



# CRM – DIGITAL TRANSFORMATION DRIVEN OR DIGITAL TRANSFORMATION DRIVER?

## Abstract

Over the years, the area of customer relationship management (CRM) has undergone significant change from being a way to log sales prospects and contacts into an enabler of business transformation. The adoption of digital technologies such as social, mobility, analytics, and cloud, shaped CRM into a driver of customer engagement, intuitive sales pipelines, higher revenue, and more. With these spinoffs, CRM has emerged as one of the pivotal platforms that demonstrate tangible value from digital transformation.

This paper looks at the evolution of digital transformation and CRM, and considers how their journeys have become intertwined such that each complements the other. It also explores the need for CRM to continue evolving in order to sustain itself as a driver of transformation, and not merely be driven by transformation.

## Overview

A bird's-eye view of digital transformation programs often shows CRM as an important pillar. CRM technologies are helping companies leverage customer data to enhance customer engagement and experience. However, looking at the scope of digital transformation within CRM sometimes uncovers a different picture and raises some pertinent questions:

- Is CRM, which is one of the main levers of digital transformation, not being transformed itself?
- Can CRM continue to drive transformation or will it be driven out in the transformational shift and become irrelevant when the final picture emerges?
- Can CRM eventually evolve into human relationship management (HRM)?

Any attempt to answer these questions requires a separate analysis of the evolution of digital transformation and CRM from their inception till the present. This analysis can uncover how these two areas have become intricately connected to provide a strong foundation for tomorrow's enterprises.

## The evolution of digital transformation

The onset of digital and the fourth industrial revolution is one of the most impactful disruptions for the world of business. This multi-dimensional impact has affected social, economic and behavioral aspects of users, consumers and organizations. It is blurring the very definitions of industries and the

boundaries within which they operate. It is challenging the need for national governments, national currencies, central bankers, and other authorities. In this competitive landscape, incumbents have to evolve rapidly if they are to keep pace with start-ups. This business transformation strategy is popularly known as digital

transformation.

To begin with, it is important to define the transformation strategy and roadmap before deciding what technical capabilities are needed. Let us examine these two aspects – strategy and technical capabilities – in greater detail.

## The evolution of digital transformation

Digital transformation deeply affects four key areas: customers, competition, data, and value proposition models.

**Customers:** Previously, the customer was considered a mass market that could be targeted by one-way broadcast marketing to support economies of scale. Today, this market has become a dynamic network driven by two-way communication to enhance economies of value. Over the years, there has been a shift from product-centricity to customer-centricity, which is now evolving into value-driven centricity whereby consumers and organizations thrive together. Customer journeys are no longer based on traditional marketing channels but omni-channel ones.

**Competition:** Until a few years ago, competition was limited to predefined

industry boundaries with clear differences between partners and competitors who had unique product features. Today, competition has become layered with no defined boundaries and little distinction between partners and competitors. The common goal is to provide value to the customer. Hence, organizations may compete with a brand in a particular segment or territory and yet cooperate with them in another segment or territory.

**Data:** Organizational data used to be structured in nature, very expensive to generate and store, and managed in silos. It was hardly considered as an organizational asset. The emergence of new technologies is now allowing organizations to cost-effectively generate, store, share, and use structured as well as unstructured

data. Today, data is the foremost asset of organizations, and the availability and utilization of quality data is the key success lever. While there is lesser data being generated from defined touchpoints, more data is generated through informal conversations and interactions outside of an organization's physical boundaries on social platforms, sensors and mobile devices. This data is being used to make predictions, uncover hidden patterns and understand consumer behavior so companies can differentiate themselves in the market.

**Value proposition models:** Value proposition was mostly defined by the industry and not prone to major changes. Today, it is characterized by dynamic customer expectations and the need to tap into opportunities that deliver greater value to consumers. Earlier, stable value propositions allowed organizations to rest on their market reputations. Today, organizations that do not differentiate their brand will find themselves losing customer mindshare to agile disruptors.



## Technical capabilities for digital transformation

At a technical level, digital transformation is driven by the combined power of Moore's law of computing capabilities, Metcalfe's law of pervasive connectivity and Glider's law of increased communication bandwidth. The convergence of these three laws has led to the evolution and adoption of a new technological paradigm called SMACI – social, mobile, analytics/artificial intelligence (AI), cloud, and Internet-of-Things (IoT).

Emerging technologies like blockchain, augmented reality (AR), virtual reality (VR), and 3D/4D imaging along with recent innovations in quantum computing and neuroscience have further disrupted the business landscape. All of these are strong

change drivers collectively as well as individually.

