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Online Community Engagement in Artificial Intelligence-Crm and Impact on Digital Marketing Startegies in Healthcare Industry

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ABSTRACT:

The study examines the influence of AI-CRM on Digital Marketing Strategies. As it is focused on factors such as knowledge management and big data analytics role in online community engagement. The aim of the study is to answer the basic questions related to whether a company is influenced by these changing influences and willing to adopt digital marketing strategies as a tool in its marketing mix. Based on earlier empirical studies, it was shown that these factors are having impact on the digital market. The survey has been performed on a sample of marketers that are working in Asian market of healthcare sector. This can lead to the assumption that company size does not play any role in the adoption of AI in CRM in healthcare industry. Many organizations, regardless of their range, are still invested in digital marketing. On the other hand, previous experts explain that their experiences played a key role in determining the benefits of using the Internet to modify AI-CRM for business purposes. Organizations are actively using AI-CRM in online marketing tools through marketers to evaluate their contribution to the businesses positively. Although it is well explained that product testing significantly increases its acceptance. Knowledge plays a role in explaining the static point from a traditional point of view. Based on the assumed market, both traditional and digital market environments will be taken into account. At the same time, it is necessary to explain how adoption of AI-CRM through online community effect digital marketing strategies.

Keywords: Big data analytics, Knowledge management, Online marketing, Artificial intelligence, Customer Relationship management And Digital marketing strategies

1. Introduction

The artificial intelligence in CRM is on peak after 2019, has revolutionised the marketing landscape. Recent studies on AI-CRM have signified its role in the domain of marketing. Studies also shows how adoption of AI-CRM has impacted digital marketing strategies. The qualitative exploration has filtered the holistic and heuristic approach to quantify the construct for the study from three categories. These three categories have been classified as big data handling, knowledge management and competitive landscape. All these three categories narrow down the current study research aspect.

The current study ideas for problem generation can be related to data-driven decision making, personalization and automation. Data-driven decision making AI to facilitate the collection, analysis and use of customer data is given preference to understand and predict consumer behaviour and marketing effort (Ledro et al., 2022). Data driven decision are influenced by knowledge management that stated that evaluation of customer data should be done through iCRM in knowledge management environment (Chatterjee et al., 2020).

The problem has been better explained in the form of repurchase intention, where online behaviour consumer seen in virtual space. The role of digital online artificial intelligence was used during COVID period to analyse the user online engagement. The previous study analysis how online communities sale activities has infatuated the *user repurchase intention* (Bag et al., 2022). (Ledro et al., 2022)

Reason to engage with changing technology

The virtual space has led to digital technology acceptance to the peak level where behaviour of the consumer led organization to maintain technology adoption as one of the options. Still digital media played crucial role in engaging the consumers by increasing online engagement at consumer websites. COVID-19 has led to a significant shift in digital technologies and behavior, with individuals and companies adopting digitalization to maintain social distance. Digital and social media have played a crucial role in engaging consumers, with increased engagement on social media sites. Customer engagement involves continuous communication and valuable knowledge provided to consumers through various touchpoints. The earlier the theories from the paper of has shown multidimension for e-CRM has provided novel approach to give direction to the technology adoption of any technology advancement in market industry. Big data analytics (Ledro et al., 2023)

2. Literture Review

Theories related to study

According to this study, Weberian social theory needs to be updated in light of digital transformation. Weberian social theory is a multidimensional approach that reflects the wealth, power and status of an individual. The initiative of the study is to find relative theories that can develop the multidimension angle of the multiple understand to make understand for the common man. The question that has been related to AI-CRM where qualitative approach has defined the one aspect. But this lack the multidimension angle of the aspect that reduces the neutrality in aspect of anthropomorphism. Current debate among researches is that ai is competing and equally challenging the human capital workforce (Paju, 2020).

The misunderstand can be removed by operational and neutralise understand approach of the AI-CRM in marketing from operation and functionally analytic understand for the consumer behaviour. The biggest among organisation fitness for the competitiveness landscape the cost and product lifespan competitive technology advancement. For this traditional portfolio theory states limited sources for the technology should be allocated to limited resources with

simplified idea that can perform with idealistic model that can help companies to analyse and evaluate the fitness of specific technology (Saura et al., 2021). The model of channel attentive squeezed provide feature of the DLSTM model adapted from (Pradhan & Srivastava, 2024) the featured are performed that are logical and categorical implication evaluated on python platform. The motivation to use emojis for categorical evaluation into 2 way that are positive and negative. The loops that are used are from the categorical liket scale to simplified into 2 matrixes into simplest binary evaluation.

