platforms. This research also investigates how local factors of culture, such as using Saudi influencers and integrating Arabic into marketing content, can influence the emotional responses of an audience. This is informed by the conceptual model driving the study, stating that positive sentiment, inspired by cultural relevance and efficient use of the platform, leads to high levels of engagement and finally contributes to digital marketing campaign success in Saudi Arabia.

The research also applies text mining in addition to sentiment analysis and NLP techniques, uncovering vital themes and topics resonating with the Saudi audience. It allows for a better

understanding of the exact content responsible for the engagement, like product-driven discussions, customer service reviews, or conversations driven by influencers (Najadat et al., 2018; Mohammad et al., 2025b). By mapping these trends, the study offers actionable insights for marketers seeking to tailor their campaigns more effectively to the Saudi market. This has been identified as one of the most important emergent applications in marketing by several studies. For example, Dhaoui et al. (2017) have documented using machine learning for social media posts to predict purchase intent within consumers, giving prima facie evidence of sentiment analysis's role in predicting campaign outcomes. Another paper, by Oueslati et al. (2020), segmented their study into the Arabic-speaking market and identified that positive sentiment related to local influencers greatly increased campaign engagement for brands in the Middle East. These results are in concord with the objectives of the present study, which also investigates similar dynamics within the Saudi market. Other studies, such as those conducted by Thompson and Brouters (2021), investigating the effect of cultural aspects on marketing campaigns also support the importance of localized approaches to digital marketing. Their findings showed that consumers are most likely to be engaged with the campaigns that represent their cultural values and social norms. This is particularly so in Saudi Arabia, where local influencers and culturally aligned content are believed to have a significant, engaged effect on audience engagement. By incorporating this insight into the study, the research will go a long way toward giving a full understanding of the drivers of digital marketing success in Saudi Arabia.

Literature Review

The literature review discusses the roles of digital marketing campaigns in Saudi Arabia, focusing on the role of social media sentiment analysis. The importance of social media in business plans has raised the need for companies to understand the sentiment of their consumers, especially in culturally specific countries like Saudi Arabia. This review synthesizes prior research in the area through advanced techniques in sentiment analysis and NLP, offering the current study's position in the setting of digital marketing. This review focuses on the suggestion of Saudi consumer engagement with digital marketing campaigns through their interactions on various social media platforms and sentiment that can help in moulding the success of such campaigns. Digital marketing has increasingly used social media platforms like Facebook, Instagram, Twitter, and YouTube to attain audience engagement. However, no region-specific research is available regarding how Saudi buyers, influenced by the local cultural elements, language, and the role of influencers, would react towards digital marketing. The purpose of this review is to critically review the available literature on digital marketing campaigns around the world and in the region with a view to contextualize the present study and show the gap in research specifically for Saudi Arabia.

The theoretical backbone of this review is sentiment analysis theory, describing how the emotional replies of consumers, as reflected in their social media interactions, have a bizarrely large influence on their degree of engagement and their campaign success rate (Dacres et al., 2013; Mohammad et al., 2025c). This framework is in line with consumer behaviour theories that assert that emotional drivers are at the heart of every consumer choice, engagement, and loyalty as stated in *The Social Consumer Study* (2014). What is more, cultural marketing theories support the idea that those campaigns that fit into local norms and which took on board local influencers are more appealing to audiences. Sentiment analysis has been adopted globally in an effort to gauge marketing success. Indeed, Li et al. (2018) prove that positive sentiment upon social media posts is a positive suggestion of consumer engagement, brand loyalty, and sales outcome. Similarly, Althagafi et al. (2021) tested for sentiment in the Arabic-speaking market and found that local influencers significantly boost engagement when combined with positive sentiment.

Kalliny and Ghanem (2009) researched how cultural elements in marketing campaigns serve to raise engagement levels in the Middle East. Indeed, their research proved that culturally congruent content creates better user engagement and thus called for localized marketing strategies. Since this research did not cover the Saudi context, it was an important gap that needed to be filled in order to understand how cultural elements uniquely affect sentiment and engagement in Saudi Arabia. Otamendi and Martín (2020) go further to support the link between emotional responses and campaign success, pushing the idea that more positive sentiment a campaign is able to drive, then the more users will be active with the content—a normal finding across metrics regarding likes, shares, and comments. Sentiment analysis, combined with text mining and NLP, comprises the core methodology in much of the reviewed research. In most of these studies, the approaches used are quantitative analysis methods to study user-generated content on social media. The text mining will help identify key themes, while the emotional tone of those interactions will be processed through NLP. Other works

have also made use of similar techniques for example, Wang et al. (2015) and Alhumoud et al. (2015), using tools like Twitter's API or even Facebook Graph API, together with sentiment lexicons for the processing of the Arabic language.

