RESEARCH PAPER

The Impact of Social Media on Pharmaceutical Marketing: A Study of Indian Youth

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Abstract

This paper discussed what pharmaceutical marketing using social media does to the Indian youths, and how the psychological mechanisms responsible affect the intention to purchase. As a quantitative cross-sectional research design, primary data were collected by administering 512 of questionnaires to respondents who were aged 18-30. The relationships between Social Media Exposure, Perceived Credibility, Trust, Attitude toward Pharmaceutical Marketing, and Purchase Intention had been tested using SEM. The results showed that the Social Media Exposure had a lot of effect on Attitude either directly or indirectly via Perceived Credibility and Trust. Attitude turned out to be the most powerful predictor of Purchase Intention meaning that positive perceptions of pharmaceutical marketing content determined the higher behavioural intention. The model has revealed good indices of fit and high levels of explanatory power with 56 percent variation in Purchase Intention. The research revealed the influence aspect of social media that creates the persuasive effect on the minds of the youths when making decisions regarding the pharmaceutical sector. The results established the value of credibility, transparency, and ethical communication in digital pharmaceutical advertising in the Indian environment.

Keywords: Social Media Marketing, Pharmaceutical Marketing, Indian Youth, SEM, Perceived Credibility, Trust, Attitude, Purchase Intention, Digital Health Communication, Consumer Behaviour

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Introduction

The fast growth of social media has changed the aspects of commercial messages generation, delivery, and consumption, and the pharmaceutical industry is not an exception. Social media gives pharmaceutical companies unparalleled chances to engage with and communicate to the audience directly, create awareness of the brand, and spread information about health on a larger scale (Syrkiewicz et al., 2016). Among Indian young people, who are not only the users of these platforms as the source of entertainment and socialisation, but also the target population since their connection to social media is quite high (Moorhead et al., 2013; Chen et al., 2021), health information and product cues are becoming more and more widespread and reliable. However, the pharmaceutical field is a very controlled and unethical sector; advertising might affect risk perception and benefit perception, health-seeking behaviour, and confuse between education and advertisement (Tyrawski and DeAndrea, 2015; Ventola, 2014). This paper explores the relationship between social media marketing by pharmaceutical players on attitude, awareness and intended behaviours concerning Indian youth with the empirical study placed in a wider context of scholarship on e-pharmamarketing, and consumer susceptibility and regulatory issues.

The social media and health-related research reveal several, yet opposing, points. The systematic reviews also report that social media is capable of increasing the levels of information access, patient engagement, and health literacy, as well as spreading misinformation and facilitating promotional efforts with insufficient risk communication (Moorhead et al., 2013; Chen et al., 2021). Empirical content

analyses, in turn, have reported the wide presence of corporations on such popular platforms and at the same time identified a lack of full products information as well as inconsistent compliance with promotional policies (Tyrawski and DeAndrea, 2015; Gyftopoulos et al., 2024). The studies that have been conducted experimentally have shown that affiliates disclosure and perceived control of user comments moderates consumer knowledge and behavioural intentions- which implies social cues on platforms (likes, comments, influencer endorsements) influence the decoding of pharmaceutical messages (DeAndrea & Vendemia, 2016).

Literature Review

The marketing of social media and use of direct to consumer advertising (DTCA) and promotions have been studied in the growing body of literature. Research findings indicate that social media make it possible to use targeting and interactive DTCA to increase consumer interest in particular products and services compared to traditional media but do not have to reflect the other side (adverse effects or clinical setting) (Fogel and Zhuk, 2019; Said et al., 2020). Overviews of pharmaceutical promotional work on social media stress the heterogeneous nature of these strategies (those targeting patient groups, targeting physicians, influencer partnerships) and highlight the importance of considering the impact on the capital and health population (significant changes in demand and other target activities to be regulated by authorities) (Mor et al., 2024; Giombi, 2023).

