The Impact of Digital Marketing on Customer Engagement and Loyalty in the Indian Banking Sector: A Case Study of Axis Bank

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Abstract--- **The advent of digital marketing has fundamentally changed the way customers interact with and display loyalty towards banking institutions, providing advanced tools aimed at improving customer experiences and fostering long-lasting relationships. This study explores the impact of digital marketing on both customer engagement and loyalty, specifically focusing on the digital platforms of Axis Bank. The study considers four fundamental elements—Design, Credibility, Trustworthiness, and E-Word-of-Mouth (E-WOM)—to determine their impact on customer behaviors (Abdul et.al., 2015). A quantitative methodology has been used in which structured questionnaires were provided to gather data from 126 active customers of Axis Bank via a convenience sampling technique. Data has been analyzed through EFA, CFA, and path analysis to examine the above hypotheses. Findings indicate that Credibility, Trustworthiness, and E-WOM have a significant positive impact on customer engagement and loyalty, while Design bore no influence; customers accord more value to functional dependability than to aesthetic appeal (Yoo et.al., 2014). Thereby, it calls banks to focus on service reliability, secure digital transactions, and encouraging positive word-of-mouth to build loyalty. The originality of this paper lies in its focused examination of digital marketing's influence in the Indian banking context using a multidimensional lens that combines engagement and loyalty. Unlike prior studies, it disaggregates the digital experience into specific constructs, offering practical clarity for banks to refine their strategies. Offering practical insights, this research enhances strategies that banks may implement to bolster customer relationships via efficient digital marketing efforts.**

Keywords: **Customer Engagement, Customer Satisfaction, Customer Loyalty, Digital Marketing**

I. INTRODUCTION

It is important for any firm to understand things that attract and engage them especially as it concerns marketing issues. Today, digital marketing has become one of the strongest tools for catching fish, i.e., customers in this era. It includes using marketing strategies with information technology towards attracting the customers (Yasmin et al., 2015). However, marketing itself is crucial for making many companies and organizations sustainable and profitable. It has great influence on consumers' buying decisions across wide range of product markets. Another way through which marketing offers a competitive edge is on consumer retention inside the organization.

During the age of globalization, achieving a competitive advantage entail deploying and integrating with technological advancements. In the past ten years, digital marketing has witnessed a tremendous increase, building trust between markets and customers (Ismail et al., 2024). Shopping anytime and anywhere instead of conventional in-store selection becomes more desired as technology brings a system under which customers buy goods at their pleasure and at most convenient place. In the last few decades, significant shifts have been experienced in the organization arena. Previously, importance was accorded to production concept in selling concept but now marketing concept contributes equally in adding up corporate profits.

The marketing plays a key role in facilitating ease of building loyalty after client engagement. Consumers will visit a company's site as an interaction method if they keep seeing advertisements posted all over social media pages. Apart from marketing, platforms such as Twitter, Facebook, Instagram, and YouTube provide a forum for customers acting as advocates and reinforcing loyalty through word-of-mouth communication. Such sites provide opportunities for blogging, photos sharing and statuses posting allowing one to present their thoughts (Sweeneya & Swait, 2008; Thakur, 2019).

Mahalaxmi and Ranjith (2016) assert that digital marketing involves different platforms like social media, websites, multimedia advertisement, internet search engine advertising, e-marketing, interactive marketing through quiz, games, and mobile advertising that targets their potential customers. Marketing is of great importance also in the banking sector just as most other industries (Aswathy, 2025). Service marketing implies provision of

the banking industry with information on how customers are treated each time they visit their banks. Therefore, such trends are seen to portray negative implications on digital marketing in the banking sector (Laghareh et al., 2015). Bank selling is only a form of bank marketing that may influence how consumers view the image and persona of the bank (Once, 2000).

The problem is significant in the current technological landscape as digital marketing has become a central pillar in shaping customer perceptions and fostering brand loyalty, especially in highly competitive sectors like banking. With customers increasingly relying on online platforms for financial transactions, their expectations for trust, credibility, and seamless experiences have risen dramatically (Gulati, 2024; López García et al., 2019). Understanding the specific digital factors that drive engagement and loyalty is critical for banks to retain customers and stay ahead in a rapidly evolving digital economy (Chauhan et al., 2022; Yasmin et al., 2015).