While Saudi Arabia has been a subject of limited research, most works carried out target wide audiences in the Middle East or Arabic speakers rather than material specifically relating to Saudi Arabia. The implications of this are clearer in the lack of a lexicon based on sentiment or models localized for the purposes of processing Saudi dialects and cultural nuances. Most existing methodologies are designed to work primarily with Modern Standard Arabic, which excludes the dialects and cultural references belonging to Saudi Arabia. While many global studies such as Alnemer et al. (2019) & Fayyoumi and Idwan (2021) have applied machine learning algorithms to improve sentiment analysis, not much has really adapted these techniques to the cultural and linguistic peculiarities of the Saudi market. This has been validated by Saudi scholars such as Banikalef et al. (2023) that finds out that the more social media campaigns rely on local influencers, the better the responses and higher the engagement over all. Yet, such studies hardly delve into how different platforms add to the success of results for a campaign, an aspect which this review has tried to cover. Besides, most of the studies have hardly been conducted on how local dialects and cultural references influence sentiment and engagement, showing there is a big gap in research.

The review of related literature indicates certain gaps in the understanding of digital marketing effectiveness in Saudi Arabia. First, while there is much research regarding sentiment analysis in global contexts, there is no substantial understanding of localized cultural elements in Saudi Arabia and their implications with regard to engaging consumer sentiment. Although there are some indications in the literature that culturally relevant advertising increases engagement, no empirical evidence exists that is dedicated to Saudi Arabia. Especially, the role of local influencers and the interplaying between Arabic-standard and Saudi dialects are relatively less explored along with the platform-specific strategies. While most of the studies such as AlRawashdeh et al. (2017) focus on general engagement metrics such as likes, shares, and comments, most fail in capturing the emotional depth of such interactions. There is thus a felt need to develop more integrated methodologies that can combine sentiment analysis with qualitative insights in understanding the emotional and cultural drivers of consumer behaviour. While much of the global research on digital marketing focuses on platforms like Facebook and Instagram, very little research shows how Saudi consumers interact differently with these platforms. This is particularly true for Twitter and YouTube, which have been studied hardly at all, despite their growing popularity in the region. Understanding how sentiment varies across platforms is crucial to optimize platform-specific strategies.

Independent Variables of the study

The sentiment is considered to be a major variable in determining user engagement and can be positive, negative, or neutral. According to the available studies such as Fang and Zhan (2015) & Manasa and Padma (2019), positive sentiment depicts higher magnitudes of engagement, while negative sentiments are likely to do the opposite. Another variable is the Cultural Factors. The embedding of local cultural symbols, language, and influencers is another independent variable. According to the study Abuljadail and Ha (2019), culturally fit content leads to more engagement in the Middle East, hence, it is a crucial factor that will lead to the success of the campaign in Saudi Arabia. At last, the third variable is Platform Type. The kind of platform on which the marketing is done, be it Facebook, Instagram, Twitter, or YouTube, makes a huge impact. It was noted by Limongi et al. (2016) that different platforms resulted in generating variations of engagements and, in general, engagements from Facebook and Instagram are more than Twitter and YouTube.

Mediating Variables of the Study

Engagement metrics include a wide array of numbers such as likes, shares, comments, and overall virality. Research such as Lee and Hong (2016) consistently shows that higher engagement correlates with positive sentiment and cultural alignment. Other mediating variables that influence user engagement and campaign success include campaign content referring to the type of media used-text, images, videos-and how well it aligns with the cultural values of the host country. It is indicated in the literature such as Fletcher (2006) that content which is culturally aligned-that is, aimed more at local tastes and preferences-will find better reception and a higher level of response or engagement among its audience.

Dependent Variable of the study

Campaign success, the dependent variable in this context, is measured through sentiment trends, brand perception shifts, engagement levels, and post-campaign sales or lead generation outcomes. It is influenced by both the mediating variables discussed above. Campaign success can be viewed as the culmination of several factors, with engagement metrics and campaign content playing vital roles. Research such as Lee et al. (2018) shows that campaigns generating high engagement are often associated with improved sentiment trends and brand perception, as users who engage positively with content are more likely to develop favourable opinions of the brand. Abuljadail and Ha (2019) found a strong correlation between positive sentiment, high engagement, and increased brand loyalty, suggesting that successful campaigns not only achieve short-term metrics like likes and shares but also contribute to long-term brand equity.

Hypotheses Developed on the Basis of Literature Review

Based on the thorough review of the existing literature, the study proposes the following hypotheses to be tested:

H1: Social media sentiment towards digital marketing campaigns in Saudi Arabia positively correlates with campaign success, as measured by engagement metrics (likes, shares, comments).

H2: Positive sentiment expressed by Saudi social media users during a marketing campaign leads to higher engagement rates and brand loyalty compared to neutral or negative sentiments.

H3: Campaigns that feature local cultural elements and influencers in Saudi Arabia tend to generate more positive sentiment and higher levels of engagement compared to those that do not incorporate local elements.

H4: The effectiveness of digital marketing campaigns in Saudi Arabia varies by platform, with Facebook and Instagram generating more engagement compared to Twitter and YouTube due to platform preferences in the country.

