IMPACT OF DIGITAL MARKETING ON CONSUMER BUYING BEHAVIOR IN THE DAIRY INDUSTRY

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ABSTRACT

The study examines how digital marketing strategies impact consumer preferences for dairy products, with a focus on how social media, influencer marketing, and content marketing impact consumer behavior. As traditional marketing increasingly gives place to digital marketing, dairy brands successfully engage with consumers through online platforms. This study evaluates the role that influencer endorsements, social media ads, email marketing, and search engine ads have in fostering consumer trust. Using a quantitative survey approach, consumer responses to digital advertisements were investigated, with particular attention paid to features including visual appeal, personalization, and verified certifications. According to research, Instagram and YouTube are the most successful platforms, and consumer engagement is significantly boosted by health-focused messaging. According to research, Instagram and YouTube are the most successful platforms, and consumer engagement is significantly boosted by health-focused messaging. Conversion rates are still moderate despite rising levels of digital interaction, highlighting the need for more effective call-to-action tactics. Dairy products that are organic, antibiotic-free, and sustainable are preferred by consumers, and transparency and validated certifications are crucial factors to take into account when making purchases. Digital engagement and actual sales had a moderately good association (r = 0.4307), according to the research, suggesting that although digital marketing affects consumer interest, conversion requires extra strategies. Future recommendations include using AI-driven personalization, enhancing social media interaction, and including seamless purchasing experiences to boost the effectiveness of digital marketing in the dairy industry.

Keywords: Social Media Marketing, Influencer Marketing, Content Marketing, Digital Marketing, Consumer Preferences, The Dairy Industry, And Consumer Engagement.

INTRODUCTION

With the rise of digital marketing, there is now a paradigm shift in the worldwide dairy sector, as more interactive and customer-focused online strategies have supplanted traditional advertising techniques (Ahmadi Kaliji et al. 2019). Digital marketing, which encompasses a range of techniques like email campaigns, influencer collaborations, social media marketing, and search engine optimization, has a significant impact on consumer preferences for dairy products.(SEO), and content marketing (Barbu, 2024).Brand-consumer interactions have been transformed by the growing use of social media sites such as YouTube, Instagram, and Facebook, which allow businesses to communicate with their audience by producing visually appealing and educational material ("Effects of Advertising on Dairy Purchasing Behavior," 2024) .According to research, over 70% of buyers base their judgments on online reviews, product certifications, and digital information, demonstrating an increasing reliance on Digital content and product (Semenov, et al. 2024). One of the most crucial aspects of digital marketing in the dairy industry is social media marketing. Companies use live conversations, short-form videos, and interesting postings to foster trust

and raise brand awareness (Hu, 2019). Since customers are more likely to believe nutritionists, food bloggers, and health influencers who promote dairy products, influencer-driven marketing initiatives are quite successful (Pinto et al., 2016) When consumers seek for sustainable or health-conscious solutions, SEM strategies like Google Ads and customized search engine marketing guarantee that dairy products show up at the top of search results (Novanda, Saputra, Priyono, & Sriyoto, 2021).

Sustainability concerns, ethical branding, and health consciousness have all had a big impact on consumer preferences in the dairy sector.Companies are embracing digital platforms to showcase their quality certifications, environmental commitments, and responsible sourcing procedures Given the increasing demand for dairy products, that are sustainable, organic, and antibiotic-free (Rajalakshmi et al. 2023).Because they enable marketers to post interactive information, such as behind-the-scenes production methods, customer testimonials, and expert assessments, studies reveal that Instagram (60.3%) and YouTube (26.7%) are The most efficient ways to influence dairy consumer decisions (Patel & Mehta, 2023). Additionally, businesses may now target particular demographics, customize promotions, and improve customer engagement thanks to personalized marketing methods like AI-driven recommendations and data analytics (Maruthamuthu, 2024).The disconnect between engagement and conversion is among the largest issues dairy brands face, even with their growing reliance on digital marketing (Rowley, 2016). Despite the high levels of interaction generated by digital advertisements and social media posts, only a moderate portion of interested customers go on to complete purchases ("Infant Formula in China: Assessing Consumer Impact From a Country of Origin Perspective," n.d.).According to research, components that are necessary to raise conversion rates include validated product certifications, the reliability of digital platforms, and interactive consumer interaction tactics (OECD-FAO Agricultural Outlook, 2023). Furthermore, According to research, businesses that put sustainability and source transparency first typically have more loyal clients. , as 51.1% of buyers Favor goods with verified organic or antibiotic-free labelling (Supendi & Winarko, 2023).