Research Objectives

The specific research objectives include:

- Analyze the utilization of digital marketing in generating customer engagement for banks.

- Explore the influence of digital marketing credibility on customer loyalty and engagement.

- Examine how the trustworthiness of a large social media user base impacts customer engagement.

- Determine the reliability of digital marketing channels for customers within the banking industry.

Hypotheses

The following hypotheses is being tested for further gaining insight on attaining the objectives

H_{0a}: Design has a significant impact on consumer engagement and loyalty.

H_{0b}: Credibility has a significant impact on consumer engagement and loyalty

H_{0c}: trustworthiness has a significant impact on consumer engagement and loyalty.

H_{0d}: E-Word-of-Mouth has a significant impact on consumer engagement and loyalty.

II. LITERATURE REVIEW

According to Chaffey and Smith (2013), digital marketing (DM) is the use of technological instruments in marketing activities to help increase consumer understanding through gratification of their needs. However, while traditional advertisement models, such as print, television, and radio, remain in operation and performing well, it is only digital marketing that affords an instant interaction with customers who want to interact with digital media on devices like smartphones or tablets (Dodda, 2023; Garg et.al., 2020). In simple terms, digital marketing means e-marketing: the

marketing messages communicated with the customers through digital or online advertisements. E-commerce was said to be born in the 1990s but in the early twenty-first century is accepted as the era of social commerce (Fader & Winer, 2012). Through Simon, who is the CMO of Bai Brands, the availability and speed in information acquisition, purchasing, and even the connection to the community is easily facilitated through digital technology (DMA, 2024).

The visual and structural characteristics of digital platforms are crucial for user engagement. Montoya-Weiss et al. (2003) argue that graphic design significantly shapes users' initial perceptions of a website, with elements such as image utilization, animations, and color representation being pivotal. In a comparable vein, Kang and Corbitt (2001) highlighted that design features, such as font size and the quantity of text, influence the platform's overall usability. The design of structure greatly contributes to the logical organization of pages, which allows for straightforward navigation and browsing (Demangeot & Broderick, 2010), thus ensuring that users experience a fluid experience.

Trust is still a powerful tool in shaping consumer relationships. It is stated trust as the belief that a seller's promises are reliable. Present relationship marketing models and principles still heavily depend on the factor of trust (Vivek et.al., 2012). The factors that add to trusting a brand are security, privacy, word-of-mouth communication, and quality of the online experience. Most recently, Ahmed et al. (2024) highlighted the fact that advanced cybersecurity protocols build trust in digital platforms such as banking by providing data privacy (Buzzboard.ai, 2024; Udayakumar et al., 2023). Credibility complements trust by shaping how customers evaluate information accuracy. Eisend, (2006) considered credibility to be a multidimensional construct. Indicators of such are sender expertise and profile scrutiny as proposed by Ohanian, (1990). According to Kyung et al. (2010), "credibility involves two main components: competence and trustworthiness." These elements determine consumers' reliance on digital platforms (Yaremko et al., 2024). In recent studies, Gupta and Sharma (2024) indicate that influencer credibility on social media platforms greatly elevates customer engagement among young consumers. Lee & Chen, (2024) and Luo et al., (2013) further determined that AI-generated content promotes credibility perceptions because it ensures tailored messages that are in congruence with personal expectations (Önce, 2000).

E-WOM is a transformational element of digital marketing. It enables customers to express experiences that shape purchasing decisions and levels of trust through social media (Bismo et al., 2019). According to Yusuf et al., (2018), positive word-of-mouth communication is the leading source of brand loyalty. Rao & Patel, (2024) concluded that E-WOM greatly influences customer purchase intentions in developing economies that have an ever-growing digital marketplace (Dev & Patel, 2025). In conclusion, the effectiveness of digital marketing depends on trust, credibility, design, and E-WOM. Recent studies confirm that security protocols, personalized communication, and user-generated recommendations

continue to strengthen consumer engagement and loyalty in a digital-first world.

