Vol. 06, No. 2 (2024) 637-644, doi: 10.24874/PES06.02.020



Proceedings on Engineering Sciences



www.pesjournal.net

DATA-DRIVEN INSIGHTS INTO SOCIAL MEDIA'S EFFECTIVENESS IN DIGITAL COMMUNICATION

Bade Sudarshan Chakravarthy B. Uma Rani¹ K. Karunakaran Received 19.04.2023. Received in revised form 11.07.2023. Accepted 28.09.2023. UDC – 339.138

Keywords:

Digital marketing, Social Media, Strate-gies, Engagement, Metrics, Content



ABSTRACT

In the ever-evolving landscape of digital marketing, the role of social media in shaping effective communication strategies is paramount. This research paper delves into the world of data-driven insights to examine how social media channels contribute to the success of digital communication efforts. This paper focuses on exploring the multifaceted aspects of social media's impact on brand visibility, engagement, and customer interaction. The data was analyzed quantitatively using descriptive statistics while Analysis of Variance was used to establish associations between variables. The study revealed that major factors influencing the social media's effectiveness in digital communication are Content, Customer Interaction and Social Media metrics. As a result of comprehensive analysis, this research paper not only provides valuable insights into the current state of social media's effective-ness in digital communication but also offers practical recommendations for businesses looking to optimize their social media strategies. In an era where data reigns supreme, this research findings serve as a guide for harnessing the power of social media as a dynamic and influential tool in the digital communication arsenal.

© 2024 Published by Faculty of Engineering

1. INTRODUCTION

Innovative way of branding is through sharing and experiencing and is done by using digital platforms. Digital Communication involves the utilization of digital channels, data, and technology in conjunction with traditional marketing communication methods to achieve marketing objectives. Established brands tend to attract more business, and social media is a potent tool for cultivating engagement, gathering feedback, and nurturing trust with your target audience. Digital Communication encompasses the management of various aspects of a company's online presence, including websites, mobile applications, and social media profiles. It employs a range of communication techniques such as search engine marketing, content marketing, social media marketing, online advertising, email marketing, and collaborations with other websites.

Social media marketing is a highly effective subset of digital communication (Dwivedi et al., 2021). With just a click of a mouse, marketers can connect with billions of potential cus-tomers. Among social media platforms, Facebook stands out as the leader and holds paramount im-portance for both B2B and B2C marketers. In the third quarter of 2021, Facebook boasted over 3.58 billion monthly active users across its core family of products.

¹ Corresponding author: B. Uma Rani Email: <u>umarani.b@bvrithyderabad.edu.in</u>

In India, statistics indicate that ad spending in the Social Media Advertising segment is expected to reach approximately US\$1.13 billion in 2022, with an anticipated annual growth rate (CAGR 2022-2026) of 5.93%. This growth trajectory is projected to culminate in a market volume of around US\$1.42 billion by 2026. In global comparisons, the United States will contribute the most to ad spending (US\$80,670.00 million in 2022). Furthermore, mobile advertising is set to account for a significant portion, with US\$1.19 billion of total ad spending in the Social Media Advertising segment pro-jected to come from mobile sources by 2026. The number of users in the Social Media Advertising segment is forecasted to reach approximately 1,114.5 million users by 2026. Notably, Meta Platforms, Inc. is estimated to hold an 85% market share of the Social Media Advertising segment in the selected region for 2021. These statistics underscore the substantial opportunities that social and digital marketing offer to organizations, including cost savings, heightened brand awareness, and increased sales.

