

Digital Transformation in Customer Relationship Management: Enhancing Engagement and Loyalty

¹Dr. Bibhash Auttri, ²Koneti Chaitanya, ³Sreeram Daida, ⁴Dr. Sanjiv Kumar Jain

¹Post Doctorate Researcher

Indian School of Business and Administration

Email ID: bibhash.auttri@icloud.com

²Researcher, Department of Social Science, Bharathiar University, Coimbatore

Email: chaitanyakoneti9@gmail.com

³M.Com, MBA, MA(Eng), PGDT, M.Phil, (PhD), SET....

Associate Professor of Commerce,

Badruka College of Commerce and Art's, Hyderabad, 500027.

sreeram.daida@gmail.com

⁴Sr. Assistant Professor, Medi-Caps University, Indore

sanjivkj@gmail.com

Abstract: - Digital transformation has revolutionized the way businesses interact with their customers, prompting organizations to adopt new approaches to customer relationship management (CRM). This research paper explores the role of digital transformation in enhancing customer engagement and loyalty through CRM practices. By leveraging digital technologies, organizations can create personalized and seamless customer experiences across various touchpoints, thereby strengthening customer relationships. The paper examines different strategies and tools employed in digital CRM initiatives, such as personalization, omnichannel integration, and social media engagement, while also considering the challenges associated with privacy, data security, and organizational resistance. Digital transformation is not just about implementing technology but also about reimagining processes, culture, and customer experiences to leverage the full potential of digital tools. It is a strategic and ongoing journey that organizations embark on to embrace digital opportunities, drive innovation, and remain relevant in today's rapidly evolving digital landscape. Digital transformation refers to the process of utilizing digital technologies and strategies to fundamentally change and improve various aspects of an organization's operations, processes, and business models. It involves the integration of digital tools, technologies, and data-driven approaches to drive innovation, enhance customer experiences, streamline operations, and adapt to the changing digital landscape. The findings highlight the benefits, challenges, and best practices associated with digital transformation in CRM, providing valuable recommendations for businesses aiming to optimize customer relationships in the digital era.

Keywords: - Digital Transformation, Customer relationship management, Strategies and Tools, Engagement and Loyalty, Benefits and Challenges of Digital Transformation in CRM.

I. Introduction: - Digital transformation has significantly reshaped the landscape of customer relationship management (CRM), revolutionizing the way organizations interact with and serve their customers. As digital technologies continue to advance at a rapid pace, businesses are realizing the need to adapt and leverage these technologies to enhance customer experiences, build stronger relationships, and drive sustainable growth. Traditionally, CRM involved managing customer interactions through manual processes and disjointed systems. However, with the advent of digital transformation, organizations have embraced a more holistic approach to CRM, incorporating digital tools, strategies, and data-driven approaches to better understand, engage, and retain customers. Digital transformation in CRM encompasses a range of initiatives aimed at leveraging digital technologies to optimize customer interactions, streamline operations, and gain a competitive edge in the digital era. It involves the integration of various technologies, such as cloud computing, big data analytics, artificial intelligence (AI), and automation, to enhance the efficiency, effectiveness, and personalization of customer engagement. One of the primary goals of digital transformation in CRM is to gain deeper insights into customer behaviour, preferences, and needs. Through the collection and analysis of vast amounts of customer data from multiple sources, organizations can extract valuable insights that enable them to

understand customers on a more individual level. This, in turn, allows for the delivery of personalized experiences, targeted marketing campaigns, and tailored product recommendations.

Moreover, digital transformation has facilitated seamless multichannel engagement, enabling customers to interact with organizations through various touchpoints such as websites, mobile applications, social media platforms, and chatbots. Integration across these channels ensures a consistent and personalized customer experience, regardless of the chosen communication platform. Automation and AI technologies play a significant role in digital CRM transformation, automating routine tasks, and empowering organizations to provide timely and proactive customer service. Chatbots, virtual assistants, and AI-powered analytics enable organizations to address customer inquiries, provide recommendations, and resolve issues promptly, thereby improving customer satisfaction and loyalty. However, the journey toward digital transformation in CRM is not without challenges. Organizations face obstacles such as data privacy concerns, organizational resistance to change, and the need for ongoing training and upskilling of employees. Successfully navigating these challenges requires a strategic and holistic approach that encompasses technology implementation, cultural shifts, and continuous learning. This research paper aims to explore and analyze the impact of digital transformation on CRM, focusing on the enhancement of customer engagement and loyalty. By examining the strategies, tools, and best practices associated with digital CRM initiatives. Digital transformation has fundamentally transformed CRM by leveraging technology, data, and automation to create personalized, efficient, and seamless customer experiences. The subsequent sections of this paper will delve deeper into the specific ways digital transformation has influenced CRM, highlighting its benefits, challenges, and best practices for organizations seeking to excel in customer relationship management in the digital age.