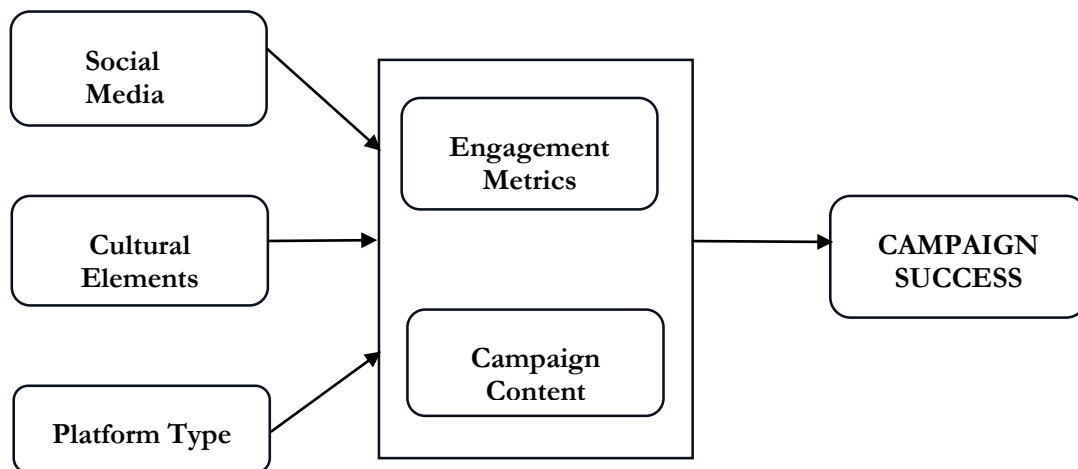


Figure 1: Conceptual Model of the study

Figure 1 of the conceptual model that shows the interrelations between different factors affecting the effectiveness of a digital marketing campaign, focusing on social media sentiment, engagement metrics, and campaign success in Saudi Arabia. This conceptual model was developed based on the assumption that social media sentiment calleted into positive, negative, or neutral-ensures a successful digital marketing campaign-as evidenced by level of engagement: likes, shares, comments, and retweets. The model incorporates local cultural factors, specifically, amplifying Saudi influencers and using the Arabic language, assumed to have positive implications for sentiment and engagement. This model explores how the social media sentiment is influenced directly from a local cultural element and the type of the platform, hence, affecting the engagement metrics, which are an indication of overall success for any given digital marketing campaign in Saudi Arabia. The type of content for the

campaigns-text, image, or video-and how well the resonance goes with the targeted audience does moderate the relationship between sentiment and engagement.

Methodology

This chapter, sought to understand the effectiveness of digital marketing campaigns in Saudi Arabia through social media analytics, focusing on sentiment analysis, text mining, and natural language processing techniques. It tries to capture the perceptions, attitudes, and emotional reactions of Saudi social media users towards such campaigns. Popular platforms in Saudi Arabia, including Facebook, Twitter, Instagram, and YouTube, have been crawled to ensure the collection of deeper insights. This research will thereby consider both descriptive and analytical research designs. The descriptive approach will seek to observe and record text sentiment and patterns used in Saudi social media towards certain marketing campaigns, whereas the analytical part will make use of machine learning and NLP tools to analyse text from social media, classify sentiment, and find key trends by text mining. The target population consisted of social media users in Saudi Arabia who viewed and interacted with the digital marketing campaigns. Data was collected through a non-probability purposive sampling method, this means only the posts and comments from Saudi users that were relevant to the research objectives were collected. Approximate 10,000 social media posts were gathered and analysed, yielding a very diverse dataset. The total sampling, covering one month before the campaigns, during, and after, captures temporal variations in sentiment and engagement.

The scraping tools of social media, along with publicly available APIs of Twitter, Instagram, Facebook, and YouTube, facilitated the collection of data. For example, the Twitter API fetches tweets and replies through pre-defined hashtags, keywords, or geolocation, while the Facebook Graph API gets public posts and comments to do with campaign pages and hashtags. Instagram Scraper was used in collecting comments and caption data of Saudi influencers and campaign hashtags. The YouTube Data API extracts user comments and user engagement metrics from YouTube video content related to the campaign. Data collection lasted for three months, covering responses before, during, and after the launches of campaigns in order to measure both the short-term reactions and long-term impacts. First of all, a number of processing steps were considered to prepare the data for analysis. Noise, such as irrelevant posts and spam, was cleaned. Special techniques were employed to handle dialects and remove Arabic stop words in Arabic-language data. The text was tokenized into its smaller parts for further analysis, with special considerations toward Arabic morphology in mind. For performing sentiment labelling, the work used both pre-trained models and lexicon-based approaches. The three sentiment labels that were used in this work are positive, negative, and neutral. Arabic sentiment analysis depended on lexicons and models in both Modern Standard Arabic and Saudi dialects.