Dairy brands should concentrate on utilizing AI-driven personalization, boosting transparency, and refining call-to-action tactics to close the gap between engagement and purchase intent to increase digital marketing's effectiveness (Nagvanshi, et al. 2025). Additionally, including direct-to-consumer (D2C) sales strategies via digital platforms might enhance brand-consumer interactions and lessen reliance on conventional retail chains (Mohanty, 2023).In a market that is becoming more and more digitally driven, dairy companies can increase their digital marketing impact and foster enduring consumer loyalty and trust by implementing these tactics (Ministry of Commerce & Industry & Department of Commerce, 2023).

METHODOLOGY

Digital marketing's effects methods on customer preferences for dairy products is examined in this study using a quantitative research approach and a thorough literature review. In order to uncover important digital marketing tactics, trends in consumer behaviour, and factors impacting purchasing decisions, a total of 25 peer-reviewed research articles, industry reports, and government publications were examined.

These sources were chosen from reports from agencies like the Food and Agriculture Organization (FAO) and OECD-FAO Agricultural Outlook, as well as reputable journals like the Journal of Dairy Science, International Journal of Advertising, and Industrial Marketing Management. The efficiency of digital marketing tactics, consumer engagement and trust factors, influence on purchasing behaviour, and the role of artificial intelligence (AI) in

personalized marketing were among the issues that guided The examination of the research publications.

This study provides a comprehensive analysis of the influence of digital marketing on consumer preferences in the dairy industry through the synthesis of findings from 25 research articles. Additionally, it presents strategic recommendations for brands to enhance their digital marketing initiatives and strengthen their consumer relationships.

Digital consumers who actively participate in online dairy the target group for the research includes marketing campaigns and promotions. To guarantee that customers from a range of demographic backgrounds—including various age groups, income brackets, and geographic locations—were included, convenience sampling was used (Pulizzi, 2013)

Secondary research from published literature and primary quantitative data analysis using structured surveys were the data collection methods employed in this study. Key elements like the effectiveness of advertising, customer trust in verified certifications, and the effect of AI-driven personalization on purchase behaviour were assessed by statistical techniques such as correlation analysis.

Strict ethical procedures are followed in this study to protect participant privacy and confidentiality. Informed consent is acquired before to participation, and all data gathered is anonymised to avoid using personal identifiers. In order to ensure voluntary participation, participants had the option to withdraw at any time.

The use of an online poll may exclude older or less tech-savvy customers, which could skew the results toward people who use the internet more frequently. This is among the research's drawbacks, along with sample bias. Furthermore, because participants may not precisely recall their exposure to digital marketing methods, self-reported data may introduce response bias.

Lastly, the study's focus is restricted to well-known Email marketing and social media are examples of digital marketing channels. It is noticed that newer marketing techniques and emerging digital platforms might not be adequately covered, necessitating additional research to fully comprehend their impact on changing consumer preferences.

We started by using the Web of Science database, which is renowned for its transparent and high-Caliber research. The terms 'digital marketing' AND 'consumer preferences' AND 'dairy products' in the abstract, title, or keywords were used in a Boolean keyword search in November 2024. We also used the same terms in Google Scholar and Scopus to broaden our search. 785 published publications that were pertinent to the subject were found in this initial search, which was conducted without regard to journal restrictions.