Although previous studies have thoroughly researched digital marketing in the banking sector, the majority of these articles have examined either customer satisfaction or adopting intentions in general, and these studies have not examined the different facets of 'digital marketing' (Khan et.al., 2016; Prasad & Aryasri, 2018; Shamsudin et.al., 2020). In spite of studies by Mehta, (2020) demonstrating related themes focused mainly on digital banking services overall, they did not examine specific variables like design or E-WOM specifically. This study takes a deeper approach by looking at the impact of four separate digital marketing constructs—Design, Credibility, Trustworthiness, and E-WOM—on customer engagement and loyalty. This will lead to more in-depth findings of factors that drive consumer behavior in a digital space. Additionally, most of the research in this area relied on descriptive statistics or regression analysis; this study is unique in its methodological approach through EFA, CFA, and path analysis, which provides a stronger framework for analysis.

III. RESEARCH METHODOLOGY

In this study, quantitative research method is applied along with descriptive statistics that are used for describing the characteristics of independent and dependent variables. The linear regression tests are adopted to examine the relationships between the variables as well as to prove or disprove hypotheses. The company will obtain its data by using primary and secondary research materials. The first source is based on self-completed questionnaires that use open, close and "direct" questions with a 5 point Likert scale. The supplement also adds accuracy to the study using secondary sources. However, the research examines Axis Bank, which is located at the corporate office in Kathmandu, India, which has about one hundred fifty customers participating in social media marketing.

Specifically, convenience sampling which is a non-probability sampling is used to target the sample effectively. From the 150 distributed questionnaires, 126 (84%) considered valid for further analysis. Axis bank was the study's unit of analysis consisting of individual and an organisation. This analysis will examine relationships that exist between the organisation, and its customers. Data analysis is performed using statistical tools. Exploratory factor analysis, as well as confirmatory factor analysis is used to test convergent and discriminant validity as part of the study. Furthermore, path analysis is applied to establish structural relationships. They may present their findings using these analytical approaches.

To ensure the reliability and validity of the questionnaire, the researcher conducted a small pilot survey involving some bank customers. This pilot aimed to identify any inaccuracies, assess response time, clarify any uncertainties, and address challenges related to language comprehension. The instrument's reliability was thus confirmed. Content validity, measuring the extent to which data represents a specific domain or concept, was evaluated in the study. Expert opinions in the subject matter were sought to assess the validity of the research techniques.

This feedback enabled to redesign and modify the study tool, enhancing its overall validity.

IV. DATA ANALYSIS

Exploratory Factor Analysis

Exploratory Factor Analysis (EFA) is employed to determine the number of components and the underlying factor structure, as outlined by Suhr (2006). The EFA, conducted with data from 101 respondents, utilized principal component analysis as the extraction technique and Varimax rotation as the rotation method. Eigen values greater than 1 were employed as criteria for EFA.

TABLE I KMO AND BARTLETT'S TEST

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.851
Bartlett's Test of Sphericity	Approx. Chi-Square	1478.000
	Df	120
	Sig.	.000

Source: Primary Data

Correlational measures were sufficient for sampling adequacy since KMO values ranged between 0.8 and above – considered excellent (Field, A., 2005). The KMO in Table I is 0.851. A measure of construct validity is that it can account for sixty percent of the explained variance in order to be appropriate for component analysis. We came out with a figure of 87.14% of the total variation as being accounted for and extractable five factors. This is demonstrated in the scree plot comprising the variations associated with each principal component wherein all have contributed collectively 87.14% toward the variation overall.

A scree plot, showing the factor analysis of the construct based on its five factors, is presented in Fig. 1 (Gour et al., 2017).
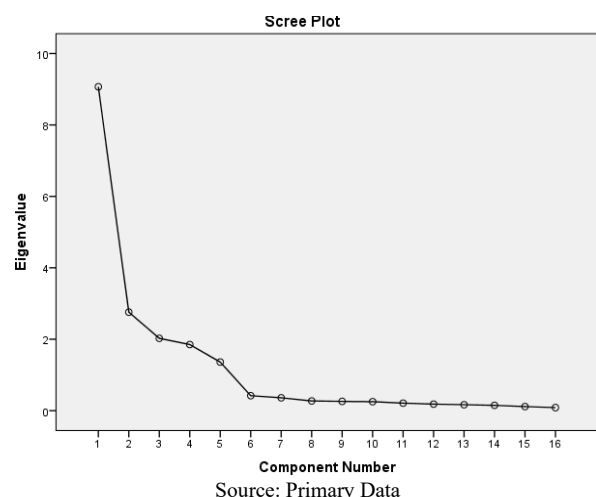