2. REVIEW OF LITERATURE

The shift away from traditional communication channels and the increasing dependence on digital operations have compelled businesses to adopt effective digital and social media marketing strategies to maintain and expand their market presence (Naylor et al., 2012; Schultz & Peltier, 2013). In this new landscape, organizations face significant challenges in crafting their social media strategies, navigating a reality where consumers hold greater influence, and cultural and societal norms play a pivotal role (Kietzmann et al., 2011). Nowadays, consumer complaints can instantly reach millions of people through negative electronic word-of-mouth, potentially damaging businesses (Ismagilova et al., 2017). Embracing social media marketing as an integral component of their overall business strategy can yield substantial benefits for organizations (Abed et al., 2016). Social media provides companies with a means to connect with customers, enhance brand awareness, shape consumer attitudes, gather feedback for product/service improvement, and boost sales (Kapoor et al., 2018).

Additionally, digital and social media technologies have been widely employed to raise awareness of public services and promote political initiatives (Grover et al., 2019). These strategies enable companies to achieve their marketing goals at a relatively low cost (Ajina, 2019). With more than 50 million registered businesses on Facebook pages and over 88% of businesses utilizing Twitter for marketing, these platforms have become indispensable for reaching and engaging with consumers (Lister, 2017).As people spend increasing amounts of time online seeking information, discussing product and service experiences with fellow consumers, and interacting with companies, organizations have recognized the importance of digital and social media as integral components of their marketing strategies (Stephen, 2016). Numerous studies have demonstrated the positive impact of social media marketing on customer retention and purchase intention in various contexts, including hotels, luxury fashion brands and universities (Morra et al., 2018).

Furthermore, digital and social media marketing has shown positive effects on various aspects of a company's brand including brand meaning, brand, brand loyalty and brand sustainability (Tarnovskaya and Biedenbach, 2018). For instance, Stojanovic et al. (2018) applied schema theory and a multidimensional approach to brand equity, revealing a positive relationship between the intensity of social media use, brand awareness, and intention to engage in electronic word-of-mouth communication. Overall, research has shown that social media can significantly influence brand loyalty, sustainability, and overall business effectiveness (Ibrahim & Aljarah 2018).

3. DIGITAL COMMUNICATION AND SOCIAL MEDIA

3.1 Digital Marketing

According to Dave Chaffey, digital marketing can be defined as "the pursuit of marketing objectives through the utilization of digital media, data, and technology." Digital marketing revolves around the management of various online presences for businesses, including company websites, mobile applications, and social media profiles. It encompasses a range of digital marketing communication techniques, such as search engine marketing, content marketing, social media marketing, online advertising, email marketing, and collaborations with other websites.

Advantages of Digital Marketing:

- Cost Efficiency: Digital marketing is a costeffective alternative to traditional marketing. When executed effectively, it can yield a substantial return on investment (ROI). Focusing marketing efforts where people already spend their time online often results in high-quality leads.
- Global Reach: Operating a business online is more cost-effective and allows for a broader reach, connecting with diverse audiences worldwide.
- Potential for Virality: Distributing content online carries the potential for viral sharing via social networks, which can bring in additional business at little to no extra cost.
- 4) Measurable Results: Digital marketing efforts are highly trackable, thanks to the availability of various analytics tools. These tools enable

detailed tracking of performance, including form analytics and Google analytics.

- 5) Competitive Edge: In today's digital age, consumers increasingly expect all brands, products, services, and even small businesses to have a strong online presence. Digital marketing helps you stay competitive in this evolving landscape.
- 6) Personalization: Digital marketing excels in catering to small businesses due to its ability to personalize the user experience. By automatically tailoring the user experience based on individual interests and behaviors, businesses can present targeted offers that resonate with specific customer profiles at the page level.

In essence, digital marketing offers a cost-effective, globally accessible, and measurable approach to reaching and engaging with audiences, making it an essential strategy for businesses looking to stay competitive and effectively connect with their target customers in today's digital world.

3.2 Digital Marketing

Social Media Marketing (SMM) refers to the practice of utilizing social media platforms and networks to promote a company's products and services. It offers businesses a means to engage with both their existing customer base and new potential customers while also providing a platform to convey their desired brand culture, mission, or tone. A more comprehensive definition of Social Media Marketing can be articulated as follows: "Monitoring and facilitating customer interaction, participation, and sharing through digital with the goal of encouraging positive media engagement with a company and its brands, ultimately leading to commercial value. These interactions may take place on the company's website, social networks, and other third-party websites" (Chaffey, D, 2002).

