Examining the Utilization of Social Media for the E-Commerce of Dairy Products Amidst the Covid-19 Pandemic in India

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Abstract

Amid the COVID-19 pandemic, consumers are increasingly favoring the use of social media. Sellers, in response, are leveraging various social media platforms to create content for communication and sales. This serves as the most convenient method to connect with new consumers, understand their preferences, and fortify customer relationships. The continuous expansion of social networks is linked to the widespread availability and cost-effectiveness of the internet, which includes social media platforms and Web 2.0 technologies. Consequently, a comprehensive understanding of current popular social media sites and social media marketing is imperative for research in this domain.

The primary objectives of this study are to comprehend the impact of social media marketing on online consumer purchases during the COVID-19 pandemic and to identify social media influence in the context of India during this period. Another aim is to understand the factors influencing social media marketing concerning online purchases, with a comparative analysis based on demography and gender.

This research seeks to analyze purchase frequency and expenditure by consumers during the COVID-19 pandemic. To achieve this, a thorough examination of demographic factors such as city of residence, age, gender, occupation, income, preferred social networking sites, product preferences, frequency of dairy product purchases, expenditure patterns, and influential factors is conducted. Online consumer responses are gathered through a Google Form questionnaire, and statistical methods are employed to study demographic factors and other variables.

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Keywords: social media, dairy products, COVID-19, online shopping.

1. Introduction

In the present circumstances, social media becomes a pivotal platform for products and brands to establish connections with their designated audience. Social media platforms, designed to facilitate global connectivity, have experienced a notable surge in usage during the pandemic, with many individuals adhering to stay-at-home measures. A pivotal role played by social media is in the realm of online shopping, where its influence on consumer purchasing decisions is unmistakable. According to a Deloitte report, 29% of social media users opt for same-day purchases through these platforms. The report also projects a substantial growth in Instagram users, reaching nearly 1.2 billion by 2023, with a collective usage of Facebook, Instagram, and WhatsApp at approximately 2.6 billion.

Businesses, as Brandi (2018) notes, predominantly utilize Facebook, Instagram, YouTube, and other major social media platforms. Evaluating their influence on customer loyalty in India, Facebook takes the lead with 94% engagement in retailer

marketing activities, trailed by 39% on Twitter, and 28% on Instagram. The changing lifestyle and preferences have led to an increased demand for dairy products, prompting new companies to adopt innovative strategies to boost sales. This study specifically focuses on investigating the impact of social media on the online acquisition of dairy products during the COVID-19 pandemic. The goal is to recognize the effects of social media marketing on consumers and analyze the patterns in the online sales of dairy products.

Given the stringent lockdowns during the pandemic, physical shopping was restricted, prompting people to turn to social media not only for socializing but also for shopping. Consequently, companies shifted their advertising strategies to capitalize on social media platforms. The investigation, carried out in July 2020 in the capital city of Bhubaneswar, Odisha, collected responses using a Google Form questionnaire, involving 200 participants, out of which 184 were considered appropriate for subsequent analysis.