To establish the relation between the factors and marketing strategies from earlier studies one need to understand the five-dimension theories that are related to organisation, industrial, behavioural, grounded, technological, and environmental, societal and industrial based strategies particular in aspect of AI revolution. The establishment of these theories compilation has been motivated by previous studies that multidimension theories must need to explore and studied with the change in time. For consumer-based research researches need to consider the "commitment-trust theory of relationship" which are already tested in earlier studies.

The role employing machine learning for CMER is learning technique employed in decision tree to study the emotional categorical values in the simple learning types. Machine learning simple operational software's like python categories for both technical and non-technical aspect that judge to provide better resulys that are basic leads to results produced from the python related codes. Codes should be simple and can be easily modified as per any category of study. OCKM approach to justify the objectives related to research work. To narrow down the factors related to AI-CRM topic only. B- signify the big data analytics, OCE- related to Online Communities Engagement, and K - related to knowledge seeking behaviour and DMS signify Digital Marketing Strategies.

Role of Marketers

Marketers can utilize AI to monitor consumer behaviour in online community present on social media networks (Wang et al., 2012). According to researchers around the world there is need to use three-dimensional measurement to test the perceived activities (Oh et al., 2024). To study the three dimensional aspect of an individual perception these studies by (Oh et al., 2024)has developed scale on some aspect which can be utilised in more similar studies. These activities show interactivity of marketing tools used by marketers to have perception of changing technology (Gaczek et al., 2023). The previous study describes that user's emotions, thoughts and behaviour is highly influenced by the AI empowered CRM technology. However, with the emergence of social media, marketer need to understand the perceived interactivity on social networking sites that progressed with the usage of AI powered CRM. As described in previous studies marketers need to robust the analytical to target and segmentation of the consumer activities which indirectly influences rate and satisfaction of the consumer. This leads to understanding of user sentiment which is crucial to enhance sales and to sales in marketplace (Bag et al., 2022).

Consumer Relationship Management

The combination of B2B digital marketing strategies with usage of AI based CRM has classified its types and engage to explore the its techniques. The future researches need to discusses its direction of the technology that automatically directed with big data analytics. The starting study that has motivated to study AI-CRM in aspect to explore E-CRM from give researchers that already explained the conceptual framework from holistic approach for further research. These discussions leads theoretical debates for implication, processes and performances outcomes that are focused on the entire interrelations (Romano & Fjermestad, 2003).

Developing Hypothesis

Role of Big Data Analytics in Online Community Engagement

Marketers can provide advertisement a potential to see the customer from different perspective. Following this allows marketers to personalised the ads as per consumer requirement. Marketers need to ensure that consumer participation is personalised and it emphasize digital marketing interaction more interesting. Talking about 'data driven engagement' is the need of an hour where on can build advanced machine learning model to keep in the marketing competitive arena. However, low cost 'data-driven customer engagement has boosted the conversion online rates (Kaiser et al., 2020). Big data analysis has been need to be understand from Artificial intelligence aspect why marketers need to study big data analytics as this is one of the gap for the study (Farooqi et al., 2021). The digital revolution has significantly impacted the business procedure to enhance unstructured data and analyse it to make some progress.

H1: Big Data Analytics has significant effect on online community engagement.

Knowledge Management Role in Online Community Engagement

In organization sometimes marketers fail to target their customers. For this strategy like re-targeting can be applied in case of customers which has been visited on product site but not made any purchase (Gupta et al., 2021). The integration of AI-CRM enables the marketers to identify market readiness (Vidhyashree). The role of Artificial Intelligence in progress of marketing 4.0 is notable from industry 4.0 aspect. The marketing 4.0 is majorly focused on enhancing market practices (Mukhopadhyay et al., 2024). The marketing industry is changing but also showing some resistance towards changing technology. This indicates that those who are in charge in the present organization at their positions need to adjust to the present changes that are occurring due to technology advancement. Marketing has been explained as dynamic field of study that describe individual knowledge seeking behaviour to setup digital marketing. The earlier study shows that specific persons in the organizations are seeking to learn about "AI-CRM-KM" in the marketing domain. The present study is developing relation of knowledge management with online community engagement.