We then narrowed down our pick by performing a journal-specific search. Since these journals frequently publish studies on digital marketing and consumer behaviour in the dairy industry, we concentrated on high-impact journals including the Journal of Dairy Science, International Journal of Advertising, and Industrial Marketing Management. The dataset now totals 817 items after 32 more articles were found by using the same search term within these journals Rekha & Maruthamuthu (2024).

We used particular filtering criteria to guarantee a thorough selection procedure. Relevance to digital marketing strategies in the dairy sector, empirical robustness (i.e., the application of statistical models such as regression and correlation), and credibility (i.e., ensuring all sources were peer-reviewed) were the criteria utilised to shortlist articles. Following the application of these criteria, 64 papers were selected for further evaluation. We were able to balance the advantages of statistics with the need to carry out a high-Caliber systematic review thanks to this step (Novanda, et al. 2021).

From the studies that made the short list, the 25 most relevant research articles were carefully selected. These studies concentrated on important topics like content marketing, influencer partnerships, social media marketing, and AI-driven customisation. The decision

was made to ensure that the study provided comprehensive insights into consumer loyalty, purchasing behaviour, and trust within the dairy industry. Our quantitative analysis was built on these 25 studies.

We made sure the review was fair and trustworthy by choosing 25 excellent research publications. This figure enabled us to keep a concentrated approach while capturing a variety of viewpoints. Data-driven insights from the chosen studies helped to clarify how customer choices for dairy products are influenced by digital marketing. The validity and relevance of our research findings are substantiated by this methodological approach, which additionally provides dairy companies with empirical recommendations for enhancing their digital marketing strategies.

Descriptive Results

The questionnaire, which thoroughly looks at important elements impacting purchasing behavior, is crucial for researching how digital marketing methods affect customer preferences for dairy products.
It assists organizations in prioritizing high-impact channels by identifying the most successful digital marketing tactics, including influencer marketing, content marketing, and social media advertisements.

In order to ensure insights into brand perception, it also evaluates consumer trust and engagement with digital material, especially in regard to sustainability and health-conscious choices. Furthermore, it tracks consumer behavior, such as how brand loyalty and purchase

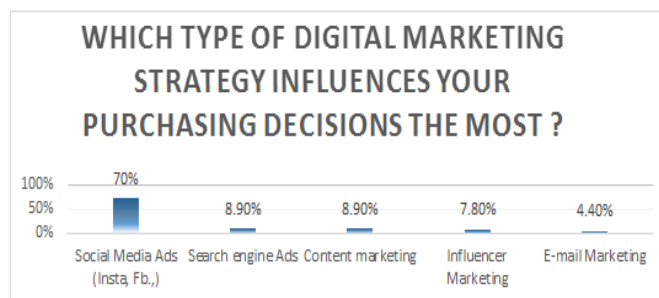| Table1 DIGITAL MARKETING STRATEGY	
Type of Digital Marketing	Percentage (%)
Social Media Ads (Insta, Fb.,)	70
Search engine Ads	8.9
Content marketing	8.9
Influencer Marketing	7.8
E-mail Marketing	4.4

Source: Primary data.

Decisions are influenced by digital marketing, establishing a direct connection between marketing initiatives and real behaviour.

Dairy brands may improve their strategy by examining these responses and concentrating on the best platforms, content kinds, and interaction tactics to increase conversions and improve client relationships Figures 1-8.

Interpretation

The above table 1 shows that Social Media Ads (70%) dominate as the most influential digital marketing strategy. Other methods like Search Engine Ads (8.9%), Content Marketing (8.9%), Influencer Marketing (7.8%), and Email Marketing (4.4%) have much lower influence.
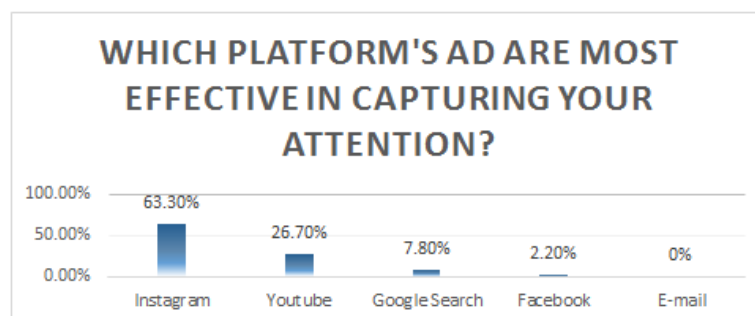
FIGURE 1
DIGITAL MARKETING STRATEGY