It is shown that social media marketing in the youth is responsive to all product categories, including health-related products and this evidences the similar markets in India. Research on Indian youth customers states that celebrity and influencer promotion, word of mouth, and website features (visual content, short videos) are the key factors influencing product attraction and impulsive purchasing behaviour (Sharma, 2022; TIJER research, 2023). Studies that particularly focus on the Indian pharmaceutical industry indicate that firms are starting to explore digital and social approaches, and are still in the process of implementation, although at varying degrees and with legal, cultural, and resource-related bottlenecks (Agrawal and Kaur, 2015; industry reviews 2018-2024). According to qualitative and survey data, the two key processes are of critical interest to the youth audiences: (1) social media legitimizes peer discourses about medicines and wellness products, and (2) youth commonly use social endorsement and micro-influender testimonials to judge the over-the-counter and wellness products (Kanchan, 2023; Selvaraj, 2023).

There are also ethical issues, as well as information quality issues, pointed out by scholars. Promotion posts can indicate no risk information that could potentially be given, have selective efficacy claims, or even be based on user-generated content that the firm might have indirect control over based on content analyses and reviews, which raises transparency concerns (Tyrawski and DeAndrea, 2015; Syrkiewicz-Switala and Romaniuk, 2016). Regulatory experts maintain that the currently applicable models (that are recently focused on addressing one-way mass media) simply cannot keep abreast with the promotion of interactive social media through algorithmic use (Ventola, 2014; Mor et al., 2024). Moreover, cross-cultural studies propose that the effect of trust and persuasion depends on the specifics of the audience, which is why it is necessary to examine the effects of marketing with reference to local cultures like in India (Fogel et al., 2019).

The existing gaps in methodology of literature are the driving force towards the present study. The literature reviews have revealed that there are more analyses of content and descriptive surveys, and fewer experimental or longitudinal studies that would contribute to the exposure-behavioural outcomes in youth (Moorhead et al., 2013; Chen et al., 2021). Besides, the global reviews detect the trends in pharmaceutical promotion in the social media, but empirical research concerning the behavior of young people in India is scarce and disjointed (Agrawal & Kaur, 2015; Sharma, 2022). A dedicated empirical study can enhance the knowledge regarding the role that social media marketing will play in forming the perceptions, intentions, and possible self-medication or help-seeking responses of young Indian people since the country has a distinctive regulatory context, an integrated media ecosystem, and online health information communities represent a central feature.

Overall, available studies prove that social media represents a potent means of pharmaceutical marketing and health communication, whose effects on information exposure, attitudes, and engagement seem to be demonstrated (Moorhead et al., 2013; Tyrawski and DeAndrea, 2015; DeAndrea and Vendemia, 2016). But the literature requires

contextualised, methodologically sound research on vulnerable and high-engagement audiences - most conspicuously youth in emerging digitalising markets such as India (Chen et al., 2021; Mor et al., 2024). The current research fill this gap by empirically investigating how social media marketing by pharmaceutical industry influences the awareness, attitude, and intended behaviour of the Indian youth and evaluating the moderating influence of the source of messages, disclosure as well as interactive social tips in mediation.

Objectives

The objective of the current research was to investigate how the pharmaceutical marketing by social media affects Indian youth. In particular, the study aimed to: (1) conduct an analysis of the degree to which the Indian youth were exposed to the content of pharmaceutical marketing on the major social media platforms; (2) measure the impact that the exposed content has on the awareness, perception, and attitude to the pharmaceutical brands and products; (3) test the effects of social media promotional strategy, including: influencer promotion, peer reviews, sponsored ads, and interactive engagement, on the purchase intention and health seeking behaviour; (4) analyse the mediating role of the following variables on behavioural intention: trust, perceived credibility The overall aim was to offer empirical data in terms of how digital pharmaceutical marketing operations affected the decision-making trends of the youths in the Indian setting.

Methodology

The research design used was a quantitative and cross-sectional study utilizing primary data gathered by means of a structured questionnaire on the respondents who were Indian youth with the age range of 18-30 years. There was a stratified random sampling method used so that there was representation in terms of gender, education levels and geographical areas (urban and semi-urban). The number of respondents in a sample and sample size 512 was found to be sufficient to provide statistical power in performing a multivariate analysis. The study involved social media exposure, perceived credibility, trust, attitude towards pharmaceutical marketing, and the purchase or use intention on a five-point Likert scale. Descriptive statistics were used to analyse data, test reliability (Cronbach alpha), do exploratory and confirmatory factor analysis, correlation analysis, and multiple regression and SEM were used to test the hypothesised variables relationships. A strict ethical consideration, which comprises informed consent, anonymity and voluntary participation, was observed during the research period.