The first scenario of knowledge management come around the seeking regarding healthcare of patients through online health communities (Meskarpour-Amiri et al., 2021). This process promotes "patient engagement". The expertise suggests the in-depth exploration of online health communities over knowledge sharing in these communities. The knowledge management process involves of four stages- "customer assessment, feedback, customer counselling and customer management". Although AI based earlier PRM describes as "patient relationship management" helps in providing assessment of "customer needs, feedback and issues addressing". This process enables in improving patient experience. Here from marketing context patients are customers of health industry. In marketing domain metaverse is emerging concept (Daugherty & Wilson, 2022). With the usage of PRM in healthcare sector reduce the gaps that enables to collect patient experience and make better decision making using metaverse data application. This is only possible by adjusting the synthesis of literature and their theories and model application to understand better the AI-CRM in marketing domain.

H2: Knowledge Management has significant effect on Online Community Engagement.

Online Community Engagement effect on Digital Marketing Strategies

In research opinion, ensuring transparency about AI-powered interactions with customers is crucial (Reddy, 2022). "*User engagement*" has positive relationship with 'social media'. According to any customer experience positive user engagement is necessary. The virtual world let these consumers to experience technology mediated environment. This customer

journey provides them a different aspect of social media that particularly focused. Such focused elements drive companies improve and add value added proposition for optimum customer experience in the digitalised world (Flavi_an et al., 2019). On the other hand, virtual technologies significantly affect 'customer experience'. While focusing on issues related to privacy and social media where online community engaged for playing crucial roles. Marketers need to understand that these problems can change customer experiences (Hoyer et al., 2020). Digital marketing has reshaped the relationship with online users who provides reviews according to their profile. In this context, positive comments from these online users impact the cognitive process of online consumers. That are influenced by influencing power of these online communities (Chen et al., 2011). There is different customer who plays significant role in customer engagement (Eigenraam et al., 2018). Marketers must utilize different social and online media which is advanced in nature. This segmentation can influence conversion rates and increase customer satisfaction among online communities. On crucial factor that marketers need to understand user sentiment for enhancing sales. (He et al., 2015). The usage of online communities or it has been explained as "usage of social media". According to previous study social customer relationship management has examined relationship through online communities and customer loyalty towards "customer loyalty" (Ibrahim et al., 2021). The term virtual or online communities only share norms related to "*behaviour"* among various groups who setup certain standards as explained by (Komito, 1998). These groups mean only fundamentally right when having certain social ties and social interaction. The online communities provide customers routines data on daily basis explaining how consumer behaves. This explains that there is advancement in marketing theory and practice (Kozinets, 1999).

The definition of online community has defined many outcomes related to online brand community. But still question debates among scholars is that does online community plays complete role in responsible manner to justify the its adoption among marketers. To justify this context an old insight come into discussion that shows that early investigations in brand communities has failed to capture consumer engagement. The failure of technology innovation and investment in investment has affected digital orientation of business performance with usage of AI in CRM (Chatterjee, Chaudhuri, Vrontis, et al., 2022).

H3: Online Community Engagement has significant effect on Digital Marketing Strategies.

Role Online Communities in Digital Marketing Strategies

The first aspect of "online communities" or "virtual communities" has plays a confusion but this has been removed in earlier study by (Kozinets, 1999). The study explains that both terminology plays an equivalent role. The study explains how marketers affected by online communities and their role in changing marketing strategies. Whenever any study tries to understand any factor which influence the main construct it is always mandatory to explain how relation of factor is related to construct. For current topic readers need to know that social space and virtual space among social user are same thing. Hence role of virtual technology impact on customer services cannot be ignored. As, these technologies explains clearly how *privacy issues* with compilation of social media plays and important character for marketers to understand these impacts to ensure consistent *customer experience* (Bag et al., 2022). In study of (Kozinets, 1999) he explained that managers need to considers the role of virtual communities in the *strategic implication*. Earlier in the study of (Kozinets, 1999) he has explained virtual community or online community in one simple term from ethnographic point at that term is known as "E-TRIBES".