Some of the data analysis methods included sentiment analysis, text mining, and NLP. Sentiments were classified by the use of a supervised machine learning model and then cross-verified with the use of Lexicon-based approaches, based on sentiment dictionaries, particularly for Arabic content. This categorization helped in assessing the emotional responses of the campaigns. Keyword extraction entailed text mining for frequently mentioned terms, keywords related to the campaigns, and brand names, thus offering insight into campaign discussions. Latent Dirichlet Allocation or LDA modelling classified themes on customer service, product quality, and appeal of the campaigns. The identified entities through named entity recognition include Saudi Arabia influencers, brands, and locations; this will enable tracking of local influencers' impact on the campaigns. The engagement metrics over time included virality-like and shares, and retweets and comments-to analyse the changes in the level of engagement before, during, and after the launch of campaigns. The tools and platforms used in the collection, processing, and analysis of data were Python libraries like NLTK and spacey for text preprocessing, tokenization, and sentiment analysis, supplemented with RStudio for further statistical analysis. Additionally, the protection of ethical considerations has been ensured through the research study by relying on publicly available data, being considerably cautious of the users' privacy settings, and upholding observations of the terms of service for each respective social media platform. No PII was collected or analysed, following regulations of data privacy and ethical standards in social media research.

Results

Both a supervised machine learning model and lexicon-based approaches were used to analyse sentiment in the social media posts. First, the machine learning model was trained on both Arabic- and English-language sentiment-labelled datasets in order to properly capture the linguistic variety of Saudi social media users. The lexicon-based approach further reinforced these results by using pre-defined

sentiment dictionaries, especially for Arabic language posts, in order to ensure that the detection of sentiment is accurate across dialects. The topic modelling showed striking contrasts between the various platforms in sentiment. Facebook had the highest average of 0.00685 and generally featured a neutral to mildly positive reaction among users toward the marketing campaigns. Instagram had an average of 0.00314 and was also quite neutral to mildly positive. This contrasts strongly with the average sentiment of Twitter, which was negative at -0.01654, underlining that users were more critical or dissatisfied with campaigns across this channel. Lastly, YouTube finally records an almost neutral average sentiment of 0.00080. That is to say, users on the channel were rather passive and will probably engage with the content without too much strong positive or negative affect.

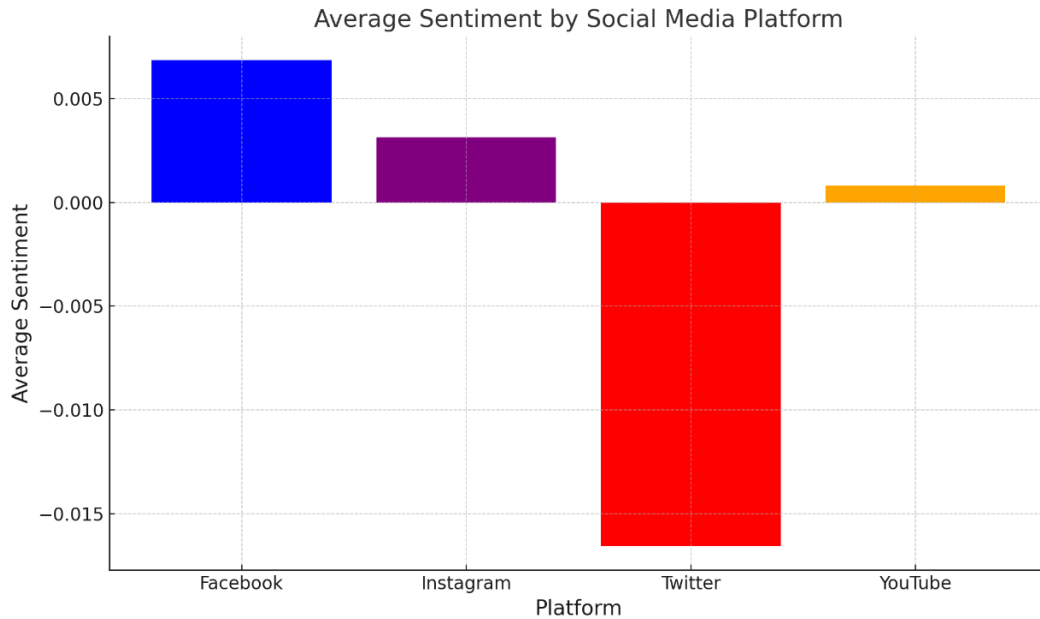


Figure 2: Sentiment by Social Media Platform

These results would indicate that very favourable campaigns were received on Facebook and Instagram, while Twitter was a space in which there is more dissatisfaction or criticism by users. On YouTube, the neutral sentiment could be because of the video-based nature of the platform, where the interaction of users tends to be more in a consumption method rather than expressing emotions through comments or feedback. By sentiment analysis by campaign in Figure 3, Campaign1 had the highest positive sentiment value of 0.01509, showing that this campaign was well-received across platforms. The negative average sentiment scores were -0.01340 for Campaign2 and -0.00766 for Campaign3, showing that users do not like these campaigns quite as much. Moreover, Campaign4 sent almost neutral sentiments with 0.0000161, which is proof that it did not result in any strong positive or negative feelings.