Table 2 DIGITAL PLATFORM	
Digital platform	**Percentage**
Instagram	60.3
Youtube	26.7
Google Search	7.8
Facebook	2.2
E-mail	1

Source: Primary data

Interpretation

The above table 2 depicts that Instagram (60.3%) is the most effective platform, YouTube (26.7%) is the second most preferred. Google Search (7.8%), Facebook (2.2%), and Email (1%) have lower effectiveness. This suggests that visually engaging content and short video marketing on Instagram and YouTube work best.
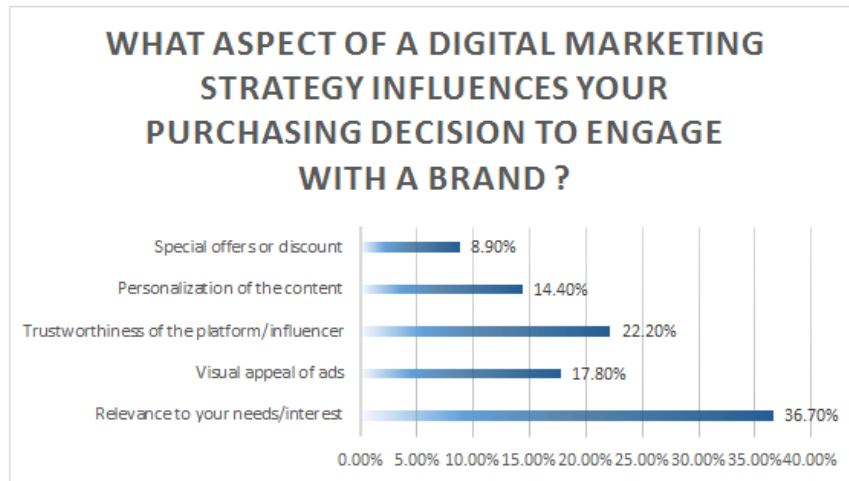

FIGURE 2
DIGITAL PLATFORM

Table 3 REASON TO ENGAGE	
Reason	Percentage
Relevance to your needs/interest	36.7
Visual appeal of ads	17.8
Trustworthiness of the platform/influencer	22.2
Personalization of the content	14.4
Special offers or discount	8.9

Source: Primary data

Interpretation

The above table 3 shows that Relevance to needs/interests (36.7%) is the primary reason consumers engage with brands. Trustworthiness of the platform/influencer (22.2%) and Visual appeal of ads (17.8%) also play crucial roles. Personalization (14.4%) and Special offers/discounts (8.9%) have lower influence. Hence it is suggested that brands should focus on relevant, personalized, and visually appealing content to drive engagement.
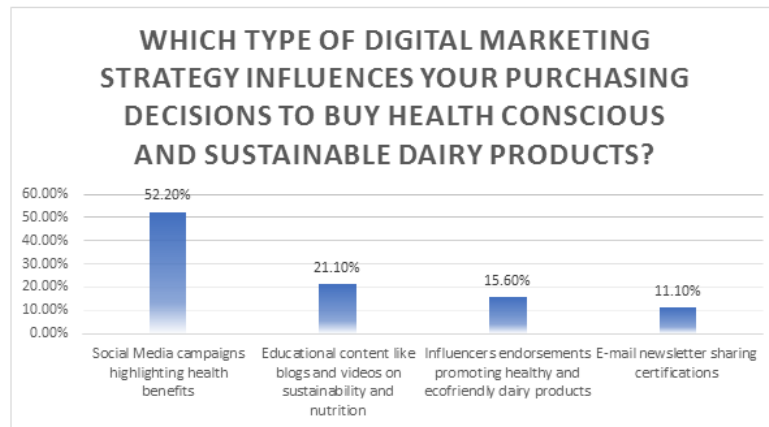