II. Digital Transformation in CRM: - Strategies and Tools-

Digital transformation in customer relationship management (CRM) involves the strategic adoption of digital technologies and tools to optimize customer interactions, personalize experiences, and drive business growth. This section provides an in-depth exploration of the different strategies and tools utilized in digital transformation within CRM.

1. Integrated CRM Systems: -An integrated CRM system serves as the foundation for digital transformation in CRM. It consolidates customer data from various sources into a centralized database, providing a holistic view of customers across different touchpoints. These systems enable organizations to manage customer interactions, track sales activities, and streamline marketing efforts. Popular CRM platforms include Salesforce, Microsoft Dynamics 365, and Zoho CRM. Integrated CRM systems play a crucial role in digital transformation within customer relationship management (CRM). These systems consolidate and centralize customer data from various sources, enabling organizations to have a comprehensive view of their customers and improve their interactions. An integrated CRM system brings together data from multiple touchpoints, such as sales, marketing, customer service, and support. It captures and stores customer information, including contact details, purchase history, preferences, interactions, and feedback. By centralizing this data, organizations can gain valuable insights into customer behavior, preferences, and trends. Streamlined Processes: An integrated CRM system allows for streamlined and automated processes. It eliminates manual data entry and duplication, reducing the chances of errors and improving overall operational efficiency. By automating routine tasks and workflows, employees can focus on higher-value activities, such as building relationships and delivering exceptional customer experiences.

Integrated CRM systems facilitate improved customer service and support. With access to complete customer profiles, organizations can quickly respond to customer queries, resolve issues, and provide personalized assistance. Customer service representatives can access relevant information in real-time, leading to faster response times and more satisfying customer interactions. It also provide organizations with actionable insights based on real-time and historical customer data. By leveraging data analytics and reporting capabilities, organizations can identify trends, patterns, and customer preferences. These insights enable data-driven decision making, helping organizations refine their marketing strategies, optimize sales efforts, and improve overall customer satisfaction. It also promotes collaboration and communication among different teams within an organization. Sales, marketing, and customer service teams can easily share customer information, collaborate on campaigns, and align their efforts. This facilitates a seamless and consistent customer experience across different touchpoints.