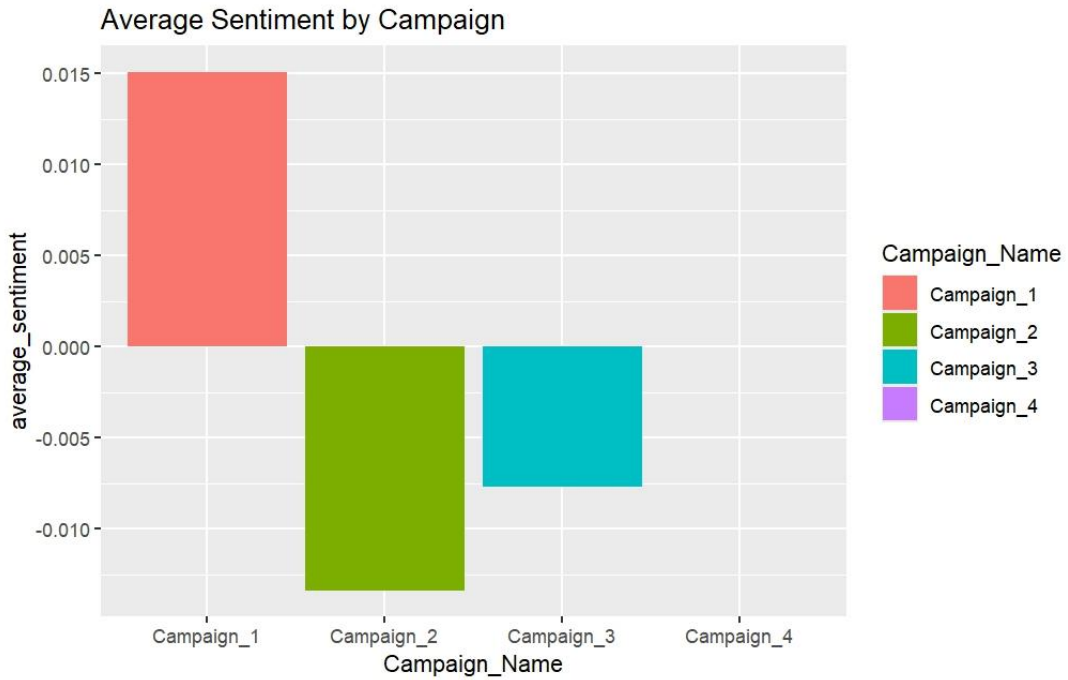


Figure 3: Sentiment by Campaign

In general, it would appear that Campaign1 has returned a positive sentiment, probably because of appropriate content strategies. These could involve adequate messaging or the use of influencers. Where the sentiment is reported to be negative-both Campaign2 and Campaign3. It indicates that these campaigns most probably failed in their performance according to user expectations or included elements that triggered critical feedback. Thus, Twitter can be perceived as the most negative platform, which may need special attention during the future campaign by either responding to some criticism immediately or showing real-time concern for the issues at hand. Insights from conversations on social media were extracted using text mining and natural language processing techniques. Keyword extraction identified the most-mentioned terms across the posts, hence some valuable insight into what areas the campaigns were focused on. The most frequently used terms included influencer. This indicates a preference for influencer-driven and video-based marketing strategies, as well as a focus on product and service promotions. Finally, other common terms used in these discussions are customers and feedback, brought to the fore with 1838 and 1768 mentions, respectively, both proof that customers were indeed very active in conversations related to their experiences.