FIGURE 3
REASON TO ENGAGE

Table 4	
DIGITAL MARKETING STRATEGY	
Type of Digital Marketing	**Percentage (%)**
Social Media campaigns highlighting health benefits	**52.2**
Educational content like blogs and videos on sustainability and nutrition	**21.1**
Influencers endorsements promoting healthy and eco-friendly dairy products	**15.6**
E-mail newsletter sharing certifications	**11.1**

Source: Primary data.

Interpretation

The above table 4 represents that Social Media Campaigns Highlighting Health Benefits (52.2%) are the most effective. Educational Content (21.1%), Influencer Endorsements (15.6%), and Email Newsletters (11.1%) are less effective. This suggests consumers are more driven by health-related messaging in dairy product marketing.
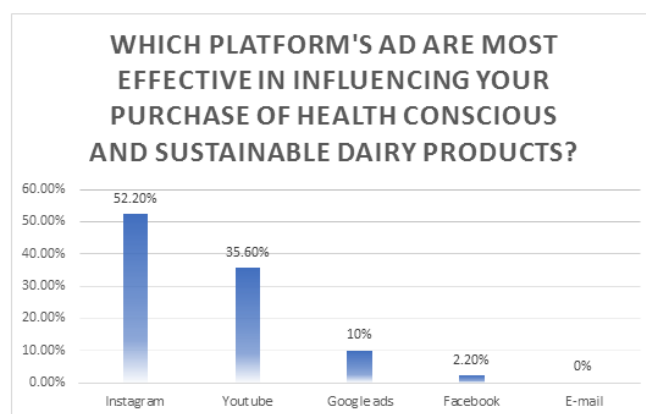
FIGURE 4
DIGITAL MARKETING STRATEGY

Table 5 DIGITAL PLATFORM (CHENNAL)	
Digital platform	**Percentage**
Instagram	52.2
Youtube	35.6
Google Search	710
Facebook	2.2
E-mail	1

Source: Primary data

Interpretation

The above table 5 depicts that Instagram (52.2%) and YouTube (35.6%) dominate. Google Search (7.8%), Facebook (2.2%), and Email (1%) have minimal impact. Again, social media, especially Instagram and YouTube, remain the most powerful marketing platforms.
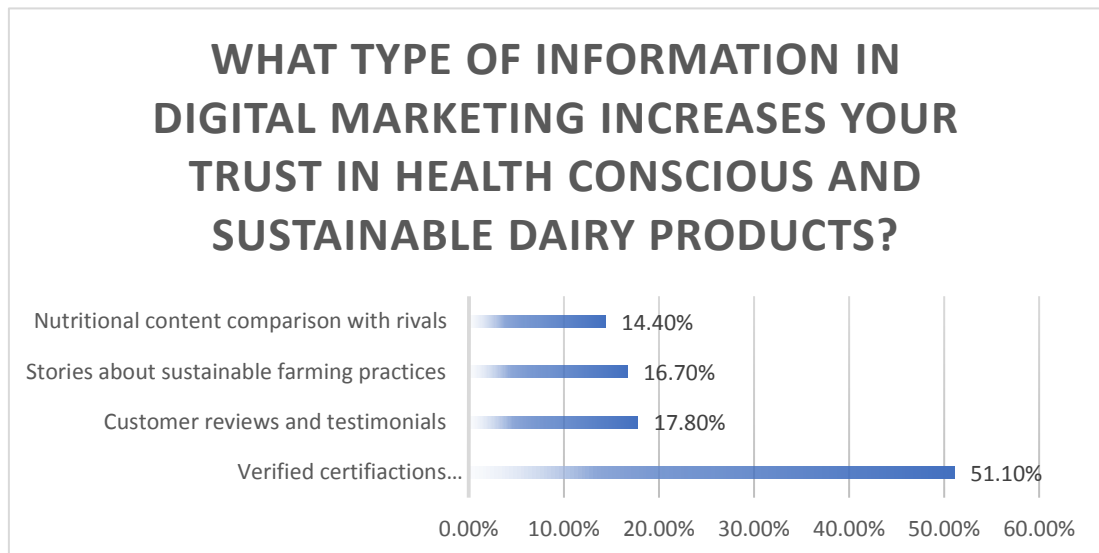

FIGURE 5
DIGITAL PLATFORM (CHENNAL)

Source: Primary data.