The research considers distribution channels, categorizing sales into online and retail, gender divisions as male and female, and geographic categorizations based on districts such as Khordha, Cuttack, Jagatsinghpur, and Puri. The consumer decision-making process, adapted from Philip Kotler's model (2008), serves as a reference, encompassing stages such as need recognition, information search, evaluation of alternatives, purchase decision, and post-purchase evaluation.
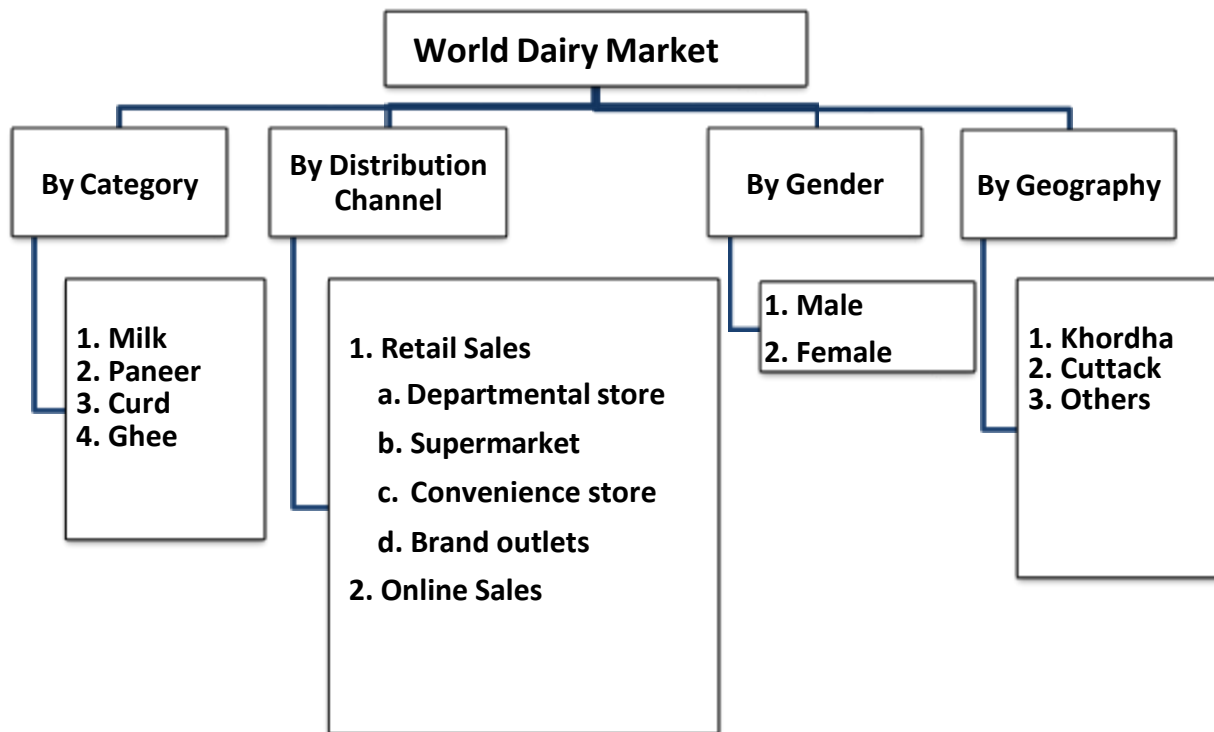
Fig1: World Dairy Market
(Source: www.alliedmarketresearch.com)
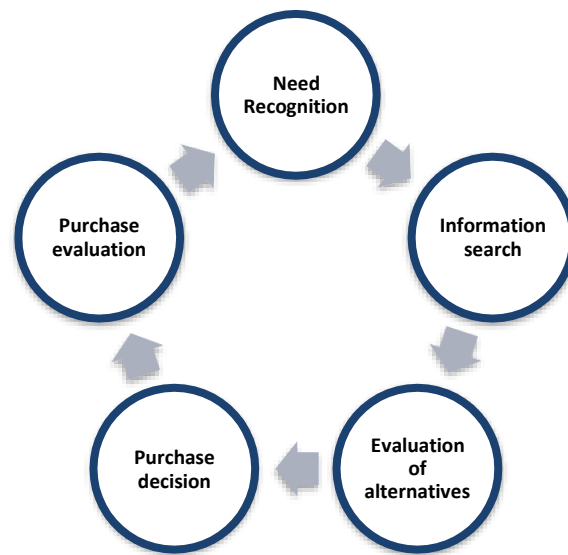
Fig 2: Consumer Decision making process(Source: Philip Kotler,2008)

2. Problem Statement

The study reveals the existence of various challenges in the online sale of dairy products, and consumers experience distinct influences from Social Media Marketing (SMM). Consequently, we conducted an exploratory survey to comprehend the issues identified through a review of literature (Secondary Data) and Primary Data.

During the pandemic, there was a shift in consumer behavior, prompting companies to adapt and meet the demands of a more discerning buyer. These challenges compelled companies to devise innovative strategies to respond to the altered circumstances (Carnevale and Hatak 2020).

In the contemporary landscape, social media plays an increasingly significant role in corporate planning, serving as a highly effective marketing method to influence consumer behavior and facilitate customer relationship-building within the dairy industry. Facebook stands out as the most commonly used social media platform, with Twitter and Instagram following closely behind. According to Miler's study (2010), over 11 million consumers use social media for purchasing goods and services, gaining insights into new products and sharing feedback with fellow consumers.