Source: Primary Data

Fig. 1 Scree Plot

Here, rotation is aimed at minimizing low item loading and maximizing high item loading, thus improving the intelligibility and precision of interpretation. Two commonly used rotation techniques are orthogonal rotation which yields uncorrelated factors and oblique rotation where correlated factors are produced.

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The primary aim of a rotation is to simplify and clarify the maximum information obtained from data. After performing factor analysis on the items, all items were noted to have primary loadings above 0.70 for each factor; indicating that collectively, the factors accounted for the highest proportion of responses demonstrating comprehensive representation of the construct with no single item dominating the entire analysis.
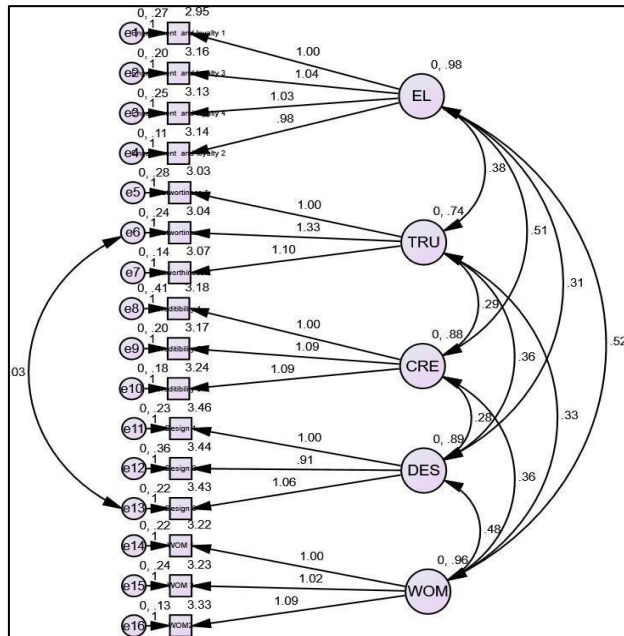

Fig. 2 CFA Diagram

Source: Primary Data

According to Fig 2, all five conceptually defined dimensions of digital marketing have reliable predictive power with respect to engagement and loyalty at Axis Bank. All item loadings on their respective latent factors exceeded the .70 threshold, establishing acceptable measurement validity for Engagement and Loyalty (EL), Trustworthiness (TRU), Credibility (CRE), Design (DES) and Electronic Word-of-Mouth (WOM). In terms of the structural model, e-WOM had the greatest total effect on engagement and loyalty (β =.52), followed by trustworthiness (β = .38), design quality (β = .36), and credibility (β = .31). These results suggest that while complimentary and accurate content presented in visually pleasing interfaces are meaningful to some extent, the most powerful driver for maintaining a customer commitment to the bank in the Indian context is peer-based online recommendations.

TABLE II CMIN TABLE OF ANALYSIS

Model	CMIN	DF	P	CMIN/DF
Default model	96.829	93	.372	1.041
Saturated model	.000	0		
Independence model	1575.133	120	.000	13.126

Source: Primary Data

Table II, shows the p < 0.005, CMIN < 3 and DF < 0, showing that all the results obtained from the analysis were positive in the performed analysis (Hooper et.al., 2008).

TABLE III RMR, GFI TABLE OF ANALYSIS

Model	RMR	GFI	AGFI	PGFI
Default model	.045	.900	.855	.622
Saturated model	.000	1.000		
Independence model	.523	.239	.138	.211

Source: Primary Data

The goodness of fit is 0.900 also AGFI is 0.855 and PGFI is 0.622 and RMR is 0.045 which is near to 1.000 which shows the good fit of the model.