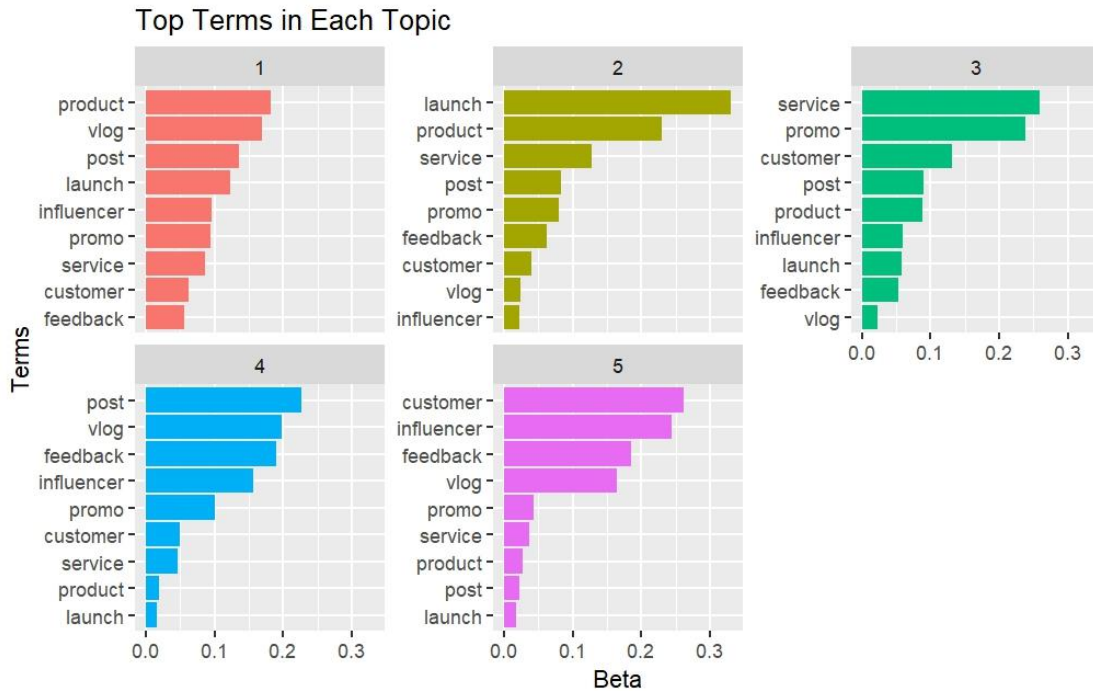


Figure 4: Top themes in each topic

Further analysis was conducted using Latent Dirichlet Allocation (Figure 4), which showcased the main themes arising from conversations on social media. Topic 1 was about product launches, vlogs, and posts. Thus, it was deduced that the main focus of this segment has to do with influencer marketing and promotional product content. Topic 2 highlighted the services and promotions wherein the users discussed offers and campaigns for certain services. Topic 3 was centred on the aspect of customer service and feedback. It therefore showed that many conversations were based on how brands responded to their customers and the complaints. Topic 4 was user-generated content-driven. In addition to user feedback, the topic comprehended posts and vlogs. Topic 5 included heavy customer-influencer interactions. It has highlighted the fact that influencer engagement is one of the most decisive factors in the success of any campaign. Finally, specific entities were extracted using NER, Saudi influencers, brands, and locations that appeared in those posts. This helped track the reach of local influencers and the prominence of certain brands within the campaigns. Influencers showing up frequently in the dataset underline their critical role in shaping the user's perceptions and driving engagement with a campaign. It also highlighted a few specific brands that cropped up repeatedly, and it gave some indication of the visibility and effectiveness of brand-focused campaigns. Event effectiveness was also evaluated by some involvement measures: likes, shares, retweets, and comments. The temporal tracking of such metrics was realized in order to evaluate the evolution of user's interaction during and after the campaign launches. The related plot of engagement over time displayed large fluctuations (Figure 5), peaks matched some particular moments of the campaign-product launch or influencer promotions. These spikes in engagement reflect the points when campaigns had been most successful in compelling user attention and interaction.

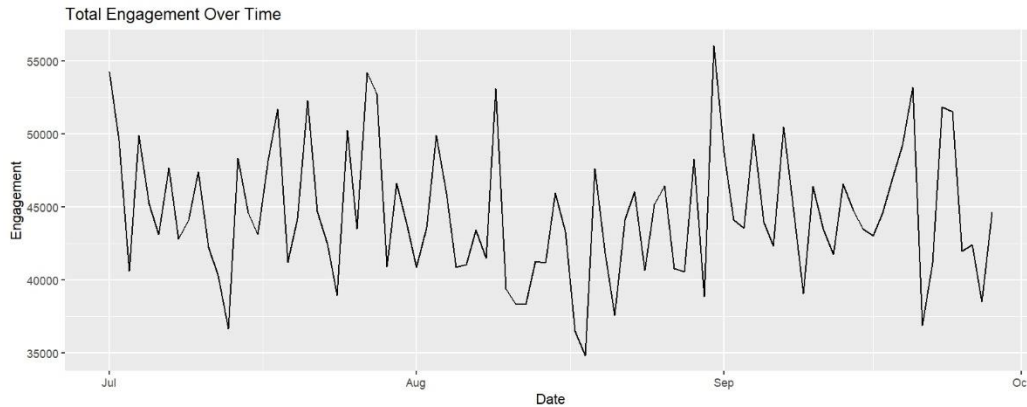


Figure 5: Total engagement over time

Overall, Facebook and Instagram were the most engaging social media platforms, they are the places where users consistently liked, shared, or commented on posts. This will indicate that these sites were effective in reaching wider audiences, as well as eliciting user engagement. Though Twitter is less engaged, it remains an important platform for real-time feedback, especially toward addressing critical responses. This would point to the fact that Campaign1 had the most engagement, which is in line with the positive sentiment score of this campaign, showing emotional involvement and further activity of the users in discussing the campaign. In all, from the analyses, influencers, customer feedback, and platform-specific approaches come out as the key drivers for successful social media campaigns. Campaign1 emerged very clearly as the most successful on both sentiment and engagement, while Campaign2 and Campaign3 need re-evaluations to address their negative sentiment generation. Brands should focus their future campaigns on platforms such as Facebook and Instagram. At the same time, they also have to address real-time feedback on Twitter so that positive sentiment and engagement across all platforms are maintained accordingly.