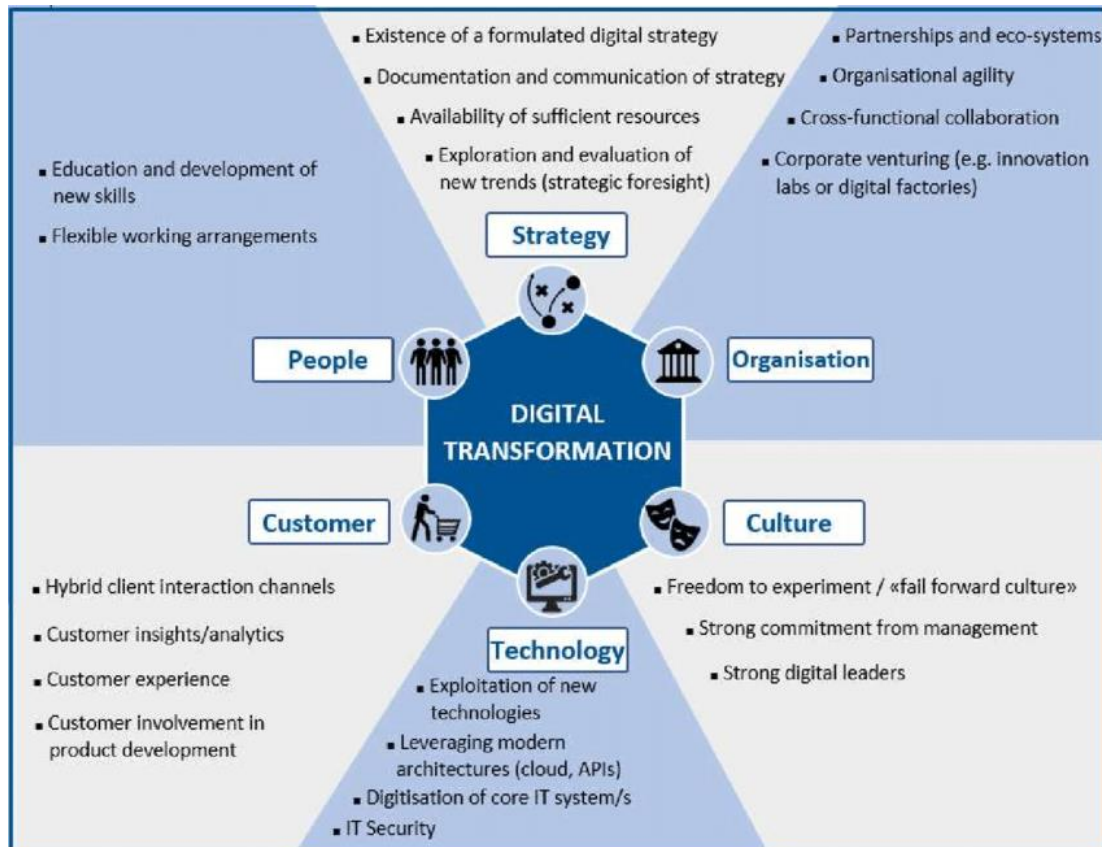


Figure 1 Digital Transformation Key Features

Integrated CRM systems are designed to scale as an organization grows. They can accommodate larger customer databases, increasing transaction volumes, and evolving business needs. Additionally, cloud-based CRM systems offer flexibility in terms of accessibility, allowing employees to access customer data and perform CRM tasks from anywhere, anytime. Overall, an integrated CRM system acts as a centralized hub for customer data, enabling organizations to better understand, engage, and serve their customers. It supports digital transformation efforts by providing a foundation for personalized marketing, improved customer experiences, and data-driven decision making.

2. Multichannel Engagement: Digital transformation enables organizations to engage with customers across multiple channels, allowing them to choose their preferred communication method. This includes websites, mobile applications, social media platforms, email, live chat, and chatbots. By integrating these channels into the CRM system, organizations can provide consistent and personalized experiences, fostering customer satisfaction and loyalty. Here's how digital transformation facilitates multichannel engagement in CRM:

2.a Channel Integration: Digital transformation integrates multiple communication channels into a centralized CRM system. This integration allows organizations to manage and track customer interactions across channels such as websites, mobile apps, social media platforms, email, chatbots, and call centers. Integrated CRM systems capture data from these channels, providing a holistic view of customer interactions and enabling seamless communication.

2.b Consistent Customer Experience: Digital transformation ensures a consistent customer experience across different channels. Organizations can implement standardized branding, messaging, and user experiences across various touchpoints. Customers receive a unified and cohesive experience, regardless of the channel they choose to engage with. This consistency enhances customer satisfaction and fosters a strong brand image.

2.c Personalized Communication: Digital transformation enables personalized communication at scale. By leveraging customer data and analytics, organizations can tailor their messaging and content based on individual preferences,

behaviors, and demographics. Personalization enhances customer engagement and increases the relevance of communication, leading to higher response rates and customer satisfaction.

2.d Real-Time Responsiveness: Digital transformation facilitates real-time responsiveness to customer queries and requests. With integrated CRM systems, organizations can receive and respond to customer interactions promptly. Automated alerts, notifications, and workflows ensure that customer inquiries are addressed in a timely manner, irrespective of the communication channel used. This real-time responsiveness enhances the overall customer experience and builds customer trust.

By embracing digital transformation, organizations can effectively engage with customers across multiple channels, providing consistent experiences, personalized communication, and real-time responsiveness. Multichannel engagement in CRM facilitates stronger customer relationships, increased customer satisfaction, and improved business outcomes.

3.Social Media and Sentiment Analysis:- Digital transformation plays a significant role in leveraging social media and sentiment analysis for CRM (customer relationship management). Here's how digital transformation enables the use of social media and sentiment analysis in CRM:

3.aSocial Media Integration: Digital transformation integrates social media platforms into CRM systems, allowing organizations to monitor and engage with customers across various social channels. This integration enables capturing social media interactions, mentions, comments, and feedback in real-time, providing a comprehensive view of customer sentiment and engagement.

3.bSocial Listening: Digital transformation enables organizations to actively listen and monitor social media conversations related to their brand, products, or industry. Through social listening tools and technologies, organizations can track brand mentions, hashtags, and keywords to gain insights into customer opinions, trends, and sentiment. Social listening helps organizations stay informed about customer perceptions, identify emerging issues, and proactively address customer concerns.