Path Analysis and Hypothesis Testing

Path analysis is an extension of the normal oral interpretation of statistics rather than the actual data. Any important statistic taken by themselves may often be easily interpreted plausibly. The aim of the route analysis is to assess the consistency of the suggested series of interpretations.
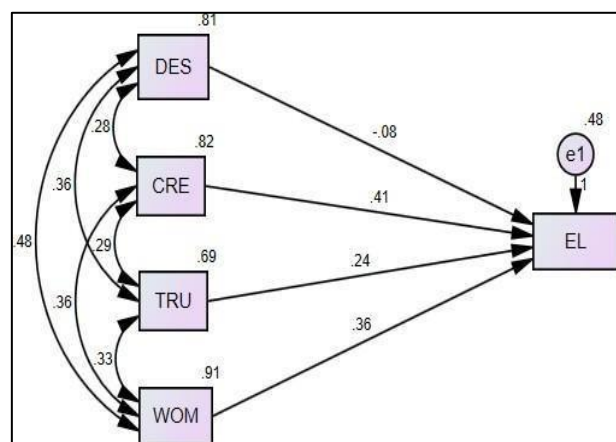

Fig. 3 Path Analysis

Source: Primary Data

The structural model depicted in fig 3 represents the relationship of four digital-marketing drivers and overall customer engagement and loyalty (EL) in Axis Bank. The standardized path coefficients reveal that credibility (CRE → EL, β = 0.41) had the strongest positive effect on engagement followed closely by electronic word-of-mouth (WOM → EL, β = 0.36) and trustworthiness (TRU → EL, β = 0.24). Design quality (DES → EL, β = –0.08) had a small and negative effect on overall engagement and loyalty which indicates that simply being appealing and usable will not foster loyalty. The correlations between the constructs, which are represented by double-headed arrows (rs = 0.28–0.48), were observed as moderate correlations, which supports the interpretation that they overlap in meaning to some degree, but each has enough distinction to be included in the model as separate constructs. The residual variance in customer engagement and loyalty (e_1 = 0.48), indicates that the model accounted for about 52% of the variance. In all, even though design had very little role in its direct involvement, the credibility of the content and peer-recommendations (WOM) are the most powerful influences for driving engagement and loyalty in the Indian banking sector.

TABLE IV HYPOTHESIS TESTING

Path	Hypo thesis	Estimate s (β)	p-values	C.R.(t-value)	Remarks
DES → EL	H1	-.083	.400	-.842	Not-Supported
CRE → EL	H2	.405	.000	4.642	Supported
TRU → EL	H3	.242	.015	2.436	Supported
E-WOM → EL	H4	.364	.000	3.915	Supported

Source: Primary Data

The result of the analysis, the path model and t-values of the relationship among the factors are shown in Table IV. The model fit obtained can be considered a good fit as the values are more than the desired to be significant. The table sums up the structural model's characteristics (Estimates (β) and hypotheses result). The significance threshold (α) is set-to 0.05. The outcome suggests that all the hypothesis except for one is supported in this study.

V. RESULTS AND DISCUSSION

It examined the impacts of digital marketing factors—namely, Design, Credibility, Trustworthiness, and E-WOM in the context of engagement and customer loyalty as it related to digital platforms for Axis Bank. Accordingly, it can be inferred from the analysis that none of these parameters are relevant to customer engagement or loyalty: that design is irrelevant and merely a question of aesthetics, and therefore customers will not be paying attention to it and/or being distracted by it and do not care either way. On the other hand, Credibility has become a significant parameter affecting customer engagement and loyalty. Customers trust credible and trustworthy information, while engaging with Axis Bank's digital services, which include Internet and mobile banking.

Past positive experiences with a bank's digital channels contribute to the level of confidence a customer has, and the customer also feels more satisfied and loyal while engaging with the bank's services via digital channels, such as mobile applications or websites. For example, Axis Bank's "Safe Banking" campaigns through mobile apps and email have enhanced digital credibility, with enhanced digital credibility leading to more positive use of apps, and subsequently better levels of engagement. The implication of this finding expresses the significant role which transparent and reliable digital communication plays in enhancing customer trust, which is key to the service industry offering banking services.