Benefits of Social Media Marketing:

- 1) Increased Exposure: Among global industry professionals, the most commonly acknowledged benefit of utilizing social media for marketing is the potential for expanded exposure. This is largely due to the vast user base on social platforms, offering a substantial audience for advertising efforts.
- 2) Improved Traffic and Lead Generation: Social media marketing has proven to be an effective strategy for driving traffic to websites and generating leads. Engaging content and campaigns can draw users to explore a company's offerings.
- 3) Enhanced Customer Loyalty: Through regular engagement and interaction on social media

platforms, companies can foster and strengthen loyalty among their existing customer base.

In the realm of social media marketing, there is a division between those with extensive experience (more than five years) and newcomers (less than one year). Social media marketing strategies can be either passive or active. Passive strategies rely on user-generated content and foster natural communication among customers. On the other hand, active strategies involve deliberate tactics and teams dedicated to creating and executing marketing campaigns. Within the active approach, influencer marketing has gained prominence as customers seek knowledgeable, authentic, and transparent advertising. The landscape of how brands are discovered, shared, and experienced is continually evolving due to digital channels. In 2022, there are approximately 4.62 billion monthly active users on social networks, representing 58.4 percent of the global population. Social media user numbers have shown robust growth over the past year, with 424 million new users joining social media during this period.

Businesses have responded by allocating more resources to digital marketing. According to Gartner, technology now accounts for 29 percent of total marketing expense budgets, and digital advertising spending for 2020 was estimated to be around \$385 billion. However, this shift to digital marketing comes with new challenges. Consumers use social media to provide real-time feedback on products, services, and advertising campaigns, placing increased demands on businesses. To succeed in the digital realm, companies must have a clear understanding of their goals and values, and they must consistently deliver on their brand promises to maintain high levels of online engagement and customer enthusiasm. Ultimately, the success of digital strategies hinges on a company's ability to align its actions with its brand identity.

3.3 Challenges to Social Media Marketing

In addition to the conventional challenges, several significant hurdles can jeopardize the success of a social media marketing plan. These challenges encompass issues like unclear ownership, potential departmental disconnects, and a lack of an integrated approach, as highlighted in a report by Frost & Sullivan in 2010. The issue of unclear ownership and accountability, although less common, continues to persist and perplex organizations. Often, companies struggle to establish a clear direction for their social media customer initiatives. This confusion arises from the absence of well-defined roles and responsibilities and inadequate involvement in the task allocation process. Furthermore, the difficulty in defining, identifying, and quantifying returns on investment from social media initiatives often leads to reluctance among department leaders to approve necessary investments. Consequently, interdepartmental inconsistencies arise, particularly concerning accountability.

A comprehensive and effective social media campaign necessitates the coordinated efforts of various departments, including sales, marketing, customer service, corporate communications, and others. However, it is observed that these departments frequently implement their individual applications, resulting in disjointed applications, redundant data collection, and a fragmented consumer experience across different channels. Additionally, departments often compete for limited IT resources, which hampers a timely and integrated approach. This can result in the generation of low or negligible value, as IT resources are utilized without identifying the crucial dependencies required for specific activities. Other organizational and process inconsistencies may involve incomplete reporting of sentiments, undermining the situation's true nature, or inaccurate measurement of the campaign's reach and awareness, leading to inflated metrics. Inappropriate utilization of relevant metric systems for assessing engagement levels across various platforms can also be problematic. Inconsistent feedback collected from social media activities can derail the campaign from its predefined objectives.

4. FACTORS INFLUENCING EFFEC-TIVENESS OF SOCIAL MEDIA ON DIG-ITAL COMMUNICATION

The effectiveness of social media on digital communication is influenced by several key factors.