In Parson's research conducted in 2013, it was discovered that 60% of users on Facebook are inclined to recommend a product after they start following a brand on social media. Matthews' research in 2021 indicates that approximately 51% of Facebook users purchase multiple products. Another study by Parson (2013) notes that 79% of Twitter users can recommend a product to another customer after following the brand on social media.

While the dairy industry is globally recognized as highly desirable, the Indian market witnessed the emergence of numerous new brands on social media platforms during the COVID-19 pandemic. To stay competitive, these brands developed new strategies to attract customers in the online shopping sphere. With the surge in online shopping familiarity during the pandemic, consumers now prioritize online reviews, comparisons, and discussions with friends before making online dairy product purchases. The changing preferences of consumers, influenced by the effects of globalization, have rendered the strategic utilization of diverse social media platforms crucial for organizations in their marketing efforts.

Objective

1. To assess if social media marketing elements have an influence on consumer purchasing choices for dairy products amid the COVID-19 pandemic.
2. To identify the primary factors of social media marketing that impact online consumer purchasing decisions.

3.

4. Literature Review

The study by S. Mohanty et al. (2019) recommended the utilization of technology and e-tailing as influential factors that positively impact consumer buying behavior.

Brian Cugelman, MA (2010), conducted a survey to assess the efficacy of online interventions suitable for social marketing applications. This survey introduces a model that integrates behavior modification and psychological principles, utilized in designing online behavior modification interventions. The study employs a meta-analytic technique to evaluate the impact of these interventions on spontaneous behavior.

Gordon (2018) highlighted that approximately 40% of women prefer interacting with a brand through the brand's social media account. Facebook, Instagram, and Twitter are considered prominent social media platforms for influencer marketing due to their widespread popularity and extensive reach. Hegde (2016) discovered that electronic shopping through various online sites and mobile apps has become a routine activity for consumers worldwide.

Karan Joshi (2017) focused on the potential growth of online shopping, prompting a study on consumer attitudes towards online shopping.

Priyanka.P.V (2015) researched the use of social media to enhance customer loyalty through rapid and improved customer services. Emerging applications and social platforms facilitate better personalization in media and real-time location-based engagement.

Sisira Neti (2011) identified social media strategies and their role in terms of marketers' growth and profits. The study recognized the surge in social media phenomena by global companies, leveraging potential platforms for marketing in new advertising campaigns. The key finding emphasized the highly positive impact of blogging on branding and business growth.

Sneha Kanade (2015) conducted a survey to identify potential consumer preferences for online clothing shopping in Bangalore. The study explored the relationship between buying attitudes and behavioral intent in online shopping, considering various factors such as gender, age, education level, income, geographic location, previous online shopping experience, recognized benefits, consumer preferences, recognized retailer credibility, consumption, people's lifestyles, previous consumer e-commerce experiences, demographic factors like frequency of online shopping, and duration of daily internet use. The survey concluded that these factors did not significantly impact consumer preferences, which remained positively correlated with behavioral intent.

Tsai and Men (2013) observed that promoting a brand on social media is rapidly evolving into a new marketing method. Social media has empowered consumers, giving them more influence in shaping brands through online reviews.

5. Data And MethodologY

Research Design: The chosen research design for this study encompasses both exploratory and descriptive research methodologies.

Sample Selection: For primary data collection, a questionnaire was formulated, and responses were gathered through Google Forms. Secondary data were obtained from websites, various published papers, journals, reports, books, case studies, and other published materials.

Sampling Design: Stratified random sampling was employed as the methodology to select respondents based on details acquired during the exploratory study. The respondents selected were individuals aged between 18 to 40 years who actively use social media accounts.

Sample Size: A total of 184 respondents were selected for the study.

Sampling Area: A preliminary survey was conducted in the capital city, Bhubaneswar, Odisha, from March 2020 to April 2021. Collected responses were obtained through an online questionnaire distributed via Google Forms, with data gathered from 200 participants, and 184 of them were deemed appropriate for additional analysis.

Major Variables:

Gender, Expenditure, purchasing frequency, age, occupation, social media, Social Media Marketing, dairy product range.

From the secondary data and primary data collected during the exploratory study phase the major factors responsible for online consumer buying decision process are Encouragement, Price and Product Line. The details are shown in the conceptual framework developed by the researcher.