Trustworthiness was crucial and contemplated safe and open communication. If customers are able to feel that their data and transaction are secured, customers will be more inclined to be engaged. Therefore, security efforts should be strong and clear assurances of privacy should be conveyed. A real-life example can be observed with Axis Bank's mobile app utilizing two-factor authentication and biometric login to encourage user trust and repeat use. The importance here is that security and transparency in today's context are not just enhancements, but key expectancies which produce loyal digital banking customers continuously.

Furthermore, E-Word-of-Mouth (E-WOM) has heavily influenced customer engagement and loyalty, identifying the utility of recommendations and customer advocacy in the digital world. When customers receive positive word-of-mouth recommendations and experiences from peers or through missed word-of-mouth social posts, they are likely to trust and engage with that organisation bank or other services. For example, social testimonials seen on Google Reviews or YouTube unboxing of banking experiences have been great for attracting younger, and more technologically-advanced customers to Axis Bank's digital channels. This highlights the power of peer influence in digital contexts, suggesting that banks can achieve stronger engagement through cultivating and amplifying authentic customer voices online.

It was determined that "Design" does not have a visible impact on customer engagement outcomes, while reputation, trustworthiness, and E-WOM of Axis Bank contribute significantly to customer loyalty. Therefore, it prompts the bank to seek further improvements while addressing the bank's total visual and functional aesthetics for its digital platforms this is in line with customer expectations. These findings are particularly important as they indicate where banks should prioritize their investment towards what really counts dependability, digital trust, and genuine customer relationships—rather than excessive emphasis on surface design features.

VI. SUMMARY

This study was done among the 101 present customers of Axis Bank who are exposed to the digital marketing plans of the bank. a systematic questionnaire was utilized to obtain the necessary data for analysis, and it was individually delivered to the respondents. The questionnaire constituted 16 items which included the impact of Design, Credibility, trustworthiness and E-WOM on customer engagement and loyalty of Axis Bank. The demographic study was done on the data provided by the respondents whereas Path analysis was used to evaluate the hypothesis created in this study. Along with this validity and reliability test was performed in the variables and factor analysis was done through EFA and CFA.

In addition, the obtained data was broken down by gender, educational background and period of being a customer. When comparing male and female ratings, the average male rating was higher than the female rating. This resulted in males seeing digital marketing as having a greater influence than that of females. When the data was analyzed on the period of being customers of the respondents the average of respondents being customers for one year was higher followed by two, three and above four years respectively.

The factor that influenced the most according to the conclusion of data analysis done was credibility followed by trustworthiness and E-WOM, however, the influence of Design was not significant to customer engagement and loyalty of Axis bank. The path analysis was done in Amos model for testing the hypothesis presented in this study.

Recommendation and Future Implications

Despite the fact that the findings of this study were satisfactory, only few hypotheses were employed to assess the influence of digital marketing on customer engagement and loyalty of the bank. In the future, a more complete investigation employing a variety of alternative possibilities in other cultural settings might be investigated. A bigger sample size and additional variety might be used to evaluate and forecast the influence of digital marketing in banks. In addition, different banks evoke varied user motives for involvement, resulting in varying levels of engagement with the material, which was not examined in this study. Understanding the intentions of various banks is crucial and necessitates more research. It is also uncertain if individuals enjoy what they enjoy or what others enjoy.

Furthermore, because algorithms are limited, future research should include data from other social networking sites. The creation of measurable indicators that allow for the monitoring and evaluation of engagement behaviors on social networking sites is critical for the formulation of organizational strategies for the bank. It is also recommended that future researchers use additional data gathering methods while doing similar studies. Furthermore, investigation should perform adequate independent variable selection, as done in this study. Furthermore, because the study was limited in scope and length, a larger study done over a longer period of time might yield more accurate results.

REFERENCES

[1] Abdul, R., Sulaiman, Z., Zaidin, T., & Norzaidahwati. (2015). E-wom review adoption and green purchase intention: the application of source credibility theory (sct). *Advanced Science Letters*, Volume X.

[2] Ahmed, S., Khan, R., & Das, P. (2024). The role of cybersecurity in building customer trust in digital banking platforms. *Journal of Marketing Insights*, 32(1), 45-58.

[3] Aswathy, S. (2024). Bibliometric Analysis of Sustainability in Business Management Policies Using Artificial Intelligence. *Global Perspectives in Management*, 2(1), 44-54.