3.dSentiment Analysis: Digital transformation leverages sentiment analysis tools and techniques to analyze social media posts, comments, and reviews. Sentiment analysis uses natural language processing and machine learning algorithms to determine the sentiment expressed in text, such as positive, negative, or neutral. By applying sentiment analysis to social media data, organizations can gauge customer sentiment, identify patterns, and measure the impact of their marketing campaigns or brand reputation on social platforms.

3.eCustomer Feedback and Engagement: Digital transformation facilitates gathering customer feedback and engagement through social media channels. Organizations can use social media platforms to launch surveys, polls, or contests to collect customer opinions, preferences, and feedback. This real-time feedback allows organizations to gain valuable insights, make informed decisions, and respond promptly to customer needs and concerns.

3.fInfluencer Marketing: Digital transformation allows organizations to identify and collaborate with social media influencers who have significant reach and influence within their target audience. By partnering with influencers, organizations can amplify their brand message, reach new audiences, and enhance brand credibility. CRM systems can track influencer engagements and measure the impact of influencer marketing campaigns on customer acquisition and loyalty.

4. Personalization and Customer Segmentation: Personalization is a key strategy in digital CRM transformation. It involves leveraging customer data and analytics to deliver tailored experiences and targeted messaging. By segmenting customers based on demographics, behaviors, preferences, or purchase history, organizations can provide personalized product recommendations, customized offers, and individualized communications. Personalization enhances customer engagement and fosters stronger customer relationships. It can be done in following way: -

Data Integration and Centralization: Digital transformation involves integrating customer data from various sources into a centralized CRM system. This includes data from sales, marketing, customer service, social media, website interactions, and more. Centralizing customer data provides a comprehensive view of each customer's interactions, preferences, and purchase history, forming the foundation for personalization and segmentation.

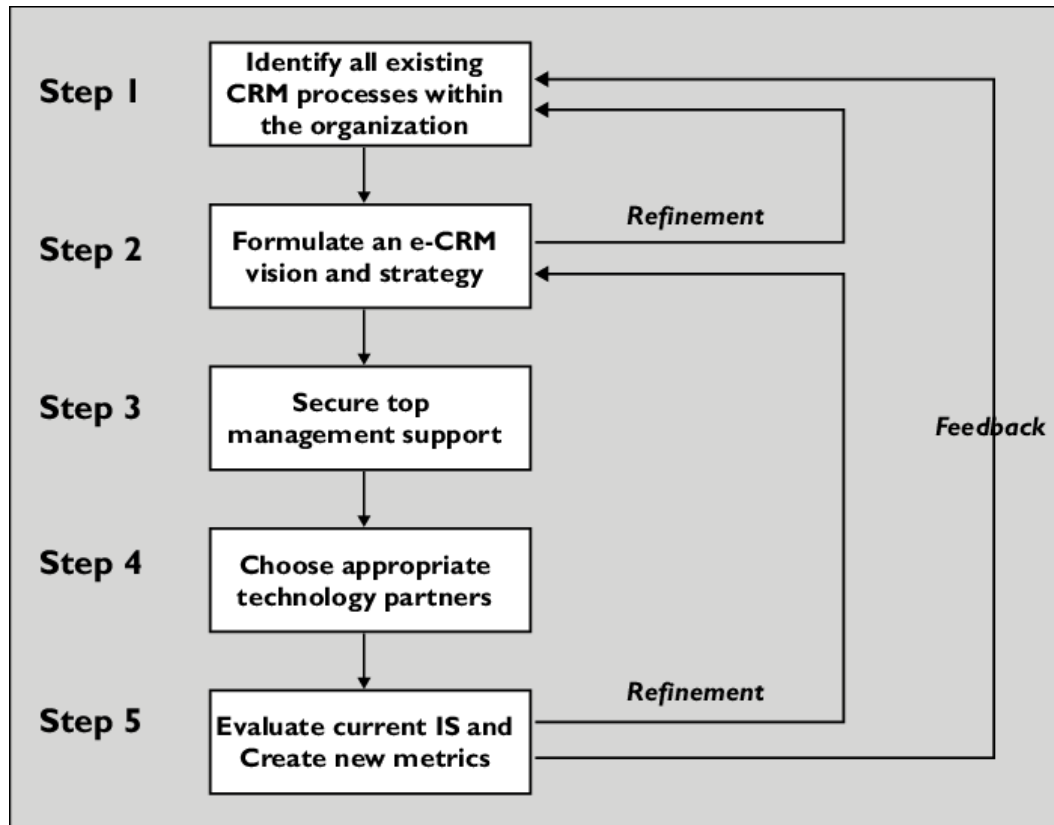


Figure 2 Converting CRM in e- CRM

Customer Profiling and Segmentation: With integrated customer data, organizations can create detailed customer profiles and segment their customer base. Customer profiling involves analyzing demographic information, preferences, behaviors, and transactional data to understand individual customer needs and preferences. Segmentation categorizes customers into groups based on common characteristics, allowing organizations to target specific segments with personalized messaging and offers.