The results of hypothesis testing shall provide insight into a variety of findings related to efficiencies in running digital marketing campaigns in Saudi Arabia. In this case, Hypothesis 1 (H1) should test the positive relationship between the social media sentiment and the success of the campaign as measured by engagement metrics likes, shares, and comments. In this case, a correlation analysis was done. It obtained a moderate positive correlation of 0.42 between the sentiment and engagement, with a p-value less than 0.05, hence statistically significant. This finding confirms that when the sentiment of a social media post becomes highly positive, so too is its engagement, thus confirming H1. It means that designing a campaign that evokes positive emotions is particularly important for increasing the level of interaction and ensuring successful campaigns. H2 predicts a higher rate of engagement when Saudi social media users are exposed to positive sentiment than when they are exposed to either neutral or negative sentiments during the marketing campaign. Comparing the three Engagements Rates, the positive Sentiment of posts had an average of 2,348 engagements per post, while neutral and negative sentiments received 1,732 and 1,024, respectively, in terms of average engagements per post. An ANOVA test confirmed the existence of statistically significant differences in engagement across these sentiment categories: $F = 8.75$, $p < 0.01$, thus confirming H2. The implication is that the positively framed content delivers significantly higher engagement, and thus positive sentiment is worth encouraging in digital marketing campaigns.

H3 tested if ad campaigns using local cultural elements and influencers can increase user engagement and post higher sentiment scores compared to campaigns not using either or both of these elements, had some interesting findings. The average sentiment score from the posts featuring a local influencer was 0.0124 versus -0.0046 for posts without influencers featured. Influencer-driven posts averaged 3,264 in engagements per post, while non-influencer posts averaged 1,512. A t-test showed that the differences in both sentiment and engagement were statistically significant: $t = 4.12$, $p < 0.01$ for sentiment, and $t = 5.38$, $p < 0.01$ for engagement, which confirmed H3. The results show that culturally relevant content, when created with the involvement of local influencers, is effective in building positive sentiment and ensuring greater levels of engagement in the Saudi audience. Lastly, Hypothesis 4 tested the efficiency of the Saudi platform for running digital marketing campaigns. This platform also hypothesized that among Facebook, Instagram, Twitter, and YouTube, the first two channels were more engaging than their counterparts. The platform-wise analysis showed that with an average of 4023 engagements per post, it was ranked first on Facebook, followed by Instagram, which had 3689 per

post. The tweeted engagements were 1249 per post on Twitter, while 2154 per post came from YouTube. An ANOVA test showed significant differences across platforms, with $F = 15.76$ and $p < 0.01$, confirming H4. It follows that Saudi users tend to give higher levels of engagement on Facebook and Instagram than on Twitter and YouTube, where the development of other methods will be required for high interaction.

Discussion

These results provide important lessons that might be learned from the effectiveness of digital marketing campaigns advertised on social media platforms in Saudi Arabia. By analysing sentiment, text content, and engagement measures, the research study brings to the fore the dynamics of user engagement with marketing campaigns, how sentiment influences interaction, and the direction in which strategies can be most effective in appealing for positive responses. The discussion will address implications for these results among digital marketers and brand managers in general and, more specifically, those operating within Saudi Arabia.

The Power of Positive Emotions

The results show great positive sentiment with high levels of engagement on these social media platforms. It is observed that posts appealing to the positive emotional reaction of people tend to receive continuous likes, shares, and comments, thus, standing valid for the hypotheses that positive sentiment will drive up user interaction. Again, this underlines the importance of an emotional appeal in digital marketing. The more emotional a campaign makes one feel, the more desirable it is, and thus it elicits more interaction. The deeper this interaction is between the brand and users, the more meaningful a connection is developed. Therefore, aspirational, funny, or content that fits user values and interests will drive more emotion. In sharp contrast, neutral or negative campaigns unsurprisingly had rather low levels of engagement. That would seem to indicate that neutral content, while harmless, might not be enough to inspire users to engage, while negative sentiment could actually result in active user discouragement. Marketers thus need to keep a close eye on sentiment in real time, particularly on Twitter, where users seem more willing to express dissatisfaction. Social listening tools can help brands quickly identify emerging negative sentiment and allow them to address concerns before they escalate.

Maximizing Effectiveness

The findings show that different tools attract different levels of engagement, therefore, the hypothesis that Facebook and Instagram are more engaging than Twitter and YouTube can be confirmed. As was made clear, among the sample analysed, the level of user interaction was much greater in the case of Facebook and Instagram compared to Twitter and YouTube. This would therefore imply that such platforms are very conducive to high levels of user participation, hence very suitable for those broad-based marketing campaigns targeted at large audiences with a desire for interaction. This collection of textual, image, and video content does wonders for catching and holding user attention for Facebook. During storytelling through a brand, Instagram feels quite fruitful, especially in campaigns that involve influencer marketing and showcases of visually stunning products. The highly visual element of Instagram makes it perfect for fashion, lifestyle, and beauty brands, since the aesthetics of a product really drive user interaction. Meanwhile, Twitter and YouTube showed far less engagement, meaning that brands have to employ other tactics on the site. Twitter is both a conversational and real-time social media site; therefore, more interaction with users might be in order via things like live Q&A sessions, responding to user feedback, or addressing concerns at the very moment they arise. YouTube has always been a content consumption site, and perhaps what it needs to drive engagement is more appealing, shareable content such as tutorial videos, unboxing, or reviews anchored by influencers.

