

**CUSTOMER EXPERIENCE**

# **AI AND ANALYTICS PAVES THE WAY TO MAXIMIZE DELIGHTED CUSTOMER EXPERIENCE**

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## ABSTRACT

The customer experience competitive landscape is no more about selling products or services to woo customers. The focus is shifting towards selling experiences. Disruption in digital technology has opened up new avenues to create, deliver, manage, and consume services at speed and scale. People have become accustomed to technology and are incessantly raising their expectation. Companies need to adapt to these expectations or succumb to competition.

Customer experience is the next battlefield, and the stakes are high. Customers no longer want to pick up the phone and endlessly wait in the queue to report/resolve their issues. Having an Omni-channel strategy is very important as today customers choose when, where, and how they want to connect and interact. Every company realizes the importance of delivering experiences that differentiates them from competitors.

"Need for speed" is not only synonymous with games and races but also increasingly associated with customer experience". Customers will value consistency, transparency and control more than ever.

Some are learning this the hard way. For instance, when a flight passenger's experience went viral on social media, United Airlines had a brand crisis, in which \$1.4 billion was lost. Be it any B2C companies, at every customer interaction touch-point, it is important to gain customers' trust and build on loyalty. With social media access at fingertips, customer's experience spreads like wildfire especially the bitter experiences.

"Need for speed" is not only synonymous with games and races but also increasingly associated with customer experience. Customers will value consistency, transparency & control more than ever. Emerging technologies are enabling companies to deliver hyper-personalized experiences to build lasting relationships. Customer experience has become the deciding factor for whether or not to keep doing business with you.

GREAT SERVICES  
TOP NOTCH  
VERY GOOD  
I AM HAPPY  
SUPERB  
HIGH QUALITY  
EXCELLENT  
SUPERFINE  
IMPRESSIVE  
FIVE STAR PRODUCTS & SERVICES  
PERFECTLY

## CUSTOMER EXPERIENCE IS THE NEXT BATTLEFIELD

Customer experience (CX) is going to become a single metric for differentiation. Investing to improve CX has become the top agenda in the road map of the majority of C level executives reports Gartner.

Improving customer experience not only ensures that you have loyal customers; it also brings new customers and increases top-line revenues. Focus towards improving

CX also involves assessing and optimizing all the services and business processes, which enhances the bottom-line revenue leading to an overall increase in annual revenue.

Understanding your customer has to be a high priority task and rightly so as customers want exclusive attention and individualized services to accommodate their likes and preferences in consuming services.

Consumers want personalized experience

69 %

Companies focusing on CX report increase in annual revenue

84 %

Executives believe they'll compete on CX

81 %

Internet Retailing   Dimension Data   Gartner

### Major Growth Drivers & Market Information



Figure 2: Key areas of focus

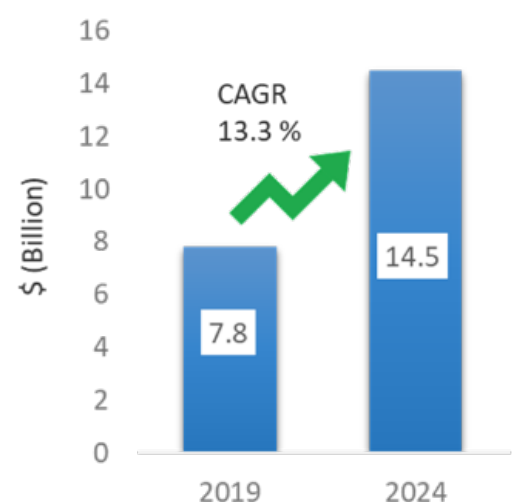


Figure 3:  
Customer Experience Management Market Worth  
Source: Markets&Markets

“The customer experience management (CEM) market is projected to grow from USD 7.8 billion in 2019 to USD 14.5 billion by 2024, at a Compound Annual Growth Rate (CAGR) of 13.3% during the forecast period” .These drivers allow companies to offer a wide range of new and improved services catering to customer’s need. Also, help in retaining customers and tapping unexplored markets



## CEM ROLE IN DRIVING BUSINESS

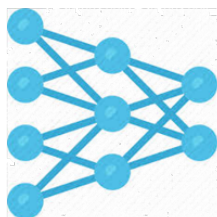
Customer experience management is about an ever-evolving customer expectation. It is gaining importance across various business functions. Also, there arise opportunities for companies to improve their revenues by optimizing and streamlining service delivery and business processes.