Predictive Analytics: Digital transformation enables the use of predictive analytics to anticipate customer behavior and preferences. By analyzing historical data and applying machine learning algorithms, organizations can predict customer actions, such as purchase likelihood, product preferences, or churn probability. These insights help in personalizing customer interactions and tailoring marketing campaigns to specific segments.

Personalized Messaging and Content: Digital transformation empowers organizations to deliver personalized messaging and content to individual customers or segments. By leveraging customer data, organizations can customize marketing communications, email campaigns, website content, and product recommendations to align with customer preferences, interests, and purchase history. Personalized messaging enhances customer engagement and improves the likelihood of conversion.

III. Benefits and Challenges of Digital Transformation in CRM: - Digital transformation in CRM offers several benefits, but it also comes with certain challenges. Here are the benefits and challenges associated with digital transformation in CRM:

A.Benefits:

Enhanced Customer Insights: Digital transformation enables organizations to gather and analyze vast amounts of customer data, providing valuable insights into customer behavior, preferences, and trends. These insights help organizations make data-driven decisions, personalize customer experiences, and improve overall customer satisfaction.

Improved Customer Engagement: Digital transformation allows organizations to engage with customers through multiple channels, such as websites, mobile apps, social media, and email. This multichannel engagement enhances customer interactions, increases brand visibility, and fosters stronger customer relationships.

Personalized Experiences: Digital transformation enables organizations to deliver personalized experiences by leveraging customer data and analytics. Personalization helps tailor marketing messages, offers, and recommendations to individual customers, enhancing customer engagement and loyalty.

Streamlined Processes and Efficiency: Digital transformation automates manual tasks, streamlines processes, and improves operational efficiency. It eliminates repetitive and time-consuming activities, allowing employees to focus on higher-value tasks, such as building relationships and delivering exceptional customer experiences.

Data-Driven Decision Making: Digital transformation provides organizations with access to real-time and historical data, enabling data-driven decision making. By analyzing customer data and trends, organizations can make informed choices regarding marketing strategies, sales efforts, and customer service initiatives.

Agility and Adaptability: Digital transformation equips organizations with the agility and adaptability needed to respond quickly to market changes and customer needs. By embracing digital technologies, organizations can stay ahead of the competition, introduce new products or services, and adapt their strategies to meet evolving customer expectations.

B.Challenges:

Data Security and Privacy: Digital transformation increases the amount of customer data collected and stored. Ensuring data security and privacy becomes a significant challenge, as organizations need to comply with data protection regulations and protect customer information from cyber threats.

Integration Complexity: Integrating various systems, platforms, and data sources can be complex and challenging during the digital transformation process. Organizations need to ensure seamless integration between CRM systems, marketing automation tools, customer service platforms, and other relevant systems to maintain a unified and consistent view of customer data.

Change Management and Employee Adoption: Implementing digital transformation requires a cultural shift within the organization. Employees need to adapt to new technologies, processes, and ways of working. Change management and providing adequate training and support to employees are crucial for successful adoption of digital transformation initiatives.

Legacy System Compatibility: Organizations may face challenges in integrating new digital technologies with existing legacy systems. Compatibility issues can arise, and organizations need to address these challenges to ensure smooth data flow and information exchange between systems.

Customer Resistance or Overwhelm: While digital transformation aims to enhance customer experiences, some customers may resist or feel overwhelmed by the increased digital interactions. It's essential for organizations to strike the right balance between digital engagement and maintaining personalized, human touchpoints to address customer preferences and needs.

Continuous Innovation and Upgrades: Digital transformation is an ongoing process that requires continuous innovation and upgrades. Technologies evolve rapidly, and organizations need to stay updated with the latest trends and advancements to ensure their digital CRM strategies remain effective and competitive.

By understanding and addressing these benefits and challenges, organizations can navigate the digital transformation journey in CRM more effectively, leveraging the advantages while mitigating potential obstacles.