[4] Bismo, A., & Putra, S. &. (2019). Application of digital marketing (social media and email marketing) and its impact on customer engagement in purchase intention: a case study at pt. soltius indonesia. *International Conference on Information Management and Technology*, 109-114.

[5] Buzzboard.ai. (2024). Best ways to build credibility in digital marketing: The ultimate guide to enhancing client trust online.

[6] Chaffey, D., & Smith, P. R. (2013). *eMarketing eXcellence: Planning and optimizing your digital marketing*. Routledge.

[7] Chauhan, A., Akhtar, N., & Gupta, S. (2022). The role of digital marketing in fostering customer loyalty in the banking sector. *International Journal of Marketing Studies.*

[8] Demangeot, C., & Broderick, A. (2010). Consumer perceptions of online shopping environments: a gestalt approach. *Psychology and Marketing*, 117-140.

[9] Dev, A., & Patel, S. (2025). A Multi-Dimensional Framework for Innovation-Driven Economic Growth in Emerging Markets. *International Academic Journal of Innovative Research*, 12(1), 14–18. https://doi.org/10.71086/IAJIR/V12I1/IAJIR1203

[10] DMA. (2024). Customer Engagement: Future Trends Report 2024.

[11] Dodda, R. T. (2023). Five customer engagement trends influencing 2023 marketing strategies: Hyper-personalization as next-level engagement opportunity.

[12] Eisend, M. (2006). Source credibility dimensions in marketing communication–A generalized solution. *Journal of Empirical Generalisations in Marketing Science*, 10(2), 1-33.

[13] Fader, P. S., & Winer, R. S. (2012). Introduction to the special issue on the emergence and impact of user-generated content. *Marketing Science*, 369-371.

[14] Garg, P., Gupta, B., Dzever, S., Sivarajah, U., & Kumar, V. (2020). Examining the relationship between social media analytics practices and business performance in the Indian retail and it industries: the mediation role of customer engagement. *International Journal of Information Management*.

[15] Gulati, T. (2024). Impact of Digital Marketing Strategies on Customer Retention: A Comparative Study of HDFC Bank in India and Nordea Bank in Finland. *Seinäjoki University of Applied Sciences.*

[16] Gupta, A., & Sharma, P. (2024). Influencer credibility and its impact on customer engagement: Evidence from social media platforms. *International Journal of Digital Marketing Research*, 18(2), 112-128.

[17] Gupta, R., & Sharma, P. (2024). The role of influencer credibility in enhancing customer engagement on social media platforms: Evidence from Gen Z consumers.

[18] Hooper, D., Coughlan, J., & Mullen, M. J. (2008). Structural equation modelling: Guidelines for determining model fit. 2. *Electronic Journal on Business Research Methods*. *International Encyclopedia of Education*, 190-196.

[19] Ismail, W. S., Ghareeb, M. M., &Youssry, H. (2024). Enhancing Customer Experience through Sentiment Analysis and Natural Language Processing in E-commerce. *Journal of Wireless Mobile Networks, Ubiquitous Computing, and Dependable Applications,* 15(3), 60-72. https://doi.org/10.58346/JOWUA.2024.I3.005

[20] Kang, K. S., & Corbitt, B. (2002). Effectiveness of Graphical Components in Web Site E-commerce Application–A Cultural Perspective. *The Electronic Journal of Information Systems in Developing Countries*, 7(1), 1-6.

[21] Khan, I., Rahman, Z., & Fatma, M. (2016). The role of customer brand engagement and brand experience in online banking. *International Journal of Bank Marketing*, 0265-2323.

[22] Kyung, H., Kwon, O., & Sung, Y. (2010). The effects of spokes-characters' personalities of food products on source credibility. *Journal of Food Products Marketing*, 65-78.

[23] Laghareh, F. S., Mirabedini, S. J., & Abadi, A. H. (2015). Provide a method for validation of bank customers using data mining techniques. *International Academic Journal of Science and Engineering*, 2(2), 83–94.

[24] Lee J., & Chen K. (2024). AI-generated content promotes credibility perceptions among online users. *Journal of Consumer Behavior.*

[25] Lee, J., & Chen, M. (2024). Enhancing credibility through AI-generated personalized content in digital marketing. *Journal of Interactive Marketing*, 42(1), 78-95.