For instance, social and mobile platforms are already visible in every facet of our society. The combination of AI, blockchain and IoT will change the internet-of-information into the internet-of-value. Quantum computing can revolutionize the way we process and store data by taking existing cloud computing capabilities to higher levels. Data generated through IoT sensors and stored within secure blockchains can be processed with AI capabilities to provide contextual, behavioral, ethnographic, and psychographic patterns that will facilitate proactive decision making.

Human and machine collaboration will bring about unprecedented productivity and efficiency improvements. AR/VR is already enabling new reality experiences at the click of a mouse. Advances in neuroscience may allow us to extract information from the brain, expand our senses, alter behavior, and influence the entire thought process. 3D/4D capabilities will not only improve imaging but may even transform the entire manufacturing industry through additive manufacturing and multidimensional printing techniques.

Thus, the strategy to implement new technologies should go beyond assessing how these impact the current business model and look at how they might create the future organizational model.



## The evolution of CRM from Rolodex to cloud

Now, let us focus on the post-industrial revolution when CRM started becoming relevant within the organized industrial sector.

**CRM Wave 1** – Many of us believe that CRM is a byproduct of the digital revolution that began in the 1980s with the proliferation of personal integrated circuit-based digital computers. However, even in the pre-digital era, Rolodex (a physical rotating file device) was used by sales personnel to keep track of customer/business contacts, ensure quick reach to important notes/details and support sales strategies. While digital CRM systems were yet to take shape, CRM as a strategy and as a physical tool was present even before the invention of the personal digital computer.

**CRM Wave 2** – Rolodex became obsolete in the 1980s when commoditized personal computers made their way into every household. Around this time, organizations began storing prospect

and customer data in databases, albeit siloed ones. Direct marketing evolved into database marketing with the emergence of metrics like customer lifetime value and applied financial modelling. Here, marketing strategies included campaign management, sales channel automation and marketing analytics through statistical techniques.

**CRM Wave 3** – By the early 1990s, packaged on-premises CRM products (like Siebel which was launched in 1993) became available and brought visibility into sales pipelines. These integrated siloed customer data, allowing a single customer view. Database marketing components were automatically inherited and supplemented with data integration functionalities. There were also attempts to automate the sales force and certain features of ERP systems were included within these products. Despite being an improvement over pure-play database marketing techniques, these CRM products

were on-premises, which limited their functionality for sales teams that were becoming increasingly mobile thanks to the introduction of mobile devices by the end of the decade.

**CRM Wave 4** – In the late 1990s, cloud computing was emerging, laying the initial infrastructure for the current wave of digital transformation. Despite being a nascent concept, cloud resonated with organizations due to its promise of efficiency, scale and mobility. Soon, companies were developing cloud-based CRM SaaS products to leverage this advantage for their sales teams. Salesforce was launched in 1999 as the first-ever cloud-based CRM SaaS product followed by Microsoft Dynamics and SugarCRM. Enriched functionality, integrated views, better analytical capabilities, support for mobile devices, and social integration became the new norm. Current CRM systems lie in this wave.

## The current state of CRM – Driver or driven?

While the emergence of CRM as a software product dates back to 1980, digital transformation began after 2000 with the introduction of SMACI. By then, CRM had become the perfect tool to implement digital and customer-centric initiatives and, by default, digital transformation strategies included CRM transformation as a core component.

On the one hand, CRM used new digital technologies (like cloud) to become competitive and more relevant. On the other hand, digital transformation

initiatives used CRM as a tactical way to showcase value. For instance, implementing digital solutions for CRM helped organizations increase customer engagement. At the strategic and implementation levels, digital transformation and CRM complemented each other effectively during the initial years of the digital wave.

However, digital transformation was yet to unveil its scope of disruption for business, human engagement and buying psychology.

In 2010, 'global villages' began to emerge with increased technology use. The number of mobile devices had already surpassed the global population. Social media was gaining popularity, driving a different level of connectedness. The development of machine learning allowed software, not just humans, to analyze behavior, predict actions and drive decision-making. Innovations in medicine allowed electronic chips to be integrated within the human body, just as they integrate with electronic devices.

Meanwhile, changes in CRM were mostly happening in peripheral areas by integrating new modules/features. However, CRM was still tied to the same societal and organizational structure and its core framework had not changed. Without the right approach, the driver of digital transformation may well become driven by the digital transformation brought by the technologies emerging in 2010.