- Content Relevance: The relevance and quality of the content organizations share on social media platforms are paramount. To be effective, the content must align with the interests and needs of the target audience. High-quality content, including well-written articles, eye-catching visuals, and engaging videos, can capture and maintain the audience's attention. Content that provides value, educates, entertains, or solves a problem tends to perform well. Consistency in content creation and posting schedules is also crucial. Regular and reliable content updates keep customers engaged and returning for more.
- 2) Customer Interaction: Social media is inherently social, and engagement with customer is vital. Effective communication involves not only broadcasting messages but also actively listening and responding to customer. Encouraging discussions, ask questions, and respond promptly to comments and messages are necessary for customer engagement. Building a sense of community and fostering two-way communication can effectiveness enhance the of digital communication. User-generated (UG) content

and customer testimonials can also contribute to engagement. When customers actively participates in discussions and shares their experiences, it adds authenticity and credibility to the brand.

3) Social Media Metrics: Choosing the right social media platforms for is critical. Different platforms cater to different demographics and interests. Sentiment analysis provides a means to gather real-time feedback from customers. By monitoring sentiment, organizations can understand customer opinions and concerns, enabling them to make informed decisions and improvements. Tailoring approach to each platform's unique characteristics and audience expectations is also necessary.

The effectiveness of social media on digital communication hinges on the relevance and quality of content, active customer engagement and interaction, social media metrics and the strategic selection and alignment of social media platforms with business goals. By focusing on these factors, the impact of social media efforts can be maximized and enhanced using digital communication

5. RESEARCH METHODOLOGY

5.1 Objectives

- 1) To study the factors impacting the effectiveness of social media.
- 2) To understand the relevance of content strategy, customer engagement and interaction and Social Media metrics on Digital Communication.
- 3) To put forth certain suggestions and conclusions based on the findings that have been arrived.

5.2 Hypotheses

- Null Hypothesis (H0): There is no significant relationship between Content strategy, Social Media metrics and customer engagement and interaction on Digital Communication
- Alternate Hypothesis (H1): There is a significant relationship between Content strategy, Social Media metrics and customer engagement and interaction on Digital Communication.

5.3 Methodology

The survey was conducted in Hyderabad District in Telangana state of India. The study was conducted using both the primary data and secondary data. Field survey method was employed to collect primary data from 116 respondents in Hyderabad District by using judgment and snow ball sampling. The participants selected for this study consisted different small and medium scale industries in Hyderabad District. Structured questionnaire is used for data collection. Secondary data was collected from various books, journals, newspapers, magazines, reports, periodicals, reports, internet, unpublished thesis. The reliability of questionnaire was determined by using Cronbach's Coefficient alpha. The information thus collected has been analyzed using SPSS version 22.0. The data was analyzed quantitatively using frequency distributions and descriptive statistics while ANOVA was used to establish associations between variables.

6. RESULTS AND DISCUSSIONS

To test the hypothesis of the study independent and dependent variables were subjected to standard multiple

Table 1. Pearson Correlation between the variables

regression analysis. The study was conducted to know how independent variables viz., Content Relevance, Customer Engagement and Social Media Metrics related to the dependent variable, Social Media Effectiveness. This study also investigates how much variation the independent variables (Content Relevance, Customer Engagement and Social Media Metrics) explain in the dependent variable (Social Media Effectiveness) (Table 1).

The Pearson correlation coefficient between the Social Media Effectiveness and Customer Engagement is 0.854 with a significance level is 0.000. So there is a strong positive correlation between these two variables. Again, the r-value between content relevance and social media metrics is positively low when compared with other relations which is about 0.451.