Gap of Study:
The current study supports the usage of AI technology in order to improve conversion rates in online platforms such as social media. Such cases were highlighted the need for an updated Weberian social theory in the digital era. This theory indicates how culture is evolves in online communities (Ossewaarde, 2019). While AI technology can enable them to detect consumer online buying pattern and manipulate them to make impulse purchase. This side is needed to be checked in future studies (Stephen, 2016).

Area of domains has been identified for holistic approach in categories E-CRM that are as follows technology, which is most popular category. Second category goes to human category and third is twin identified with equal distribution that are related to business models and markets models that are categorised as B2C, C2C and C2B. last factor category is related to awareness of the technology adoption which has been challenged in many studies in form of employee's awareness, intention, attitude and changing behaviour of customer all these factors can be study from third person perspective from knowledge management. This explains how better organizational employees better understand its customer behaviour, aptitude and employees own attitude. This classification creates confusion can be reduced when employee knowledge management can be tested about technology adoption among customer and organization (Romano & Fjermestad, 2003).
For data analytics researchers need to analyse and explore the tactics of future analytic techniques that are AI-CRM engaged (Saura et al., 2021). For data analytics question like "what type of company data would be more relevant for developing marketing strategies?" (Gupta et al., 2021). Talking about online communities' role in integrative marketing channel it has been reported from earlier study it has examined the social customer relationship management through online communities. It enables to explain that social customer relationship management has significant impact on brand image and 'customer loyalty'. Marketers needs to develop a self-robust analytic understanding to understand better role of social media in consumer segmentation. Marketers also need to focus on user sentiments to increase sales and customer satisfaction. All these parameters can be lined up when research is done to understand marketers perspective towards AI powered CRM (Bag et al., 2022).

Objectives of the Study
- To highlight the effectiveness of big data analytics and knowledge management in online community engagement.
- To study the integration of online community engagement in AI-CRM.
- To analyse the impact of online community engagement AI-CRM on Digital Marketing Strategies.

3. Research Methodology

The mixed method approach includes of both qualitative and quantitative method. Qualitative method has included of databases from Scopus and google. There were several papers which were identified through manual screening. The study comprises of the mixed method approach to explore the factors influencing marketer's motivation to learn new technologies, including various segments of knowledge seeking behaviour. This emphasizes the need for marketers to have necessary skills and expertise to drive AI-powered marketing environment. The current state of knowledge for AI-CRM in marketing is limited. This highlights that understanding AI in context to knowledge management practices is crucial for better AI-CRM tools and applications. The demographical distribution is including of 302 participants as a marketer.

The explanation of demographical analysis of population is provided in analysis section of the study.

4. Result Analysis

Demographical Analysis:

Table 1: demographic details of respondents.

Experience level with Designation	No. of Participants	Response percentage
Junior Marketer (0-2 years)	80	26.5 %
Mid-level Marketer (3-5 years)	100	33.1 %
Senior Marketer (6 years and above)	70	23.2 %
Marketing Manager	30	9.9 %
Director	22	7.3 %