IV. Enhancing Engagement and Loyalty: Digital transformation plays a crucial role in enhancing engagement and fostering loyalty in CRM (customer relationship management). Here's how digital transformation helps achieve these goals:

Multichannel Engagement: Digital transformation enables organizations to engage with customers across multiple channels, such as websites, mobile apps, social media, email, and chatbots. By providing diverse communication

touchpoints, organizations can meet customers where they are and allow them to engage through their preferred channels. This multichannel approach increases accessibility, convenience, and engagement, ultimately fostering stronger customer relationships.

Personalization: Digital transformation allows organizations to leverage customer data and analytics to personalize interactions and experiences. By understanding customer preferences, behaviors, and purchase history, organizations can tailor their messaging, offers, and recommendations to individual customers. Personalization creates a sense of relevance, increases engagement, and enhances customer loyalty by showing that the organization understands and values the customer's needs and preferences.

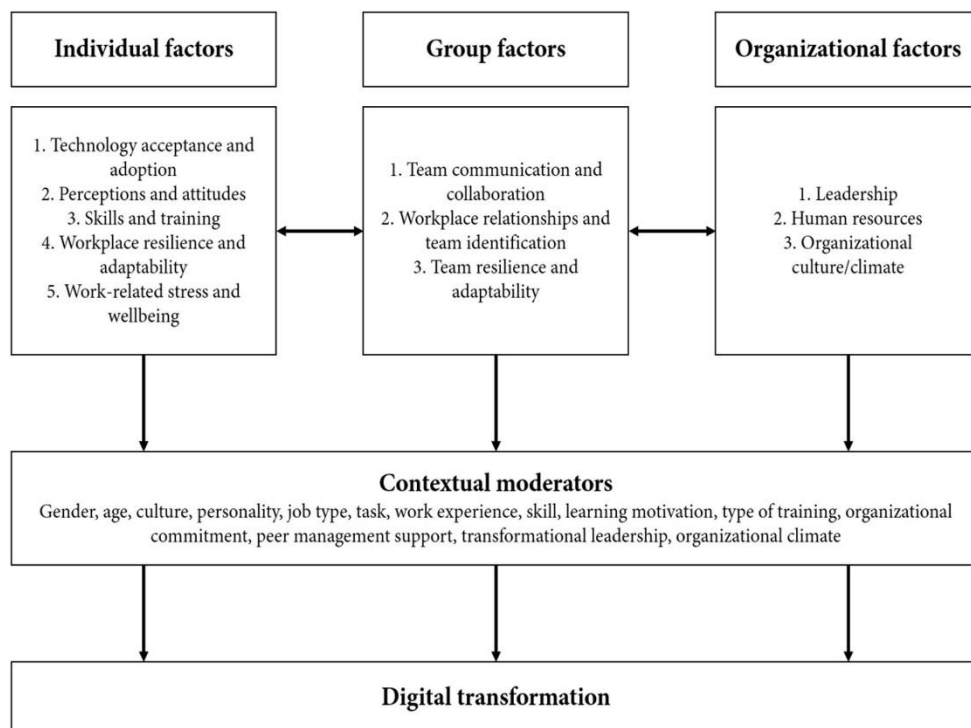


Figure 3 Digital Transformation process and factors

Data-Driven Insights: Digital transformation provides access to vast amounts of customer data and powerful analytics tools. Organizations can analyze customer data to gain valuable insights into customer behavior, preferences, and sentiment. These insights enable organizations to make informed decisions, identify opportunities for engagement and improvement, and implement targeted strategies to enhance customer engagement and loyalty.

Proactive Customer Service: Digital transformation enables proactive customer service through technologies like chatbots and AI-powered customer service platforms. Organizations can anticipate customer needs, address common inquiries, and provide real-time support. By being proactive in solving customer issues and providing prompt assistance, organizations can enhance customer satisfaction, reduce customer churn, and foster loyalty.

Seamless Customer Experiences: Digital transformation helps create seamless customer experiences by integrating various touchpoints and systems. Organizations can ensure that customer data, history, and preferences are accessible across channels, allowing for a consistent and personalized experience. Seamless experiences eliminate customer frustrations and enhance engagement, ultimately fostering loyalty and advocacy.

Customer Feedback and Engagement: Digital transformation enables organizations to actively gather and leverage customer feedback. Through online surveys, social media monitoring, and feedback mechanisms, organizations can collect valuable insights and understand customer sentiment. By engaging customers in two-way conversations and incorporating their feedback into product/service improvements, organizations can strengthen customer relationships and loyalty.