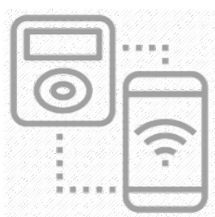
AI



Analytics



ML



Device Management Protocol

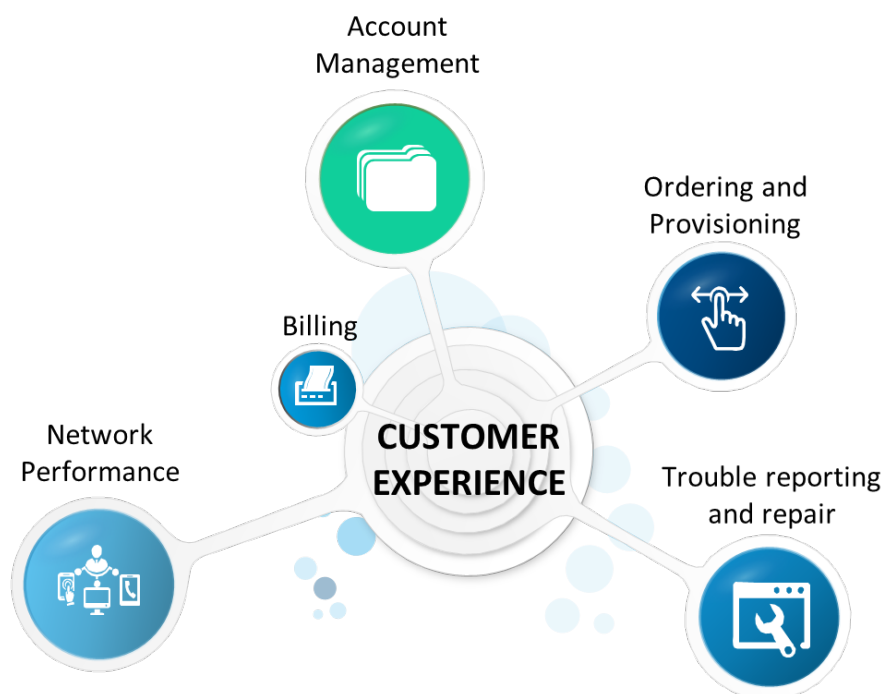
Figure 4: Technology Enablers

The disruption in technology and ease of accessibility is steadily rising customer expectation, and they expect their service providers to deliver solutions that reach well beyond the traditional boundaries. The convergence of the video systems and availability of connected devices is a reality that has unearthed the possibility of creating new ways of differentiation by offering unique features. Technologies like AI, Data analytics, and device management standards like TR369 are becoming critical enablers in realizing solutions for improving customer experience and reducing operational costs through automation, remote monitoring, and

management of devices and services. Predictive analytics and self-care applications will drive hyper-personalization and assisted diagnostics. Automation will accelerate with ML, AI, and neural networks giving the ability to make real-time data-driven decisions such as next best action.



The key focus areas for customer experience improvement are customer touchpoints. As per a study by AT&T, the primary customer touchpoints can be classified into five areas



AREA OF FOCUS	REASONS FOR INVESTING
Account Management	Improve customers business velocity through proactive planning, stewardship and process enhancements
Ordering and Provisioning	Deliver solutions faster by reducing end-to-end cycle time
Billing	Improve accuracy and simplify billing management capabilities
Trouble reporting and repair	Resolve service issues quickly and proactively alert and status customers
Network Performance	Provide global network reach and network availability SLAs.

Table 1: Focus on Customer Touchpoints



The customer experience management is done by identifying the pain points for a customer on each of these endpoints. On a broader sense, this can be achieved by assessing the performance on multi-dimensions in these touchpoints and suggesting the improvements on the workflows for each of these areas.

For example, a hypothetical assessment of a Telecom provider would be as follows:

Touchpoint	Pain Points	CEM Objectives
Account Management	<ul style="list-style-type: none"> <li>Invoice</li> <li>Document Management</li> <li>Manual Effort</li> <li>Identifying High-value customers and preventing churn.</li> <li>Omni channel experience</li> </ul>	<ul style="list-style-type: none"> <li>Invoice capture and approval solutions</li> <li>Document Management solutions</li> <li>Automation solution in invoice processing and payment execution</li> <li>End to End Solutions</li> </ul>
Billing Management	<ul style="list-style-type: none"> <li>Multiple billing systems for different services (voice, data, video)</li> <li>Complexity in managing the services through Customer/ MSO Vendors</li> <li>Lack of accuracy in revenue sharing and various risks distribution across channel partners/distributors/Field Operations</li> </ul>	<ul style="list-style-type: none"> <li>A single billing system for multiple next-generation services such as voice</li> <li>data, video, interactive on-demand</li> <li>Easy management services between Customer/MSO vendors</li> </ul>
Provisioning	<ul style="list-style-type: none"> <li>Supplier order management</li> <li>Capacity Management</li> <li>Configuration of Managed elements</li> <li>Reducing provisioning time</li> <li>Bring Your Own Modem</li> </ul>	<ul style="list-style-type: none"> <li>Automated Supplier order Management</li> <li>Automated Capacity Management</li> <li>Automated configuration of managed elements</li> </ul>
Trouble Reporting and Repairs	<ul style="list-style-type: none"> <li>Unmanaged customer environment</li> <li>New devices into the customer environment</li> <li>Interoperability with new devices and technology</li> <li>Improving trouble ticket management.</li> <li>Virtual assistants(Self-service online)</li> </ul>	<ul style="list-style-type: none"> <li>Auto healing feature for CPE devices</li> <li>Device logs to be automatically updated to the cloud in case of crash or any events created</li> <li>MSO admin tools to diagnose the home user environment</li> </ul>
Network Performance	<ul style="list-style-type: none"> <li>Network performance during peak load</li> <li>New devices into the customer environment</li> <li>Interoperability with new gadgets and technology</li> <li>Improving network uptimes</li> </ul>	<ul style="list-style-type: none"> <li>Live probing of Network Health</li> <li>Live data analysis from managed network</li> <li>Proactive capacity monitoring of network and services</li> <li>Dashboard to provide a historical view of the network throughput daily, weekly, monthly and yearly</li> </ul>

Table 2: Asesment of Operator for CEM implementation



## The critical industry applications in each of the different areas

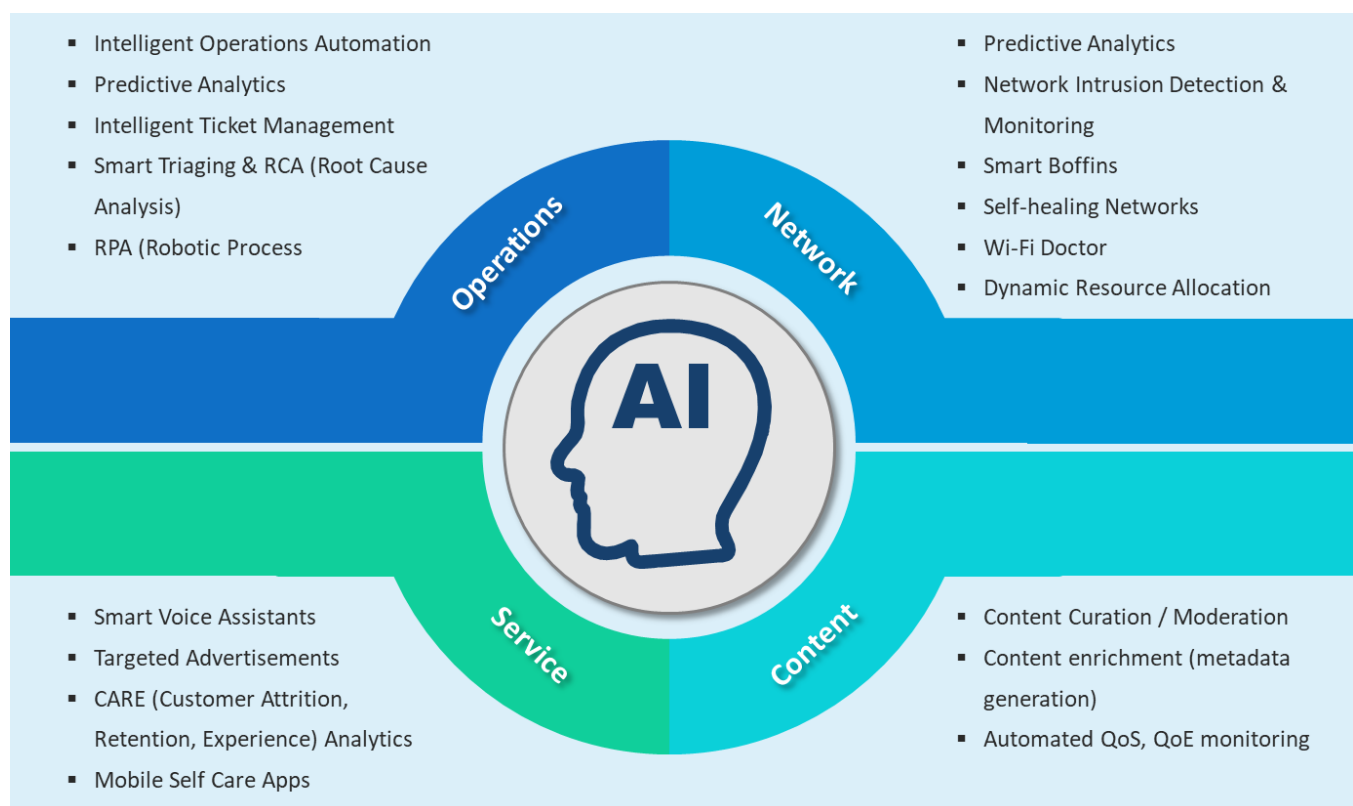


Figure 2: Industry Applications

For Operators, Customer Experience Management (CEM) must consider aspects such as quality of service, service monitoring, incident management, consistent performance, and dynamic network planning.