Fig 1: demographical representation

PLS MODEL

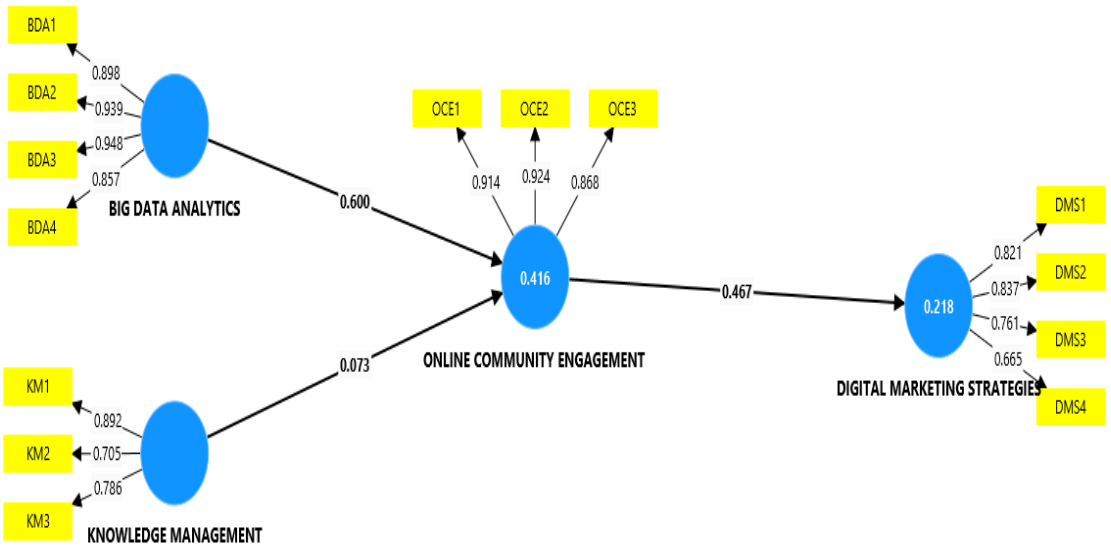

Fig 2: PLS SEM model evaluation

Table 2: Path Coefficient of Construct Hypothesis

HYPOTHESIS RELATION	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (|O/STDEV|)	P values	Hypothesis accepted/rejected
BIG DATA ANALYTICS -> ONLINE COMMUNITY ENGAGEMENT	0.600	0.599	0.047	12.713	0.000	Accepted
KNOWLEDGE MANAGEMENT -> ONLINE COMMUNITY ENGAGEMENT	0.073	0.076	0.052	1.385	0.166	Rejected
ONLINE COMMUNITY ENGAGEMENT -> DIGITAL MARKETING STRATEGIES	0.467	0.470	0.054	8.707	0.000	Accepted

Table 2 represent the path coefficient result. There is a strong positive relationship between Big Data Analytics and Online Community Engagement. The high t-statistic (12.713) and very low p-value (< 0.001) indicate that this relationship is statistically significant. One can be very confident that this relationship didn't occur by chance. There appears to be a weak positive relationship between Knowledge Management and Online Community Engagement. However, the low t-statistic (1.385) and high p-value (0.166) suggest that this relationship is not statistically significant. It cannot be confidently said that this relationship exists in the broader population. Hence, it might have occurred by chance in our sample. There is a moderate to strong positive relationship between Online Community Engagement and Digital Marketing Strategies. The high t-statistic (8.707) and very low p-value (< 0.001) indicate that this relationship is statistically significant. We can be very confident that this relationship didn't occur by chance. These results suggest that focusing on Big Data Analytics could be particularly beneficial for improving Online Community Engagement, which in turn could positively impact Digital Marketing Strategies. However, the role of Knowledge Management in this context is less clear and may require further investigation.

Table 3: Outer loading of the items related to construct

	BIG DATA ANALYTICS	DIGITAL MARKETING STRATEGIES	KNOWLEDGE MANAGEMENT	ONLINE COMMUNITY ENGAGEMENT
BDA1	0.898			
BDA2	0.939			
BDA3	0.948			
BDA4	0.857			
DMS1		0.821		
DMS2		0.837		

DMS3		0.761		
DMS4		0.665		
KM1			0.892	
KM2			0.705	
KM3			0.786	
OCE1				0.914
OCE2				0.924
OCE3				0.868

Table 3 represents the Factor Loadings or outer weights.

Big Data Analytics (BDA): This factor has highest overloading ranging from 0.857 to 0.948. These results suggests that construct items are strongly related to the underlying construct "Big data analytics"

Online Community Engagement (OCE): This category has the second-highest factor loadings, ranging from 0.868 to 0.924. These high loadings indicate that the items are strongly associated with the concept of Online Community Engagement.

Knowledge Management (KM): The factor loadings for this category range from 0.705 to 0.892, showing a moderate to strong relationship with the Knowledge Management construct.

Digital Marketing Strategies (DMS): This category has the lowest factor loadings, ranging from 0.665 to 0.837. While still acceptable, these loadings suggest that some items (particularly DMS4) may not be as strongly related to the Digital Marketing Strategies construct as the others.

Table 4: R square

	R-square	**R-square adjusted**
DIGITAL MARKETING STRATEGIES	0.218	0.215
ONLINE COMMUNITY ENGAGEMENT	0.416	0.412

Table 4 represent the R-Square criteria for the following constructs in detail:

Digital Marketing Strategies:

R-square (0.218): This indicates that approximately 21.8% of the variance in the dependent variable is explained by the independent variables in the Digital Marketing Strategies model.