Hypothesis:
H1: Encouragement for using social media have positive impact on online consumer buyingbehavior.
H2: Pricing of products in social media marketing have positive impact on online consumerbuying behavior.
H3: Product Line in social media marketing have positive impact on online consumer buyingbehavior.
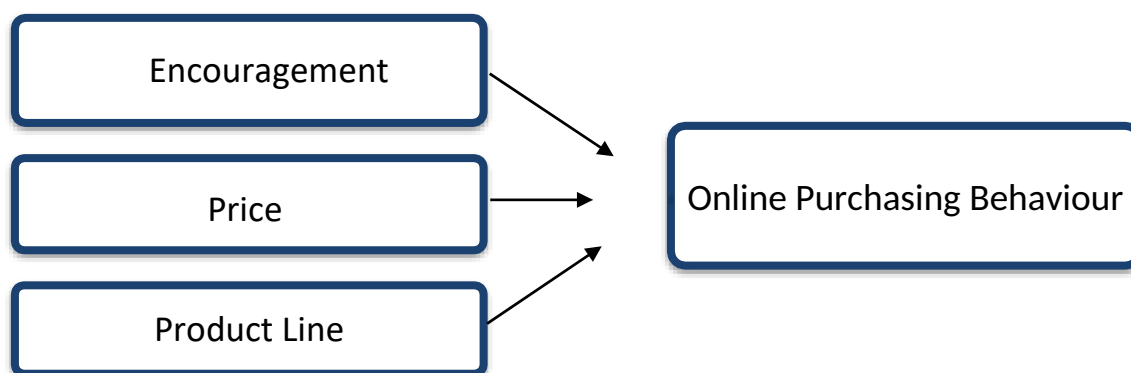
Fig.3: - Conceptual framework by the researcher

To assess the influence of social media factors on online consumer purchasing decisions, the researchers employed correlation and regression methods. The objective was to determine the nature of the relationship and draw inferences regarding the independent variables and the dependent variable. The study focused on a population aged between 14 to 40 years, actively using social media accounts. Following data editing, 184 respondents were considered valid for subsequent analysis and the inferences outlined below. The current study encompasses both descriptive and analytical approaches.

6. Empirical Results

Table-1.1: Analysis of Demographic Variables of the Respondents

S. No	Characteristic	Classification	Frequency	Percentage
1	District	Bhubaneswar	135	73.4%
		Cuttack	32	17.4%
		Others	17	9.2%
2	Gender	Male	91	49.5%
		Female	93	50.5%
3	Age of respondents	Below 20 years	46	25.0%
		21-30 Years	120	65.2%
		31 to 40 Years	18	9.8%

S. No	Characteristic	Distribution	Frequency	Percentage
4	Profession	Employed	130	70.7%
		Unemployed	40	21.7%
		Business	3	1.6%
		Student	11	6.0%
5	Product awareness	Online	154	83.7%
		Offline	30	16.3%
6	Social media	Yes	184	100%
	Account	No	0	0%

(Source: Survey data, 2021)

From table-1.1, it is inferred that the majority of the respondents are from Bhubaneswar City district 73.4% followed by Cuttack city 17.4% respondents and remaining are from another city 9.2% from Odisha. In the gender of respondents, the details are furnished majorly by 50.5% respondents are female, however male respondents are almost closer 49.5%. The age of the respondents furnishes that 65.2% are between 21 to 30 years of age. The occupation of the consumers as employed is 70.7%. Mostly preferred Online buying 83.7% and all respondents have social media handles.

Table 1.2: Descriptive Statistics

	Mean	Std. Deviation	Skewness	
	Statistic	Statistic	Statistic	Std. Error
Encouragement	1.11	.336	2.877	.179
Product Line	2.20	1.028	.197	.179
Price	2.59	1.229	-.007	.179
Consumer Buying	2.19	.555	.051	.179

(Source: Survey data, 2021)

Descriptive statistics were employed to characterize the overall characteristics of the research variables. The researcher aimed to discern the extent of responses provided by the sample for both independent and dependent variables. The table indicates that the mean values for all independent variables suggest respondents either agreed or strongly agreed with the posed questions. The mean for the dependent variable is nearly equivalent to the independent variable.