Any solution development towards improving CX or enhancing operational efficiencies rely on having the right data in the form of logs. Logs are one of the most critical sources; they contain a wealth of information, that help in managing systems, processes, operations, thereby ensuring in delivery of seamless experiences. Most operators have different assets like network operations center; customer, product/services, and other information reside in CRM software, ERP systems, and separate data siloes. Integrating all these data is a technical challenge.

With the explosion of connected devices in the IoT ecosystem, there is a massive surge of data generated from sensors, transactions, services, applications and connections, companies with disparate data sources need to have right the mechanisms for data collection from systems/devices. Other challenges arise with the historically available data such as data adequacy – collecting the right data, data cleanliness - collecting useable data, data sufficiency - having the right amount of data for analysis, storage, and usability. Besides, how this data can be used or monetized is a question that consistently persists. To develop CEM solutions at speed and scale choosing a skilled partner having domain understanding and knowledge of right tools and algorithms to use is a crucial step

# CUSTOMER EXPERIENCE MANAGEMENT PLATFORM

The right CEM platform must correlate customer data, along with other operational data and provide holistic insights by unifying all the disparate sources; right set of tools to monitor interactions across all touchpoints a customer has with your brand. Additionally, data collected through these tools will help in predicting behaviors, issues, and help in proactive resolution. As Machine Learning (ML) & AI continue to evolve, they provide powerful means of analyzing the data and unearthing hidden insights. Automation frameworks ensure consistent service assurance at all times and speed up the issue resolution process.

The first step of a good CEM platform design is to have necessary agents capable of collecting data from multiple sources remotely.

- Remote monitoring and management agents assure that the data is periodically collected
  - Transactional data
  - Operational data
  - Emotive data
- Effective data management solutions will ensure security and integrity of the data collected.
- Advanced AI/ML-based analytics models such as predictive models/anomaly detectors help in faster insight-driven decision-making.
- As most of the data is stored in legacy systems, and there will be new data generated from connected devices scalability, security & backward compatibility must be the vital architectural considerations.
- Such a single, unified & holistic platform will enable to develop various workflows for different stakeholders
- The CEM platform architecture must also be future proof, as self-service applications will be the next stage of customer experience transformation, where each stakeholder associated with the service will have their own set of tools and dashboards for faster access to information and removes the dependency between teams.
- Provide everyone with the right information and drill-down capabilities to speed up troubleshooting processes and decrease mean time to repair.
- Use built-in self-healing capabilities, prioritize your incidents, remotely solve problems more quickly, and avoid overhead costs by saving on unnecessary truck rolls.
- Active feedback collection from customers is an important aspect that cannot be ignored, need to have effective applications such as a field trial management, which provides an intuitive way of collecting structured and routine feedback from customers about the field issues.
- Advanced log analysis provides a powerful mechanisms for identifying and resolving issues at the node level before rolling out upgrades to the entire customer base

## CONCLUSION

Focusing on customer experience management (CEM) is the most important investment a company is making today. The race for relevance is on, and the stakes are too high. In this millennial age, where social media is one of the most important platforms to express opinions. A delighted customer is an essential asset to the company. Technology has empowered customers and changed the customer service landscape. Having cross-functional visibility within the company provides all the stakeholders with a wealth of information and tools to ensure faster issue resolutions. The right combination of vision, technology, and partner(s) will not only make sure in achieving delighted customer experiences but also ensure higher revenue returns. Corporate leaders in every industry vertical have realized the importance of Artificial Intelligence required for the much-needed digital transformation.



AI is an essential component in building effective CEM solutions. There is a considerable potential to enhance workflows, improve efficiencies, and deliver hyper-personalized services. Automation is here to stay and continue to permeate into all aspects of businesses. With the power of AI, one can accurately measure all the factors contributing to a better or degraded customer experience. Tata Elxsi's Customer Experience Management Service is a secure, scalable and distributed solution for enhancing customer experience & improving Operational Efficiency.

Developed using latest device management standards & deep learning algorithms to automate, monitor and manage services at speed and scale. There is a clear sign that CEM is the next battlefield, if you are not acting on it today, you will be playing catch-up.

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To know more about our media and broadcast offerings click here



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