Interpretation

The above table 6 shows that Verified Certifications (51.1%) (e.g., organic, antibiotic-free) are the most important. Customer Reviews (17.8%), Sustainability Stories (16.7%), and Nutritional Comparisons (14.4%) follow. This suggests that transparency and authenticity in labeling and certifications significantly influence consumer trust.
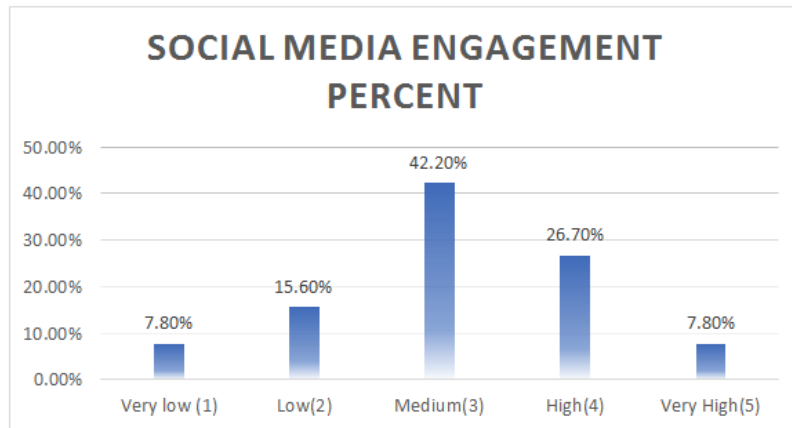

FIGURE 6
TYPE OF INFORMATION

Table 7	
CONSUMER ENGAGEMENT	
No of engagement	**Percentage**
Very low (1)	7.8
Low (2)	15.6
Medium (3)	42.2
High (4)	26.7
Very high (5)	7.8

Source: Primary data.

Interpretation

The above table 7 depicts that medium engagement (42.2%) is the most common, followed by High (26.7%). Very Low (7.8%) and Low (15.6%) engagement indicate a smaller segment of disengaged consumers. This shows that most consumers interact at a moderate to high level with digital marketing.
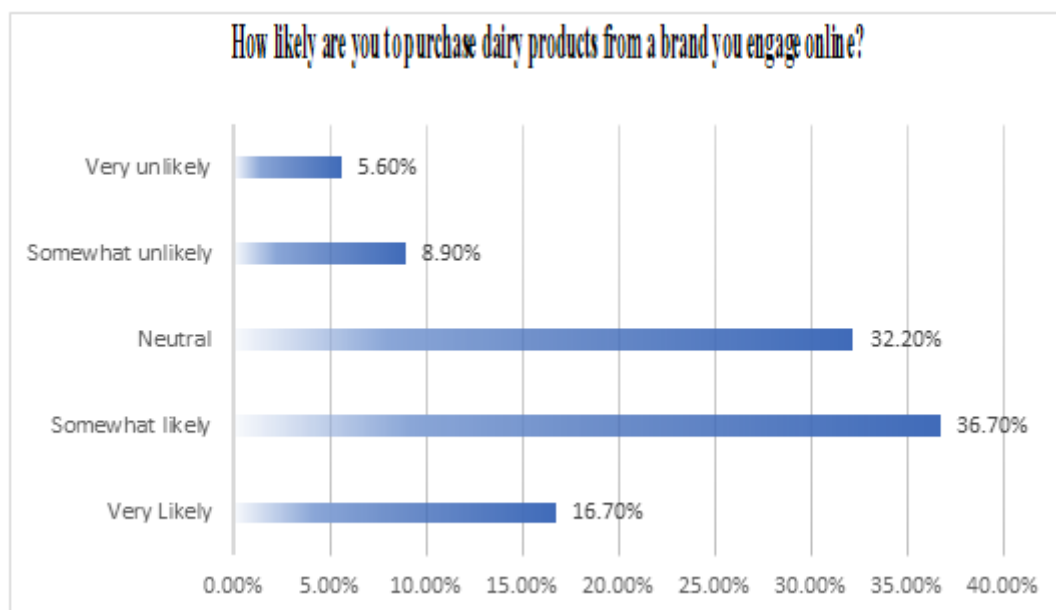
FIGURE 7
CONSUMER ENGAGEMENT