## Imperatives for innovation in CRM

To ensure that CRM continues to be a relevant transformation driver in a rapidly evolving technological landscape, organizations must address the following challenges at the product level:

**1. Linear to non-linear** – Previously, CRM tended to follow a linear path. Marketing teams tapped into new opportunities and generated leads for the sales teams who then closed deals, which were later serviced by customer service teams. This was the marketing funnel based on the assumption that buyer journeys start at the beginning of funnel and they proceed through all the steps before becoming a loyal and long-term asset for the organization. In a digital marketplace, buyer journeys can begin at any stage through any channel and device. They can abandon the interaction at any level, and re-enter and complete the purchase at any moment due to unpredictable factors. These journeys differ not only between people, but even between products for the same customer. Thus, non-linear buyer journeys need an individualized approach for closure.

Until now, CRM systems were built on the linear processing model, which cannot cater to the complex buying patterns of individual customers. Many CRM products are trying to become agile by leveraging the voice of customer from different channels along with AI/ML techniques for greater functionality. However, these approaches try to integrate new capabilities (like social, IoT and AI/ML) through peripheral areas instead of focusing on redesigning and rebuilding the core framework for sustained growth.

**2. Silos to agility** – One of the characteristics of digital transformation is how it replaces hierarchical decision-making with agile processes. Agility disassembles vertical structures while promoting horizontal integration and

cross-functional collaboration across departments.

The era after the first industrial revolution saw rapid growth within organizations. To ensure policies were followed and resources managed effectively, departmental silos were created. However, this led to differing priorities, process inefficiency and limited information flow across the organization, all of which affected productivity. Developments in CRM strategies and products, too, followed the same approach. CRM teams placed sales as the core function and gradually shifted towards customer support, marketing and other modules to improve customer engagement. CRM products often provided piecemeal solutions for specific departmental challenges instead of cohesive solutions that catered to organizational needs.

Today, CRM systems integrate better than previous versions at the levels of data and information. However, operationally, these still follow the old departmental structure with minimal flexibility to support agile organizations and cross-functional ways of working. As organizational silos break, CRM systems must prepare to handle the transformation of data into cross-company neural customer data. Here, the organization's capability to identify unique patterns from the sea of neural customer data and create niche sales engagement apps will be the real differentiator between winners and losers.

**3. Comprehensive automation** – CRM systems track organizational experiences over a period of time that are recorded as organizational learning. However, the integrity of this learning depends on capturing the right data, completely. The onset of digital transformation has led to large amounts of online and offline data

being generated through interactions between individuals and between customers and brands. This data can also stem from multiple channels (emails, notes and mobiles) at high velocity. Thus, there is a pressing need to identify, evaluate, filter, enrich, and record data as organizational knowledge.

CRM systems often rely on manual data entry to capture such data, which leads to inaccurate and incomplete information. Some tools can help automate the process, but these do not comprehensively address the challenge. Organizations must find effective ways to automate the capture of big data across consumer activity and interactions in order to equip their CRM systems with the right information so they can make the right decisions at the right time across any channel.

**4. Pay per use models** – Traditionally, business models are based on the premise of product ownership: Organizations sell products for cash or credit that are bought and owned by customers. Digital transformation is upending this model into a pay-per-use ones thanks to new technologies that make it possible. Some examples here are Uber, AirBnB and Ola whereby customers pay for a service rather than a product and the ensuing liability that comes with it.

Traditional CRM systems were developed on the old model of transferring ownership of products and services through marketing and selling activities. These legacy systems cannot support pay-per-use or subscription-based models that are based on metering the use of product or service and charging the customer only for what has really been used. Enabling this requires added functionalities like real-time monitoring to track real-time use, flexible billing and proactive servicing and support. Thus, CRM systems must

evolve to support quick experiments and early deployments of pay-per-use business models.

**5. Deep personalization** – Product and service personalization is gaining popularity among organizations, not just for customers but employees as well. In CRM, personalization helps customize buying journeys, product choice and service delivery, particularly in non-linear and multi-threaded purchasing processes. However, current CRM systems maintain specific sets of consumer profiles and try to force every individual into these personalization buckets. Archaic information is used to attract customers. Customer journeys and scope of personalization are often reactive, leading to low satisfaction and conversion.