Loyalty Programs and Rewards: Digital transformation facilitates the implementation of loyalty programs and rewards systems. Organizations can leverage CRM systems and digital technologies to track customer interactions, purchases, and loyalty program participation. By offering personalized rewards, exclusive offers, and incentives, organizations can enhance engagement, drive repeat purchases, and foster long-term customer loyalty.

Continuous Improvement and Innovation: Digital transformation encourages organizations to continuously improve and innovate their CRM strategies. By leveraging emerging technologies, such as artificial intelligence, machine learning, and automation, organizations can enhance engagement by delivering personalized experiences, anticipating customer needs, and offering innovative solutions. Continuous improvement and innovation demonstrate a commitment to meeting evolving customer expectations, which in turn fosters loyalty.

V. Future of Digital Transformation in CRM: - The future of digital transformation in enhancing engagement and loyalty in CRM is dynamic and driven by advancements in technology, data analytics, and customer-centric strategies. By embracing these trends and leveraging emerging technologies, organizations can create personalized, seamless, and immersive experiences that strengthen customer relationships and drive long-term loyalty.

AI and Automation: Artificial intelligence (AI) and automation will continue to play a significant role in CRM. AI-powered chatbots, virtual assistants, and machine learning algorithms will enhance customer interactions, provide personalized recommendations, and automate routine tasks. Organizations will leverage AI to gain deeper insights into customer behavior, predict customer needs, and deliver more proactive and efficient customer service.

Customer Data and Analytics: The increasing availability of customer data and advanced analytics tools will drive the future of CRM. Organizations will leverage big data analytics, predictive modeling, and machine learning algorithms to gain actionable insights into customer behavior, preferences, and trends. This data-driven approach will enable organizations to make data-backed decisions, anticipate customer needs, and deliver personalized experiences.

Omnichannel Customer Experience: The future of CRM will focus on providing a seamless omnichannel customer experience. Organizations will integrate customer touchpoints across various channels, including websites, mobile apps, social media, messaging platforms, and physical stores. This integration will ensure consistent and personalized interactions, allowing customers to engage with the organization through their preferred channels and have a cohesive experience across different touchpoints.

Hyper-Personalization: The future of CRM will be characterized by hyper-personalization. Organizations will leverage customer data, AI, and machine learning to deliver highly tailored experiences to individual customers. Personalized product recommendations, customized messaging, and individualized pricing will become the norm, enabling organizations to establish deeper connections with customers and foster long-term loyalty.

Real-Time Customer Engagement: Real-time engagement will be a critical aspect of future CRM strategies. Organizations will leverage real-time data streams, AI-driven analytics, and automation to engage with customers at the right moment. Real-time personalization, instant customer support, and proactive outreach will enhance the customer experience and build stronger relationships.

Mobile CRM: Mobile devices will continue to dominate customer interactions, making mobile CRM a key focus in the future. Organizations will optimize their CRM systems and applications for mobile devices, enabling seamless access to customer data, analytics, and collaboration tools on the go. Mobile CRM will empower sales teams, customer service representatives, and marketing professionals to interact with customers anytime, anywhere.

VI. Conclusion: - In conclusion, digital transformation has emerged as a powerful catalyst for enhancing customer loyalty in CRM (customer relationship management). The research paper has explored various aspects of digital transformation in CRM, including strategies, tools, and its impact on customer engagement and loyalty. The findings of this research demonstrate that digital transformation enables organizations to leverage technology, data, and analytics to