Source: Primary data.

Table 8 PURCHASE FROM ENGAGING WITH DIGITAL ADS	
Purchase	**Percentage**
Very Likely (5)	16.7
Somewhat likely (4)	36.7
Neutral (3)	32.2
Somewhat unlikely (2)	8.9
Very unlikely (1)	5.6

Interpretation

The above table 8 shows that Somewhat Likely (36.7%) and Neutral (32.2%) are the dominant responses. Very Likely (16.7%) indicates a smaller but promising group. Somewhat Unlikely (8.9%) and Very Unlikely (5.6%) suggest a minor portion remains skeptical. This suggests digital engagement can influence purchasing decisions, but additional strategies (like promotions or educational content) may be needed to convert neutral consumers.

How likely are you to purchase dairy products from a brand you engage online?

Very unlikely	5.60%
Somewhat unlikely	8.90%
Neutral	32.20%
Somewhat likely	36.70%
Very Likely	16.70%

FIGURE 8
PURCHASE FROM ENGAGING WITH DIGITAL ADS

Table 9 CO-RELATION		
	No of engagement	*No of purchase*
No of engagement	1	
No of purchase	0.430755816	1

Variables: Number of digital ad engagements & number of purchases Correlation (r): 0.4307

Interpretation

Positive Relationship: Since the value is positive (0.4307), it means that as digital ad engagement increases, the number of purchases also tends to increase.
Moderate Strength: The correlation is between 0.3 and 0.5, which indicates a moderate positive relationship. This suggests that digital ad engagement has some influence on purchases, but other factors are also at play Table 9.

FINDING AND DISCUSSION

The consumer base is evenly distributed across urban (36.7%), semi-urban (33.3%), and rural (30%) areas, highlighting Customized digital marketing is necessary. Strategies tailored to each demographic. Social media advertisements significantly influence purchasing decisions, with 70% of consumers considering them the most impactful, while search engine ads (8.9%), content marketing (8.9%), influencer marketing (7.8%), and email marketing (4.4%) play a lesser role. This underscores the prevalence of social media sites like YouTube and Instagram for dairy product marketing.

Among digital platforms, Instagram (60.3%) is the most effective, followed by YouTube (26.7%), while Google Search (7.8%), Facebook (2.2%), and Email (1%) have relatively lower engagement rates. This indicates that visually engaging and interactive

content drives consumer interest. Consumers primarily engage with brands when content is relevant to their needs (36.7%), with trustworthiness (22.2%) and visual appeal (17.8%) also playing significant roles, while personalization (14.4%) and discounts (8.9%) have less impact. This suggests that personalized and credible content is key to building strong consumer relationships.

In terms of dairy product purchases, social media campaigns emphasizing health benefits (52.2%) are the most effective, followed by educational content (21.1%), influencer endorsements (15.6%), and email newsletters (11.1%). This highlights the importance of health-focused marketing strategies. Instagram (52.2%) and YouTube (35.6%) continue to dominate as the most effective platforms, reinforcing the preference for visual content in consumer decision-making. Consumers prefer information that includes verified certifications (51.1%) such as organic and antibiotic-free labels, while customer reviews (17.8%), sustainability stories (16.7%), and nutritional comparisons (14.4%) also hold significance, emphasizing the role of transparency in building trust.