Digital disruption has led to flurry of new products and services entering the market. To gain mindshare, organizations must grab customer attention with relevant and timely information and simplified buying processes that close the deal. Thus, CRM systems must find ways to use predictive analytics, machine learning and AI to create unique customer experiences with differentiated pricing schemes. Moreover, as customer experience quickly replaces product specification and pricing as a brand differentiator, CRM systems must enable enriched, intelligent and dynamic customer profiles to meaningfully engage customers at every touch point. Individualized customer journeys, personalized content, relevant services, post-sale support, and brand engagement

experiences will be the key to attracting customers. Next-gen CRM systems will also have to enable personalization for sales and support employees so they can personalize their tabs and screens and better navigate large pools of information to cater to customers.

**6. Effective humanization of intelligent machines** – The adoption of cyber-physical systems to serve customers and even employees is spurring rapid improvements in how humans interact with machines. Machine learning, natural language processing (NLP) and optical character recognition (OCR) use logic to analyze behavioral patterns and leverage this learning through automated interfaces, machines and bots.

Traditional CRM must transform into conversational CRM to enable meaningful conversations between bots and humans. The spoken or written word represents only a part of our communication. Hence, real-time capabilities that understand context and intent must be developed and integrated with CRM systems. This will require integrating technologies like voice processing, text and facial recognition with chatbots that can then tap into organizational learning to effectively handle customer support tasks. At this stage, human intervention will be relegated to specialized activities like sophisticated agent customer interaction. Innovation in product recommendation features should identify customer need, next possible purchase and preferred communication channels while recommending the next best sales

action. Rather than be a niche functionality, this should become the norm for CRM systems.

**7. Understanding the voice of things** – IoT-enabled sensors in connected products are enabling continuous communication between an organization and its products. It has become vital to monitor product usage and performance data to understand what value is being delivered to customers. Sensors and monitoring technologies can provide continuous feedback loops that will pave the way for improving product capabilities and services. Thus, even classical models (where products are handed off between departments like production, sales, marketing, service, and IT) are giving way to dynamic organizational models governed by continuous coordination across functions.

Traditional CRM systems built on siloed architecture are not equipped to support the change driven by digital transformation. Rather than implementing specific solutions for individual departments, there should be a digital thread running across all functional areas. Instinctual CRM should be replaced by data-driven CRM through real-time feedback and historical learning. CRM systems should be able to collect, process, and assimilate IoT data gathered from existing and potential customers, which can then be used to take proactive action. CRM functionalities must be enhanced tap into insights from the voice of things in order to drive meaningful engagement.



## Conclusion

Today, digital disruptors are hitting the billion-dollar mark within a mere 5 years, a feat that used to take traditional organizations decades to achieve. It is estimated that nearly half of Fortune 500 organizations will not be around in a decade because they will be unable to keep pace with digital disruption.

Digital transformation envisioned a shift from product-centricity to customer-centricity. Naturally, CRM became one of the key drivers of digital transformation across all touch points. With customer centricity being the focal point of any transformation strategy, CRM will continue to align with digital transformation at a strategic level.

However, at the technology and product level, CRM needs rapid developments for it to remain a key business driver. Digital transformation is helping companies adopt new technologies like mobile, big data, AI/ML/NLP/OCR, cloud, IoT, blockchain, AR/VR, and 3D/4D printing techniques. Unless CRM players reimagine their core framework, integration with such technologies will remain limited to the periphery. CRM must become more integrated, structurally agile, deeply automated, personalized, and proactive if it is to be a driver of transformation, and not merely driven by transformation.



## About author



**Deepak Thukral**, *Principal Consultant, Infosys*

**Deepak Thukral** is a Principal Consultant with Infosys with 18+ years of experience in the IT industry. He is associated with Infosys Salesforce practice and focuses on digital transformational engagements for multiple clients. As a Certified Agile Practitioner, Deepak has rich experience across retail, banking/finance, engineering and health insurance domains. His functional expertise ranges across digital transformation, CRM, IoT and agile coaching. He has worked on various international assignments across all phases of software development in offshore as well as onshore models with various roles and responsibilities.

Connect with him at [Deepak\\_Thukral@infosys.com](mailto:Deepak_Thukral@infosys.com) or <https://www.linkedin.com/in/deepak-thukral-20893213/>

For more information, contact [askus@infosys.com](mailto:askus@infosys.com)



© 2019 Infosys Limited, Bengaluru, India. All Rights Reserved. Infosys believes the information in this document is accurate as of its publication date; such information is subject to change without notice. Infosys acknowledges the proprietary rights of other companies to the trademarks, product names and such other intellectual property rights mentioned in this document. Except as expressly permitted, neither this documentation nor any part of it may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, printing, photocopying, recording or otherwise, without the prior permission of Infosys Limited and/ or any named intellectual property rights holders under this document.