deliver personalized experiences, streamline processes, and build stronger customer relationships. By embracing digital strategies, organizations can enhance customer engagement, foster loyalty, and drive business growth. Digital transformation enables multichannel engagement, allowing organizations to interact with customers through various touchpoints, including websites, mobile apps, social media, and email. This accessibility and convenience increase customer satisfaction and foster stronger connections. Moreover, digital transformation facilitates personalization and customer segmentation by leveraging customer data and analytics. By understanding individual customer preferences, behaviors, and purchase history, organizations can tailor their offerings and communications, creating a sense of relevance and value for customers. This personalization enhances engagement and fosters long-term loyalty. Digital transformation also enables organizations to leverage social media and sentiment analysis to gain valuable insights into customer sentiment and preferences. By actively listening to customer conversations, organizations can identify opportunities for engagement, address concerns promptly, and build positive brand perception. Integrated CRM systems play a vital role in digital transformation, ensuring seamless data flow and a unified view of customers across channels. This integration enhances organizational efficiency, enables personalized interactions, and facilitates data-driven decision-making. While digital transformation offers numerous benefits, it also presents challenges. Data security and privacy, integration complexity, change management, and legacy system compatibility are among the key challenges organizations face during digital transformation. However, with proper planning, implementation, and continuous improvement, these challenges can be overcome. In conclusion, digital transformation has reshaped the landscape of CRM, empowering organizations to deliver personalized experiences, foster engagement, and enhance customer loyalty. By embracing digital technologies, organizations can adapt to evolving customer expectations, leverage data-driven insights, and build strong, long-lasting customer relationships. As organizations continue to invest in digital transformation, it is essential to remain agile, stay updated with emerging technologies, and prioritize the ethical use of customer data. By doing so, organizations can thrive in the digital era, driving customer loyalty, and achieving sustainable growth in the highly competitive marketplace.

References: -

1. Berman, S. J., & Marshall, A. (2020). *Digital Transformation: The Essentials of E-Business Leadership*. Routledge.
2. Choudhury, M. M., & Harrigan, P. (2014). CRM to social CRM: The integration of new technologies into customer relationship management. *Journal of Strategic Marketing*, 22(2), 149-176.
3. Davenport, T. H. (2018). *The AI advantage: How to put the artificial intelligence revolution to work*. MIT Press.
4. LaValle, S., Lesser, E., Shockley, R., Hopkins, M. S., & Kruschwitz, N. (2011). Big data, analytics and the path from insights to value. *MIT Sloan Management Review*, 52(2), 21-32.
5. Laudon, K. C., & Laudon, J. P. (2020). *Management Information Systems: Managing the Digital Firm*. Pearson.
6. Lacity, M., Willcocks, L., & Craig, A. (2011). The IT outsourcing bandwagon. *MIT Sloan Management Review*, 52(3), 21-29.
7. Dhablia, D., & Timande, S. (n.d.). Ensuring Data Integrity and Security in Cloud Storage.
8. Dhabalia, D. (2019). A Brief Study of Windpower Renewable Energy Sources its Importance, Reviews, Benefits and Drawbacks. *Journal of Innovative Research and Practice*, 1(1), 01-05.
9. Mr. Dharmesh Dhabliya, M. A. P. (2019). Threats, Solution and Benefits of Secure Shell. *International Journal of Control and Automation*, 12(6s), 30-35.
10. Verma, M. K., & Dhabliya, M. D. (2015). Design of Hand Motion Assist Robot for Rehabilitation Physiotherapy. *International Journal of New Practices in Management and Engineering*, 4(04), 07-11.
11. Dhabliya, M. D. (2019). Uses and Purposes of Various Portland Cement Chemical in Construction Industry. *Forest Chemicals Review*, 06-10.
12. Lee, J., Kao, H. A., & Yang, S. (2014). Service innovation and smart analytics for industry 4.0 and big data environment. *Procedia CIRP*, 16, 3-8.
13. Mithas, S., Tafti, A., Bardhan, I., & Goh, J. (2013). Information technology and firm profitability: Mechanisms and empirical evidence. *MIS Quarterly*, 37(2), 1-28.
14. Rigby, D. K., Sutherland, J., & Takeuchi, H. (2016). *Embracing agile: How to master the process that's transforming management*. Harvard Business Review Press.

15. Sharma, A., & Gupta, R. K. (2019). Role of social media in customer relationship management. *International Journal of Business Information Systems*, 32(2), 236-249.
16. Srinivasan, A., & Ratchford, B. (2018). Big data and customer analytics for marketing decisions. *Journal of Marketing*, 82(1), 1-19.
17. Verhoef, P. C., Kannan, P. K., & Inman, J. J. (2015). From multi-channel retailing to omni-channel retailing: Introduction to the special issue on multi-channel retailing. *Journal of Retailing*, 91(2), 174-181.
18. Wang, D., Wan, L., Zhang, D., & Zheng, X. (2019). The impact of big data analytics on firms' customer relationship management. *Information Systems Frontiers*, 21(2), 431-446.
19. Xu, F., Li, Y., Li, D., & Zhang, X. (2019). Customer relationship management capabilities and firm performance: The mediating role of customer value co-creation. *Journal of Business Research*, 101, 602-614.
20. Zhou, T. (2019). Impact of big data on customer relationship management: Evidence from hotels. *Journal of Travel Research*, 58(7), 1240-1255.