Adjusted R-square (0.215): This is slightly lower than the R-square, accounting for the number of predictors in the model. It suggests that about 21.5% of the variance is explained when adjusted for the number of predictors.

Online Community Engagement:

R-square (0.416): This shows that about 41.6% of the variance in the dependent variable is explained by the independent variables in the Online Community Engagement model.

Adjusted R-square (0.412): The adjusted value is slightly lower, indicating that approximately 41.2% of the variance is explained when accounting for the number of predictors.

Interpretation:

Comparison and Overall Interpretation:

Model Fit: The Online Community Engagement model appears to be a better fit for its data compared to the Digital Marketing Strategies model, as it explains a larger portion of the variance (41.6% vs 21.8%).

Predictive Power: Both models have some predictive power, but the Online Community Engagement model is notably stronger. However, neither model explains the majority of the variance in their respective dependent variables.

Unexplained Variance: For Digital Marketing Strategies, about 78.2% of the variance remains unexplained. For Online Community Engagement, about 58.4% is unexplained. This suggests that there are other factors not included in these models that could be influencing these constructs.
Model Complexity: The small difference between R-square and adjusted R-square in both models suggests that the number of predictors is appropriate and not overfitting the data.

Table 5: "Construct reliability and Validity"

	Cronbach's alpha	**Composite reliability (rho_a)**	**Composite reliability (rho_c)**	**Average va Riance extracted (AVE)**
BIG DATA ANALYTICS	0.931	0.936	0.951	0.830
DIGITAL MARKETING STRATEGIES	0.777	0.804	0.856	0.599
KNOWLEDGE MANAGEMENT	0.720	0.802	0.839	0.637
ONLINE COMMUNITY ENGAGEMENT	0.886	0.891	0.929	0.814

Table 5 represents the results related to construct validity and reliability. The Cronbach's alpha of 0.777 indicates acceptable internal consistency reliability, as it's above the typical threshold of 0.7. Both composite reliability measures are above 0.8, suggesting good reliability. The AVE of 0.599 is above the 0.5 threshold, indicating adequate convergent validity. The DMS construct explains about 59.9% of the variance in its indicators. The Cronbach's alpha of 0.720 indicates acceptable internal consistency reliability, just above the 0.7 threshold. Both composite reliability measures are above 0.8, suggesting good reliability. The AVE of 0.637 is above the 0.5 threshold, indicating good convergent validity. The KM construct explains about 63.7% of the variance in its indicators. The Cronbach's alpha of 0.886 indicates very good internal consistency reliability. Both composite reliability measures are above 0.89, suggesting excellent reliability. The AVE of 0.814 is well above the 0.5 threshold, indicating strong convergent validity. The OCE construct explains about 81.4% of the variance in its indicators.

Table 6: HTMT

	BIGDATA ANALYTICS	**DIGITAL MARKETING STRATEGIES**	**KNOWLEDGE MANAGEMENT**	**ONLINE COMMUNITY ENGAGEMENT**
BIG DATA ANALYTICS				
DIGITAL MARKETING STRATEGIES	0.582			
KNOWLEDE MANAGEMENT	0.694	0.727		
ONLINE COMMUNITY	0.703	0.549	0.501	

ENGAGEMENT				

Table 6 represents the results related to HTMT interpretation: The correlation matrix reveals moderate to strong positive relationships among all four constructs: Big Data Analytics (BDA), Digital Marketing Strategies (DMS), Knowledge Management (KM), and Online Community Engagement (OCE). BDA shows strong correlations with KM (0.694) and OCE (0.703), and a moderately strong correlation with DMS (0.582), suggesting its central role in these business practices. The strongest correlation in the matrix is between DMS and KM (0.727), indicating a particularly close relationship between these two areas. OCE demonstrates moderate to strong correlations with all other constructs, with its strongest link to BDA (0.703). These relationships suggest a highly interconnected network of business practices, where advancements or changes in one area are likely to influence the others. The absence of correlations exceeding 0.8 indicates that while these constructs are closely related, they remain distinct concepts without problematic multicollinearity for potential regression analyses.