[26] López García, J., et al. (2019). Digital marketing activities and their impact on customer retention. *Journal of Marketing Research.*

[27] Luo, C., Luo, X. R., Schatzberg, L., & Sia, C. L. (2013). Impact of informational factors on online recommendation credibility: The moderating role of source credibility. *Decision Support Systems*, 56, 92-102.

[28] Mahalaxmi, K. R., & Ranjith, P. (2016). A study on impact of digital marketing in customer purchase decision in Trichy. *International Journal for Innovative Research in Science & Technology*, 2(10), 332-338.

[29] Maydeu-Olivares, A., & Garcia-Forero, C. (2010). Goodness-of-fit testing. *International encyclopedia of education*, 7(1), 190-196.

[30] Mehta, J. (2020). The Future of the Banking Industry and Management Impact. *Paradigm Shift in Management Philosophy: Future Challenges in Global Organizations*, 197-211.

[31] Montoya-Weiss, M. M., Voss, G. B., & Grewal, D. (2003). Determinants of online channel use and overall satisfaction with a relational, multichannel service provider. *Journal of the academy of marketing Science*, 31(4), 448-458.

[32] Ohanian, R. (1990). Construction and validation of a scale to measure celebrity endorsers' perceived expertise, trustworthiness, and attractiveness. *Journal of advertising*, 19(3), 39-52.

[33] Önce, G. (2000, June). Service marketing in banking sector and recent perceptions in marketing thoughts of services. In *First International Joint Symposium on Business Administration Challenges for business administrators in the New Millennium* (pp. 1-3).

[34] Rao J., Patel S. (2024) E-WOM's impact on purchase intentions in developing economies. *International Journal of Marketing Studies.*

[35] Rao, S., & Patel, N. (2024). The influence of electronic word-of-mouth (E-WOM) on customer purchase intentions: A study in emerging economies. *Asia-Pacific Journal of Business Research*, *29*(3), 59-74.

[36] Shamsudin, M., shak, M., Ahmad, A., & Hassan, S. (2020). Market orientation and customer engagaement towards customer satisfaction in banking industry. *Journal of Critical Review*, 966-974.

[37] Suhr, D. D. (2006). Exploratory or confirmatory factor analysis?.

[38] Sweeneya, L., & Swait, J. (2008). The effects of brand credibility on customer loyalty. *Journal of Retailing and consumer services*, 179-193.

[39] Thakur, R. (2019). The moderating role of customer engagement experiences in customer satisfaction–loyalty relationship. *European Journal of Marketing*, 0309-0566.

[40] Udayakumar, R., Joshi, A., Boomiga, S. S., & Sugumar, R. (2023). Deep Fraud Net: A Deep Learning Approach for Cyber Security and Financial Fraud Detection and Classification. *Journal of Internet Services and Information Security, 13*(4), 138-157. https://doi.org/10.58346/JISIS.2023.I4.010.

[41] Vivek, S., Beatty, S., & Morgan, R. (2012). Customer engagement: exploring customer relationships beyond purchase. *Journal of marketing theory and practice*, 122-146.

[42] Yaremko, H., Stoliarchuk, L., Huk, L., Zapotichna, M., & Drapaliuk, H. (2024). Transforming Economic Development through VLSI Technology in the Era of Digitalization. *Journal of VLSI Circuits and Systems, 6*(2), 65–74. https://doi.org/10.31838/jvcs/06.02.07

[43] Yasmin, A., Tasneem, S., & Fatema, K. (2015). Effectiveness of digital marketing in the challenging age: an empirical study. *Internation Journal of Mangement Science and Business Administration*, 69-80.

[44] Yoo, C., Sanders, G. L., & Moon, J. (2014). Exploring the effect of e-WOM participation on e-Loyalty in e-commerce. *Decision Support System*, 669-678.

[45] Yusuf, A. S., Che Hussin, A. R., & Busalim, A. H. (2018). Influence of e-WOM engagement on consumer purchase intention in social commerce. *Journal of services Marketing*, *32*(4), 493-504.