Table 2: Cross tabulation Age and SM

Age of Respondent * Social Media Preference Crosstabulation

		Social Media Preference			Total
Count		Face book	Instagram	You tube	
Age of	Below 20	39	7	0	46

Respondent	21 to 30	107	12	1	120
	31 to 40	18	0	0	18
Total		124	19	1	184

(Source: Survey data, 2021)

Descriptive statistics were calculated to portray the general characteristics of the research variables. The objective was to assess the level of responses from the sample for both independent and dependent variables. According to the presented table, the mean values for all independent variables suggest that respondents expressed agreement or strong agreement with the provided questions. The mean for the dependent variable closely aligns with that of the independent variable.

Table 3: Independent sample t-test DV and gender

	Gender of Respondent	N	Mean	Std. Deviation	td. ErrorMean	T	Sig.
Consumer	Male	91	2.20.600	.063	.183	.855
Buying	Female	93	2.18.510	.053	.183	

(Source: Survey data, 2021)

The independent sample t-test was performed to examine the significance of the difference between genders in online purchasing. The t-test outcome indicates that there is no significant association between gender and online consumer buying decisions (P>0.05).

Table 4: one way ANOVA test of DV and Occupation

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	2.871	3	.957	3.221	.024
Within Groups	53.472	180	.297		
Total	56.342	183			

(Source: Survey data, 2021)

Examining Table 4, a one-way ANOVA test was carried out to ascertain the impact of the variance in respondents' occupations on consumer buying decisions within the chosen sample. The obtained significance value is 0.024, which is below 0.05, indicating statistical significance.

Regression Analysis

Table 5 : Model Summary

Model	R	R Square	AdjustedR Square	l. Error of the Estimate
1	.255a	.065	.049	.541

(Source: Survey data, 2021)

Table 6: ANOVA

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	3.665	3	1.222	4.175	.007
	Residual	52.677	180	.293		
Total		56.342	183			

(Source: Survey data, 2021)

As indicated in Table 5, the adjusted R-square value for the regression is 0.049, signifying that 4.9% of the variability in consumer buying decisions is adequately accounted for by the independent variables (encouragement, price, and product line).

Examining Table 6, the corresponding significance value of the ANOVA test is 0.007, which falls below the 0.05 threshold. This implies that the established regression line is sufficiently robust to anticipate the variations in the dependent variable (online consumer buying decisions) based on changes in the independent variables (encouragement, price, and product lines).

Table 7: Coefficients

Model		nstandardised Coefficients		Standardised Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant.)	2.212	.165		13.411	.000
	Price	.085	.033	.189	2.574	.011
	Product Line	.034	.040	.064	.852	.395
	Encouragement	-.285	.121	-.173	-2.351	.020

(Source: Survey data, 2021)

As indicated in Table 07, the P values for Price and Encouragement are 0.011 and 0.020 (P0.05), suggesting that this variable is not a significant predictor affecting consumer buying decisions. Consequently, only two hypotheses from the study (H1 and H2) were validated, while the third hypothesis (H3) was not supported.

7. Conclusion And Recommendation

This study delves into the impact of social media marketing on the dairy industry in the city of Bhubaneswar, particularly focusing on online consumer buying behavior during the COVID-19 pandemic. The significance of this study lies in its potential to prompt manufacturers, distribution channels, intermediaries, retailers, and consumers within the dairy market to adapt their marketing strategies and comprehend prevailing market trends. Given the prolonged nature of the pandemic, understanding and leveraging social media marketing (SMM) activities becomes crucial for businesses looking to expand during challenging times.

The survey, administered to 184 respondents, revealed a predominant agreement among participants regarding online customer buying decisions, emphasizing the substantial impact of social media marketing on the dairy industry. The second challenge tackled in this study pertains to key factors in social media marketing influencing online consumer buying decisions. The research identifies three such factors—encouragement, price, and product line—based on prior research and an exploratory study conducted by the researcher.

The findings from the regression analysis imply a positive correlation between the independent factors of encouragement and price and consumers' online buying decisions through social media platforms. In contrast, there is no significant association between the product line and online consumer buying decisions.

In conclusion, marketers can effectively thrive and formulate strategies by leveraging social media marketing efforts to target consumers for a return on investment (ROI). As reports indicate a growing trend of online shopping and widespread use of social media accounts among consumers, conducting online sales with adherence to social distancing and safety norms during ongoing lockdowns and COVID restrictions is a viable approach. The research also underscores Facebook's prominence as the most widely used social media platform for acquiring dairy-related information, making it a valuable channel for successful online marketing campaigns.

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