Table 7: FORNELL LARCKER CRITERION

	BIG DATA ANALYTICS	**DIGITAL MARKETING STRATEGIS**	**KNOWLEDGE MANAGEMENT**	**ONLINE COMMUNITY ENGAGEMENT**
BIG DATA ANALYTICS	0.911			
DIGITAL MARKETING STRATEGIES	0.510	0.774		
KNOWLEDGE MANAGEMENT	0.581	0.563	0.798	
ONLINE COMMUNITY ENGAGEMENT	0.642	0.467	0.422	0.902

Table 7 interpret the results of Fornell-Larcker criterion matrix that demonstrates strong discriminant validity among the four constructs: Big Data Analytics (BDA), Digital Marketing Strategies (DMS), Knowledge Management (KM), and Online Community Engagement (OCE). The square root of the Average Variance Extracted (AVE) for each construct (shown on the diagonal) is greater than its correlation with other constructs (off-diagonal elements), satisfying the Fornell-Larcker criterion. BDA (0.911) and OCE (0.902) show particularly high discriminant validity, while DMS (0.774) and KM (0.798) also meet the criterion but with slightly lower margins. The highest inter-construct correlation is between BDA and OCE (0.642), followed by BDA and KM (0.581), yet these are still well below their respective AVE square roots. This indicates that each construct captures phenomena unique to its conceptualization, despite the moderate to strong correlations observed between them.

Table 8: Model Fit criteria as per PLS-SEM

	Saturated model	**Estimated model**
SRMR	0.068	0.115

d_ULS	0.487	1.393
d_G	0.197	0.254
Chi-square	360.215	426.768
NFI	0.866	0.842

Table 8 present a mixed assessment of the PLS-SEM model's performance. The Standardized Root Mean Square Residual (SRMR) for the saturated model (0.068) is below the conservative threshold of 0.08, indicating a good fit, while the estimated model's SRMR (0.115) exceeds this threshold, suggesting some misfit. The 'd_ULS' and 'd_G' values are lower for the saturated model compared to the estimated model, which is expected. The Chi-square value is lower for the saturated model (360.215) than the estimated model (426.768), indicating that the saturated model fits the data better. The Normed Fit Index (NFI) values for both the saturated (0.866) and estimated (0.842) models are close to, but slightly below, the recommended threshold of 0.9, suggesting a moderate fit. CONCLUSIONS

Artificial Intelligence has significantly impacted marketing strategies in digital marketing. The decision making with the help of marketers can handle big data, knowledge management and competitive landscape in digital marketing arena. Although AI facilitates better data driven decision making, automation and personalization for better digital marketing strategies. Covid pandemic has accelerated the digital technology adoption. But with the advancement one need to focus on how organization in healthcare industry can utilise this. the AI-CRM is integrated system that enables the organization to facilitates what is the current trend in customer in online communities. This trend allows large collection of data feature of AI-crm empowers the marketers to study the trend of customers to see what they are moving towards. The multidimension approach was necessary to relate it with virtual space where it states that technology acceptance has accelerated the online community engagement. This shift has made organization working in health care industries to adopt digitalization and big data analytics. The study tries to comprise various theories from multiple angles. It tries to study the relation between bigdata analytics and knowledge management. This role is tries to understand online communities' engagement in AI-CRM from marketer's perspective and then check the effect on digital marketing strategies. The theoretical model has been tested through Smart Pls software. From the results it has been cleared that utilizing Big data analytics can enhance online community engagement. This also enhance impact on digital marketing decisions for future purposes. The role of knowledge management is minimised still can be studied with large sample to test out the relayed theory through this research. The model for Digital Marketing Strategies explains a relatively small portion of the variance in the data. This suggests that while the model has some predictive power, there are likely other factors not included in the model that could better explain the variations in Digital Marketing Strategies. The model for Online Community Engagement explains a moderate amount of the variance in the data. This suggests that the model has better predictive power compared to the Digital Marketing Strategies model, but there's still a significant portion of unexplained variance. In conclusion, while both models provide some explanatory power, the Online Community Engagement model performs better. However, both models leave a significant amount of variance unexplained, suggesting that these complex constructs are influenced by factors beyond those currently included in the models. According to Fornell-Larcker criterion results support the distinctiveness of these four constructs in the measurement model, providing evidence of good construct validity in the study. Overall, these results indicate that while the model demonstrates reasonable fit, there may be room for improvement, particularly in the estimated model's structure or specification. The proposed theoretical model can be further explored.

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