		Social Media	Content	Customer	Social Media
		Effectiveness	Relevance	Engagement	Metrics
	Pearson				
Social Media	Correlation	1	.767	.854	.546
Effectiveness	Sig. (2 tailed)		.000	.000	.000**
	Ν	250	250	250	250
	Pearson				
Contout Dalara	Correlation	.767	1	.601	.451
Content Relevance	Sig. (2 tailed)	.000**		.000**	.000
	N	250	250	250	250
	Pearson				
Customer	Correlation	.854	.601	1	.634
Engagement	Sig.(2 tailed)	.000	.000		.000
	Ν	250	250	250	250
	Pearson				
Social Media	Correlation	.546	.451	.634	1
Metrics	Sig.(2 tailed)	.000	.000**	.000	
	N	250	250	250	250

**. Correlation is significant at the 0.01 level (2-tailed)

The Pearson correlation coefficient between the Social Media Effectiveness and Customer Engagement is 0.854 with a significance level is 0.000. So there is a strong positive correlation between these two variables. Again, the r-value between content relevance and social media metrics is positively low when compared with other relations which is about 0.451.

The table 2 clearly shows the result of the coefficient of determination (R square) value which is .831, expressed as 83.1 percent. This suggests that the independent variables in hypothesis predicted 83 percent of the dependent variable – Social Media Effectiveness.

Table 2. Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.912 ^a	.831	.798	.37560

a.Predictors: (Constant), Content Relevance, Customer Engagement and Social Media Metrics b.Dependent Variable: Social Media Effectiveness

Table 3. ANOVA^a

Mod	el	Sum of Squares	df	Mean Square	F			
1	Regression	53.849	3	17.949	161.702			
	Residual	27.451	247	.111				
	Total	81.300	250					
a.	a. Dependent Variable: Social Media Effectiveness							
b.	Predictors (Constant). Content Relevance, Customer Engagement and Media Metrics.							

The above result (Table 3) has also been confirmed as statistically significant from the ANOVA results: {F (3, 247) = 161.702, p <0.001). A significant linear relationship therefore exists between Content Relevance, Customer Engagement and Social Media Metrics and Social Media Effectiveness, providing support for the hypothesis.

The Pearson correlations results in the second column of Table 4 indicate positive significant correlations between the dependent variable (Social Media Effectiveness) and three of the independent variables which are .767, .854 and .546 respectively Table 4 and Table 5. This suggests that there is a significant association between the Social Media Effectiveness and factors influencing it.

Table 4. Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	4	Sia	95.0% Confidence Interval for B	
		В	Std. Error	Beta	L	Sig.	Lower Bound	Upper Bound
1	(Constant)	2.816	.328		8.581	.000	2.168	3.463
	Content Relevance	.767	.070	.798	.754	.002	.186	2.191
	Customer Engagement	.854	.082	.892	1.324	.123	.153	2.270
	Social Media Metrics	.546	.075	.612	1.116	.005	.153	1.873
	a. Dependent Variable: Social Media Effectiveness							

Table 5. Regression of (R-Square =83.1%, ** p<.001)

Factors influencing Social Media effectiveness	Pearson Correlation	Beta Scores
Factor1: Content Relevance	.767	.798
Factor 2: Customer Engagement	.854	.892
Factor 3: Social Media Metrics	.546	.612

N=250

In the beta scores presented in Table 5, Customer engagement which are the reasons for the effectiveness of social media, made the strongest unique contribution to the explanation of the dependent variable with the largest significant beta coefficient of .892. This was followed by the content relevance, with a significant beta value of .798. Therefore, all the results provide support for hypothesis and show that all the independent variables significantly contribute to the success of dependent variable (Social Media Effectiveness).

Thus H_0 is rejected and H_A is accepted which implies that there is a significant impact of Content Relevance, Social Media metrics and customer engagement and interaction on Digital Communication.

7. CONCLUSION

The study aimed to conduct a comprehensive investigation of the effectiveness of digital communication and its challenges of social media marketing strategies. SMEs show notable tendencies for technological readiness and adoption at a time when social media culture is expanding. According to the findings, independent variables such as content relevance (creating brand awareness, consistency, and user-generated content), social media metrics (platform selection, sentimental analysis) and customer engagement (reach, engagement) are significant in influencing the consumer's perception of the value of social media marketing as a tool of digital communication. Organizations must deliberately employ social media marketing to appeal to their target audiences as more customers use social media in their daily activities (Global Web Index Social Flagship Report, 2023). The lack of appropriate scales to measure and investigate constructs of interest, the ongoing changes in social media platforms, and changing consumers' attitudes and behaviors are some of the hindrances in using social media to reach consumers. To better understand the concept of social media marketing, academicians and practitioners can carry out additional research in these areas.