Engagement levels among consumers are mostly medium (42.2%), with a significant portion displaying high engagement (26.7%). However, some reluctance is evident, with low (15.6%) and very low (7.8%) engagement levels. Digital campaigns should, therefore, focus on enhancing interactivity and incentives to increase engagement. The likelihood of purchasing dairy products after digital engagement remains mixed, with many consumers being somewhat likely (36.7%) or neutral (32.2%), while only 16.7% express strong intent to purchase. Some scepticism is present, as 8.9% are somewhat unlikely, and 5.6% are very unlikely to buy. This implies that even while digital engagement affects consumer behavior when making purchases, more marketing is required to increase conversion rates.

Finally, a moderately good association between involvement with digital ads and actual sales is indicated by the correlation coefficient ($r = 0.4307$). While increased engagement generally leads to higher sales, other factors also play a role in consumer decision-making. A stronger marketing approach is necessary to enhance conversion rates and ensure that digital interactions translate into actual purchases Santhosh Prabhu & Sudha.

DECISIONS AND OUTCOME

Social media, particularly Instagram and YouTube, is the best marketing instrument for dairy products, driving high engagement and significantly influencing purchase decisions. In contrast, other platforms such as Facebook, Google, and Email have a lower impact, making visually engaging content on social media the primary focus for digital marketing efforts. Additionally, consumers are greatly impacted by health-related messaging and verified certifications, with organic, natural, and antibiotic-free assertions that are essential to their purchasing preferences. Dairy brands should emphasize these attributes in their campaigns to build trust and attract health-conscious buyers.

However, while engagement levels are moderate to high, not all engaged consumers make a purchase. This indicates that additional strategies, such as retargeting ads, promotional offers, and influencer partnerships, are necessary to drive conversions. Relevance and trust are important elements in customer interaction, since consumers favor content that reflects their interests and depend on platforms and influencers to be reliable when engaging with brands.

Interestingly, discounts alone are not a strong motivator for engagement, with only 8.9% of consumers engaging due to special offers. Instead of relying solely on promotions, dairy brands should focus on delivering educational content, leveraging credible influencers, and using compelling visual storytelling to connect with consumers and enhance brand loyalty.

FUTURE RESEARCH AGENDA

To strengthen the digital marketing impact for dairy products, brands should prioritize Instagram and YouTube, leveraging short-form videos, reels, and influencer collaborations to drive engagement. These platforms are the most effective in reaching and influencing consumers. Health-based messaging should be a central focus, prominently marketing organic, antibiotic-free, and sustainable dairy products while using content marketing strategies to educate consumers on their nutritional benefits.

Building trust is crucial, and brands can achieve this by displaying certified labels and encouraging consumer testimonials. Video testimonials and client testimonials can improve credibility and foster stronger consumer connections. To improve engagement, interactive content such as polls, Q&A sessions, and giveaways should be utilized, alongside AI-driven personalization to deliver relevant ads tailored to individual preferences.

To convert engagement into sales, implementing retargeting ads is essential. Consumers who engage with content but do not purchase should be targeted with exclusive discounts and follow-up advertisements. Marketing strategies should also be customized based on residency distribution, ensuring that urban consumers receive trendy, visually appealing content, while semi-urban and rural audiences are engaged through educational videos and influencer endorsements.

Influencer marketing could concentrate on collaborations with wellness and health influencers that can successfully showcase sustainability initiatives and validated certifications. Strengthening email marketing with personalized content is also necessary, moving beyond generic newsletters to include tailored recommendations, educational blogs, success stories, and user testimonials.

Data-driven decision-making should guide marketing efforts, with continuous monitoring of correlation trends between digital engagement and purchases. Strategies should be adjusted based on digital campaigns that yield the highest return on investment. Lastly, ensuring a seamless purchase journey is key to improving conversions. Brands should minimize friction in the buying process by offering easy checkout options and integrating direct purchase links within Instagram and YouTube ads to enable instant transactions.

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