Results and Discussion:

The analyses were performed through SEM in order to check the relationship existing between Social Media Exposure (SME), Perceived Credibility (PC), Trust (TR), Attitude toward Pharmaceutical Marketing (AT), and Purchase Intention (PI).

Table 1 Reliability and Convergent Validity

Construct	Items	Cronbach's Alpha	CR	AVE
Social Media Exposure (SME)	4	0.87	0.90	0.69
Perceived Credibility (PC)	4	0.84	0.88	0.65
Trust (TR)	3	0.82	0.86	0.67
Attitude (AT)	4	0.89	0.92	0.74
Purchase Intention (PI)	3	0.85	0.89	0.73

All Cronbach alpha values were more than 0.70 which means high internal consistency. The values of CR were more than 0.70 and AVE values were more than 0.50 that proved convergent validity.

Table 2 Discriminant Validity Matrix

Construct	SME	PC	TR	AT	PI
SME	**0.83**				
PC	0.58	**0.81**			
TR	0.52	0.66	**0.82**		
AT	0.61	0.63	0.69	**0.86**	
PI	0.49	0.57	0.64	0.72	**0.85**

The correlations of the square root of AVE of each construct with other constructs were lower than the square root itself, which also validated the discriminant validity.

Table 3 Model Fit Statistics

Fit Index	Obtained Value	Recommended Value
χ^2/df	2.34	< 3.00
CFI	0.95	≥ 0.90
TLI	0.94	≥ 0.90
RMSEA	0.051	≤ 0.08
SRMR	0.042	≤ 0.08

Table 3 revealed that the overall goodness of fit was good to the observed data using the SEM. The value of kh2/df of 2.34 was less than the recommended figure of three point zero indicating no objectionable model parsimony. The Comparative Fit Index (CFI =0.95) and the Tucker Lewis Index (TLI= 0.94) were above the cutoff of 0.90 which means good incremental fit. Additionally, RMSEA (0.051) and SRMR (0.042) were lesser than 0.08 which verified good absolute fit and model soundness.

Table 4 Structural Path Results

Hypothesis	Path	β	t-value	p-value	Result
H1	SME → AT	0.41	8.72	<0.001	Supported
H2	PC → TR	0.56	11.34	<0.001	Supported
H3	TR → AT	0.38	7.91	<0.001	Supported
H4	AT → PI	0.62	13.28	<0.001	Supported
H5	SME → PI	0.18	3.94	0.002	Supported

The findings have shown that Attitude toward Pharmaceutical Marketing was changed by Social Media Exposure significantly (b = 0.41, p < 0.001), showing that the more young people were exposed, the greater the perceptions. There was a strong positive influence of Perceived Credibility on Trust (b = 0.56, p = <0.001) which showed that believable material had a great influence on the development of trust.

Being a mediating variable, Trust had a significant effect on Attitude (b = 0.38, p < 0.001). Purchase Intention was most directly influenced by Attitude (b = 0.62, p < 0.001), which proved that positive attitudes converted to their increased potential to consider or use the product.

Furthermore, the direct relationship between Social Media Exposure and Purchase Intention was less yet significant (b = 0.18, p = 0.002), which indicates a partial mediation via Attitude.

Table 5 Coefficient of Determination

Endogenous Variable	R^2
Trust	0.31
Attitude	0.48
Purchase Intention	0.56

The model accounted 31, 48 and 56 percent of the variance in Trust Attitude and Purchase Intention respectively, which is a moderate to strong explanatory power.

The findings of the SEM testified to the sensitivity of the social media marketing of pharmaceuticals in terms of their impact on the attitudes of the Indian youth and their purchase intentions. Credibility and trust perceived were important mediators. The most compelling predictor of behavioural intention proved to be attitude which underscores the role of persuasive digital approach strategies in the pharmaceutical industry.

The results empirically proved that the social media marketing did not only have an informational impact on but also a behavioural impact to the Indian youth.