References

Abed, S. S., Dwivedi, Y. K., & Williams, M. D. (2016). Social commerce as a business tool in Saudi Arabia's SMEs. *International Journal of Indian Culture and Business Management*, 13(1), 1–19.

Ajina, A. S. (2019). The perceived value of social media marketing: An empirical study of online word-of-mouth in Saudi Arabian context. *Entrepreneurship and Sustainability Issues*, 6(3), 1512–1527.

Chaffey, D. (2023, June 28). What is digital marketing? Use RACE to structure your digital plans. *Smart Insights*. Retrieved from https://www.smartinsights.com/digital-marketing-strategy/what-is-digital-marketing/

- Dwivedi, Y. K., Ismagilova, E., Hughes, D. L., Carlson, J., Filieri, R., Jacobson, J., ... & Wang, Y. (2021). Setting the future of digital and social media marketing research: Perspectives and research propositions. *International journal of information management*, 59, 102168.
- Ibrahim, B., & Aljarah, A. (2018). Dataset of relationships among social media marketing activities, brand loyalty, revisit intention. Evidence from the hospitality industry in Northern Cyprus. *Data in Brief*, *21*, 1823–1828.
- Kapoor, K. K., Tamilmani, K., Rana, N. P., Patil, P., Dwivedi, Y. K., & Nerur, S. (2018). Advances in social media research: Past, present and future. *Information Systems Frontiers*, 20(3), 531–558.
- Kietzmann, J. H., Hermkens, K., McCarthy, I. P., & Silvestre, B. S. (2011). Social media? Get serious! Understanding the functional building blocks of social media. *Business Horizons*, 54(3), 241–251.
- Lister, M. (2017). 40 essential social media marketing statistics in one cool infographic. *WordStream*. Retrieved from https://www.wordstream.com/blog/ws/2017/01/05/social-media-marketing-statistics
- Morra, M. C., Gelosa, V., Ceruti, F., & Mazzucchelli, A. (2018). Original or counterfeit luxury fashion brands? The effect of social media on purchase intention. *Journal of Global Fashion Marketing*, 9(1), 24–39.
- Schultz, D. E., & Peltier, J. (2013). Social media's slippery slope: Challenges, opportunities and future research directions. *Journal of Research in Interactive Marketing*, 7(2), 86–99.
- Stojanovic, I., Andreu, L., & Curras-Perez, R. (2018). Effects of the intensity of use of social media on brand equity. *European Journal of Management and Business Economics*, 27(1), 83–100.
- Tarnovskaya, V., & Biedenbach, G. (2018). Corporate rebranding failure and brand meanings in the digital environment. *Marketing Intelligence & Planning*, 36(4), 455–469.
- Topic: Social media. (n.d.). *Statista*. Retrieved September 23, 2023, from https://www.statista.com/topics/1164/social-networks/

Bade Sudarshan Chakravarthy Research Scholar, Annamalai University, Tamilnadu India <u>bschakravarthy@hotmail.com</u> ORCID: 0009-0006-3283-0115 **B. Uma Rani** Assistant Professor- Management Studies, BVRIT HYDERABAD College of Engineering for Women, Hyderabad, Telangana <u>umarani.b@bvrithyderabad.edu.in</u> K. Karunakaran Assistant Professor-Department of Business Administration, Annamalai University, Tamilnadu, India <u>karnakarthikk@gmail.com</u> ORCID: 0000-0002-7827-7478 Chakravarthy et al., Data-driven insights into social media's effectiveness in digital communication