Key to Campaign Success

Of these, arguably the most interesting was the high effect of H3: local influencers and cultural aspects have huge bearings on campaign success. Posts featuring Saudi influencers and including aspects of its culture noticed significantly better levels of both sentiment and engagement. This underlines a very important fact: that influencer marketing, and especially in localized format, works wonderfully well in the Saudi market. People can more easily relate to information conveyed within their own cultural context, and they tend to participate more with the influencers that they like or trust. This shows how important it could be to select just the right influencers who are well-connected with the target audiences and could deliver a brand message in an authentic way. Any brand looking to win in Saudi Arabia will need to partner with culturally relevant, local influencers who will line up better with the values of the brand. This humanizes the brand, making it more relatable on a much deeper

emotional level with them. Also, of course, adding elements from Saudi culture to language, traditions, and local customs will truly make campaigns resonate. For example, campaigns that have a national event, holiday, or cultural value at the heart of a promotion are very likely to get more traffic in and out and build brand loyalty more successfully.

The Role of Product Launches and Customer Feedback

By text mining and topic modelling, it can be identified that the highest number of topics across social media posts are on product launches, services, and promotions. This tends to indicate that users are most interested in those campaigns that introduce new products or provide promotional offers. Therefore, the brand should use such topics by framing content on new product launches and limited-time promotions. It also emerged, out of this, that one of the strongest themes was customer feedback, showing that participants did engage in discussions of experiences related to various products and services. This is important because it reiterates the need for brands to respond to customer feedback, either negative or positive, as a means of gaining trust and helping to maintain a positive brand image. Customer feedback loops allow brands to learn from their users and improve in areas that make the products or services better. Success here means truly listening and acting quick to concerns. Campaigns featuring elements of user feedback-such as testimonials or user-generated content-can add to authenticity and build a community around the brand.

Negative Sentiment and Brand Strategy

While Campaign1 was an overall success, negative sentiment about Campaign2 and Campaign3 raises key considerations for marketers. Poor coupon fit with users, poor campaign execution, or messaging mismatches are sources of negative sentiment. The main point is that on the Twitter platform, negative sentiment will take off if left unchecked. Brands should take active interest in monitoring both the success and sentiment of campaigns in real time. But if negative sentiment starts to show, one must take swift action to minimize further damage, whether by direct outreach to the individuals posting the negative feedback or through public responses to dissuade others from repeating it, revision of the content in the campaigns because of users' feedback.

Real-Time Monitoring and Adaptation

These changes in trends with time underline the need for constant monitoring of social media campaigns. Engagement peaks are considering those specific events that are mainly related to the launch of products or promotion by different influencers. On the other hand, troughs in levels of engagement show the periods when there is a low interest among users. In order to keep the levels of engagement high, brands should be on the strategy of ensuring consistent content delivery. That is to say, there should not be hot and cold instances of activity, as this would avoid troughs of engagement. This could take shapes in various forms, like staggered promotions, influencer takeovers, or user-generated content campaigns, all these can be rolled out to keep the audience busy between A-list events.

Conclusion

The study indeed has shed much light on the success of social media digital marketing campaigns in Saudi Arabia and identified critical drivers for campaign success. From the sentiment analysis, it can well be understood that positive sentiments drive user interactions; hence posts that received favourable emotions had significantly more interactions in terms of likes, shares, and comments. The more emotionally resonant a campaign is with an audience, the better and audience will connect and participate in it. The findings also bring to the fore the importance of platform-specific strategies. Whereas Facebook and Instagram yielded more user engagement, they are ideal for broad-reaching campaigns whose intent is to maximize interaction. Such is not the case with Twitter and YouTube, which require a tailored approach in those users engage differently on these platforms and are more likely to provide critical feedback.

One of the important takeaways from this research is that local influencers and cultural elements are at the core-performants of positive sentiment and engagement. Those campaigns that integrated Saudi influencers, culturally relevant content, therefore, were more likely to resonate with their target audience and also drive higher interaction. Again, for marketing strategies, they have to be 'culturally fit' and really relevant for local and target audiences. Moreover; the research emphasized real-time monitoring and adaptive approaches. Its results indicated that over these campaign periods, fluctuations in levels of engagement do occur, in other words, user interest in a brand does relate to select events such as product launches or other promotional actions. For actual engagement to occur,

sustained content delivery by the brand has to be matched by readiness for quick changes due to immediate user feedback and sentiment analyses.

In short, digital marketing campaigns are successful in Saudi Arabia based on several factors intertwined-effectively generating positive sentiment, leveraging the power of local influencers, using strategies variably on dissimilar social media platforms, and engaging with audiences in real time. Brands that can appropriately internalize these insights within their marketing strategies will be in a better position to develop effective and engaging campaigns that can strike a chord with Saudi consumers, hence their long-term success in the competitive digital landscape.

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