Discussion

The current research explored the effects of pharmaceutical marketing via social media on its Indian young population through SEM. The results were used to empirically validate the postulated relationships and to give significant theoretical and managerial implications.

To begin with, Social Media Exposure had a great impact on Attitude toward Pharmaceutical Marketing. This is an indication that youth perceptions were positively influenced with frequent exposure to pharmaceutical content, i.e.: sponsored advertisements, influencer endorsements, educational posts, and peer reviews. Since digital penetration among the youth of India is high, a repetitive exposure may have contributed to making the advertisements familiar and minimizing the psychological barrier against pharmaceutical advertisements. This is in line with the persuasion and exposure theories, which assume that the repetitive digital contact makes the message more acceptable and cognitively accessible.

Second, Perceived Credibility also proved to be a major predictor of Trust. When there was authentic, transparent, and professionally presented information, the youth respondents had a higher probability of trusting pharmaceutical brands. This observation is especially applicable in the pharmaceutical sector, risk perception, and safety issues are intelligible. It shows credibility cues like verifying information, professional recommendations, scientific source and regulatory statements have a decisive role in the formation of trust.

Third, it is evident that Trust had substantial mediating power in the Attitude. Youth felt that they would trust pharmaceutical content, which led them to have a positive attitude to promoted products. This brings the point out that marketing by the pharmaceutical companies cannot depend on visibility but rather relational credibility and ethical communication.

Fourth, Attitude was the one that directly influenced Purchase Intention the most. The massive path coefficient(b = 0.62) meant the positive attitudes were

transformed into high probability of considering or planning to use pharmaceutical products. This supports the attitudinal-behavioural intention model that has a substantial support in the studies on consumer behaviour.

Besides, there was less, but significant direct impact of Social Media Exposure on Purchase Intention, which means that the effect is indirect, partially mediated by Attitude. This indicates that exposure may cause direct stimulations but in a greater effect, it may be doing so through psychological constructs including credibility, trust, and the establishment of attitude.

The model was indicated to have moderate to strong explanatory power (R 2 = 56% Purchase Intention) meaning that the variables of social media marketing had a significant meaning to the behavioural results among the Indian youth. Still, the findings also suggest the regulatory and ethical considerations. The influence that social media pharmaceutical advertising has is persuasive, and there should be transparent disclosures, balanced communication about the risks, and responsible engagement on the internet in order to avoid misinformation or ensuing self-medicating behaviours.

On managerial fronts, the pharmaceutical firms intending to market their products to the youth are advised to focus on credibility-based content plans, open communication, and mechanisms of trust-building over vigorous marketing strategies. To create lasting brand equity, the influencer partnerships should be real and medically valid.

Generally, the research asserted that social media was an effective mechanism of behavioural influence agent in pharmaceutical marketing among the Indian youth group. Exposure, credibility, trust, and attitude interacted with each other in a way that greatly influenced purchase intentions and hence the strategic significance of digital platforms in modern pharmaceutical promotion.

Conclusion

The research concluded that pharmaceutical marketing through social media produced much impact on the attitude and purchase intention of Indian youth. The results of the SEM proved that the Social Media Exposure had a positive influence on Attitude both directly and indirectly via Credibility and Trust. Attitude turned out to be the best predictor of Purchase Intention meaning that the psychological assessment of the contents of pharmaceutical was critical in behavioural outcomes. The model had a significant explanatory power, indicating that strategies of digital engagement had a significant influence on the way youths make decisions. In general, the results confirmed that a social media was not only a source of information but also was a sales voice in the pharmaceutical industry of India.

Recommendations

Pharmaceutical businesses are encouraged to focus on credibility-based and ethically sound digital advertising approaches to continue winning the confidence of the youth population. Authenticity can be promoted through the transparent reporting of sponsored content, the provision of balanced risk-benefit information and partnering with qualified healthcare professionals. Authorities should improve on surveillance channels to enforce the rules on adhering to the standards of advertisement in the social media. Also, online health literacy campaigns are to be advanced to make young people critically appraise pharmaceutical literature on the internet. Instead of promoting aggressively, the firms are recommended to embrace data-driven engagement models that place more emphasis on the educational merit than commercial drive, thus striking a balance between commercial goals and the obligation to stay responsible to the community by taking care of their health.

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