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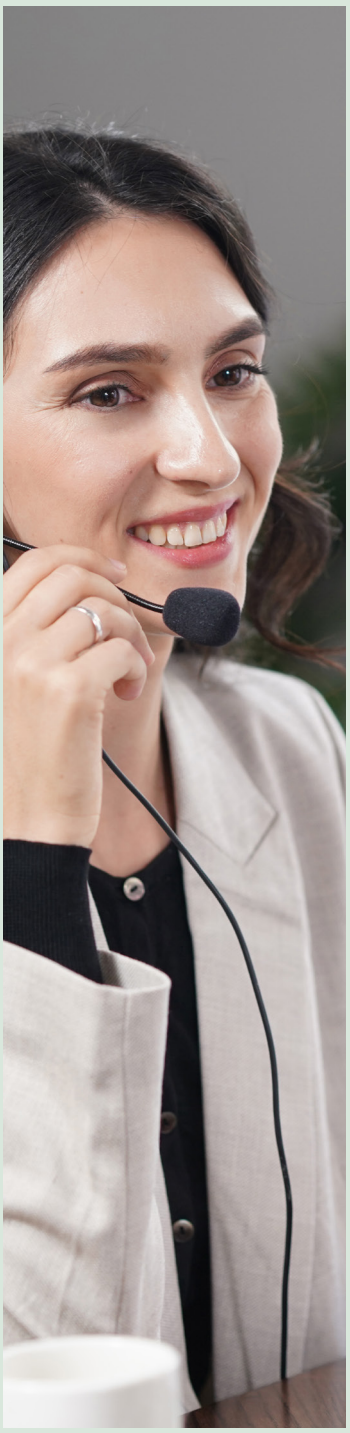

PREDICTIVE CUSTOMER INTERACTION MANAGEMENT – BEYOND MANAGING CUSTOMER CONVERSATIONS

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Introduction: Changing technology landscape and customer expectations

Why wait until your customer provides the reason for contacting you?

Why depend on customer survey feedback, CSAT score to derive customer service strategies?

From walking-in to omni-channel, customer interaction management has evolved significantly over the decades, driven by technological advancements and changing customer expectations. Historically, call centers were seen as a medium to handle basic customer queries and resolve issues. With the advent of digital channels & bots, contact center landscape became more sophisticated, and as a result, more challenging to manage customer conversations seamlessly across channels.

Customer expectations evolved over time; they now expect consistent, seamless, personalized service irrespective of the interaction channel. Contact centers, in turn, started adopting innovative technologies to meet the demands for personalized service. Understanding customer conversations holistically rather than individual interactions is particularly important to meet changing customer needs. Analyzing historical interactions is the primary step to predicting customer intent and personalizing service strategies. Traditionally, organizations used current interaction data/context to make any routing or business decisions. In other words, decisions were not made holistically considering customer behavior and preferences. This led to the following key challenges:

- Inability to predict why customers wish to interact makes it difficult to personalize service
- Lack of context awareness of the recent interaction(s) can lead to poor customer experience
- Lack of agent empowerment based on interaction history prevents serving the customer more efficiently

These challenges created an opportunity for Predictive Customer Interaction Management (PCIM), a complete shift from a reactive to a proactive model of customer interaction management. PCIM is a strategic framework that enables the inference of intelligent insights from customer conversations. It involves applying data analytics techniques on survey feedback and interaction data to anticipate customer behavior and understand their preferences/expectations. This proactive approach is increasingly important in today's customer service context as it not only improves customer experience but also operational efficiencies and optimizes operational costs.

Customer interaction data source – Structured and unstructured information across channels

PCIM starts by aggregating all customer touchpoint conversations spread across multiple solutions in an organization.

While the customer survey or feedback captures the mood and sentiment of the recent interaction, it does not effectively capture the customer's experience holistically across the interaction journey. Organizations need to look beyond survey data to understand the customer journey comprehensively. This can be achieved by consolidating all interaction data sources available across channels.

The customer interaction journey feedback, stated or unstated, broadly falls under four categories, as illustrated in Figure 1:

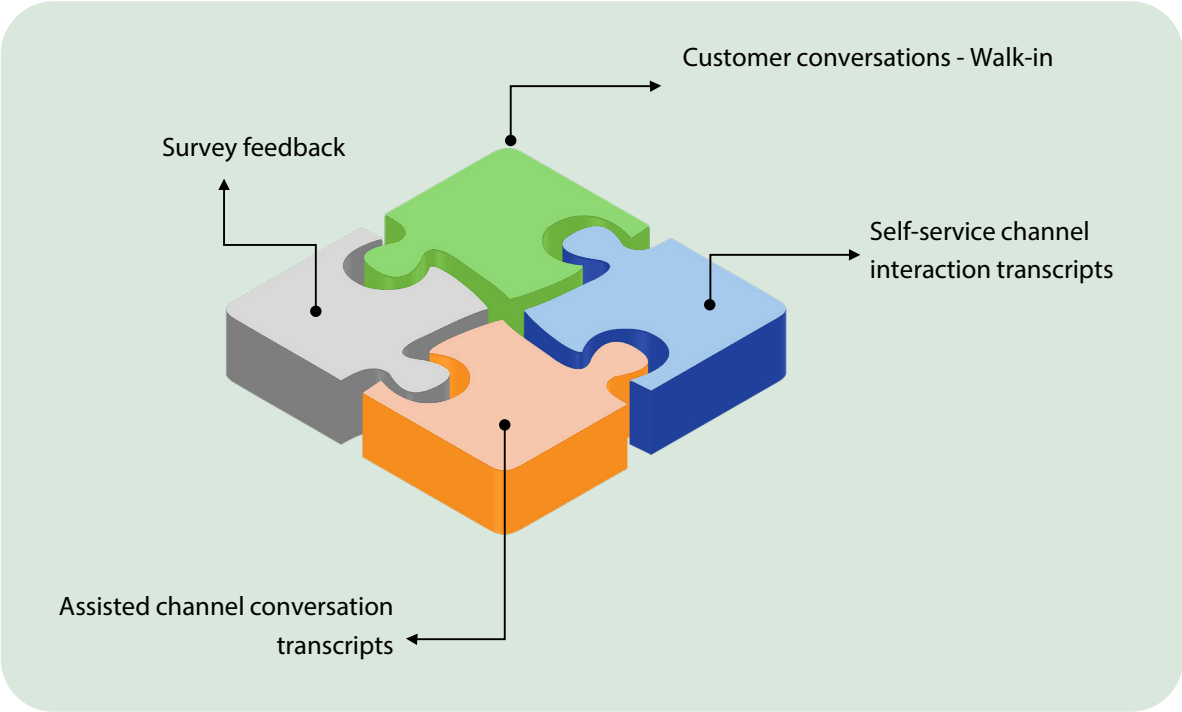


Figure 1: Customer interaction data sources

The above interaction category information is available in a text and voice format, either structured or unstructured.

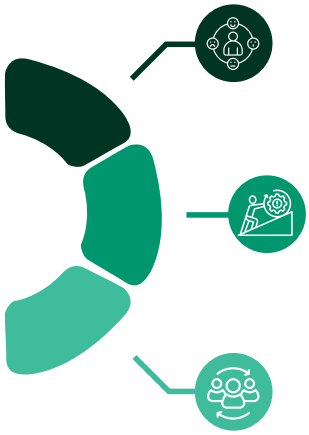
Text-based interaction sources, such as walk-in interaction summary, IVR menu traversal path in a touchtone system, emails, chat interactions, SMS, social media and survey feedback choices

Voice-based interaction sources include agent and customer conversation recordings, video channels, and voicebots/speech IVRS.

While data lake and voice transcription solutions have helped organizations to aggregate and structure interaction data, customer service strategies are still designed silos at the respective channel levels. This paved the way for using data analytics techniques on customer conversations to help organizations derive a customer-centric service strategy vis-à-vis interaction specific.

Application of data analytics in a Predictive Customer Interaction Journey

Every customer interaction provides an opportunity to understand customers - their behavior patterns, service expectations and preferences. Each customer conversation can be analyzed from the following aspects:



Customer sentiments

Tone and choice of words, reference to delayed or failed service requests, feedback on agents or contact center.

Customer effort

Customer repeating the problem statement across channels and agents.

Customer interaction intents

Intent and transcription of services requested, recent and historical.

In a typical customer interaction journey, the application of PCIM falls under three stages, as shown in Figure 2:

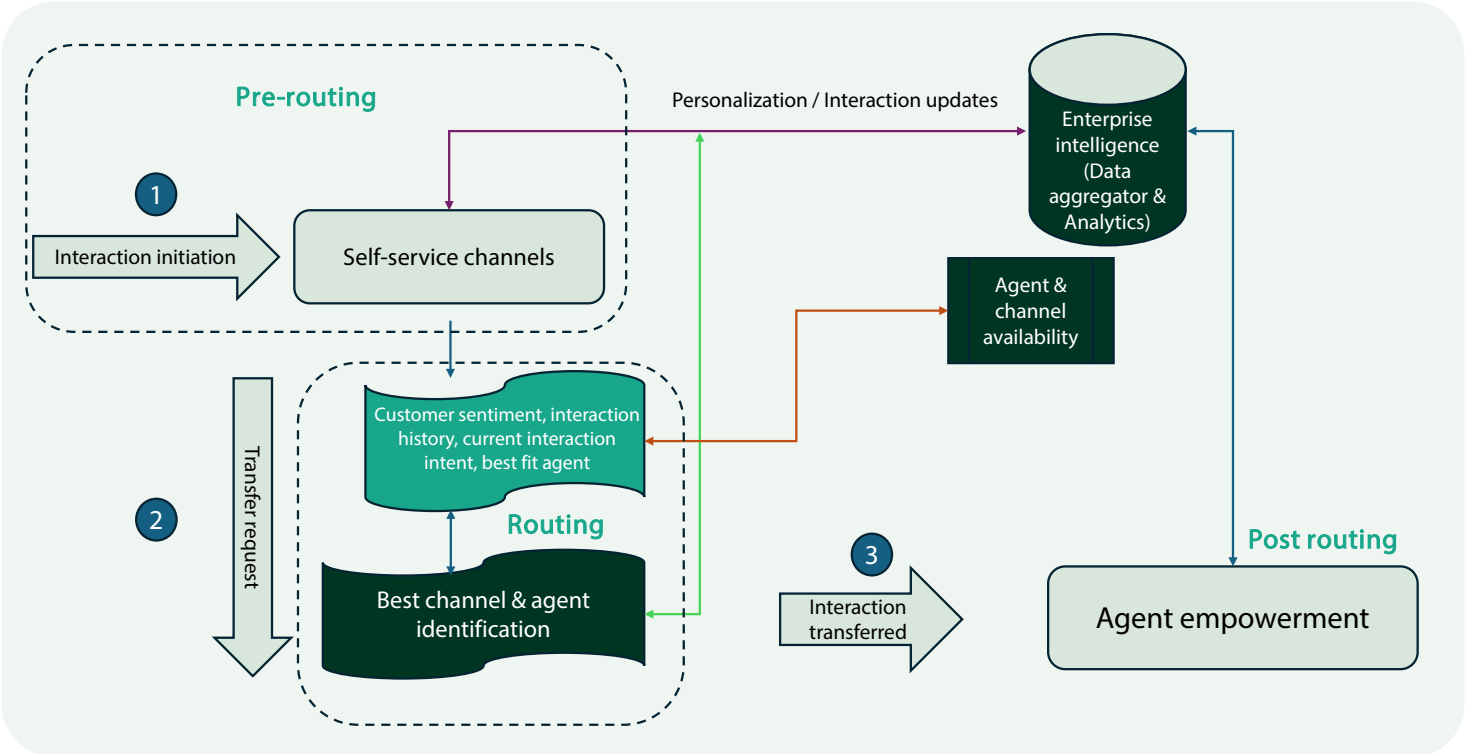


Figure 2: Stages of PCIM

At this stage of the customer journey, **pre-routing strategies** predict why the customer is contacting. Based on the customer's previous and recent interaction history across channels, services accessed, requests, and complaint history, the organization can predict the reason for contacting them, thus personalizing the service. For example,

1

Customer attempted to pay a bill or recharge their mobile through a mobile application or website. Suppose the transaction fails, and the customer contacts customer care. In that case, the voice response/ bot systems should proactively acknowledge the failed transaction and offer to continue the same, either automated or assisted.

2

Proactively provide information on frequently accessed services and the status of open requests and complaints

3

In a touchtone voice response system, the menu options can be constructed dynamically based on the historical IVR usage pattern.

At this stage of the customer journey, by predicting the customer intent for contacting:

- Improve self-service containment
- Reduce interaction handling time (assisted and unassisted)
- Reduce customer effort in repeating the problem statement/ contact history
- Personalize service strategies that improve customer satisfaction.

Routing strategies: At this stage of the customer journey, the objective is to find the best contact center and agent who can serve the customer most efficiently and at the same time at an optimum cost. This requires an analysis of the following four aspects:

- Customer demography/segmentation
- Historical interaction data, including customer sentiment index
- Current interaction details like channel, service requested (caller intents), ID & V status, any emergency services requested, follow-up (repeat) or new interaction
- Previous agents who have served the customer.

The best contact routing strategy can be developed based on the above information. For example:

An irate (sentiment) high net-worth (segmentation) customer

Contacting customer care across the channel for an ongoing issue (current and recent interactions)

In the above scenario, the interaction should be routed to an expert agent who has managed the same or similar customer recently and has had better success handling similar issues. At this stage of the customer journey, identifying the best-fit agent/contact center:

Post routing and accepting contact, empowering agents with an integrated dashboard/unified view enables agents to serve the customer better. Such strategies improve service efficiencies and cost savings for the organization. Agents can be assisted during the conversation and post-completion of the conversation:

- Summary of recent interactions across channels
- Current interaction intents – Captured during interaction with IVR, chatbot, and voice bot.
- Based on historical interaction, display customer sentiment (mood) index and Customer Effort Score (CES)
- CES - Based on repeat use of the same intents (across channels within 'x' days) and open incident/case available related to the intent
- Capture current interaction transcripts
- Use the intent to display KM/FAQ summary automatically
- Provide call nudging and next best action suggestions
- Caller intent-driven KM/FAQ view
- Customer intent-based call nudging and next best action guidelines
- Interaction summary at the end of the current conversation.

By empowering agents and transcribing conversations in real-time, the organization can:

- Reduce average interaction time including post-interaction activity time
- Improve first contact resolution, reduce repeat interactions
- Improve revenue generation opportunities
- Predict churn
- Automate index calculations – Customer satisfaction, Customer effort score, Agent performance score
- Facilitate agent coaching.

Benefits and challenges of implementing Predictive Interaction Management

Implementing PCIM creates a framework for continuous improvement. Analytics-driven predictive interaction management helps organizations redefine the customer interaction journey, enabling real-time interaction analysis to derive actionable insights. Analytics plays a transformative role in managing customer interactions and creates personalized experiences tailored to individual customer behavior and preferences.

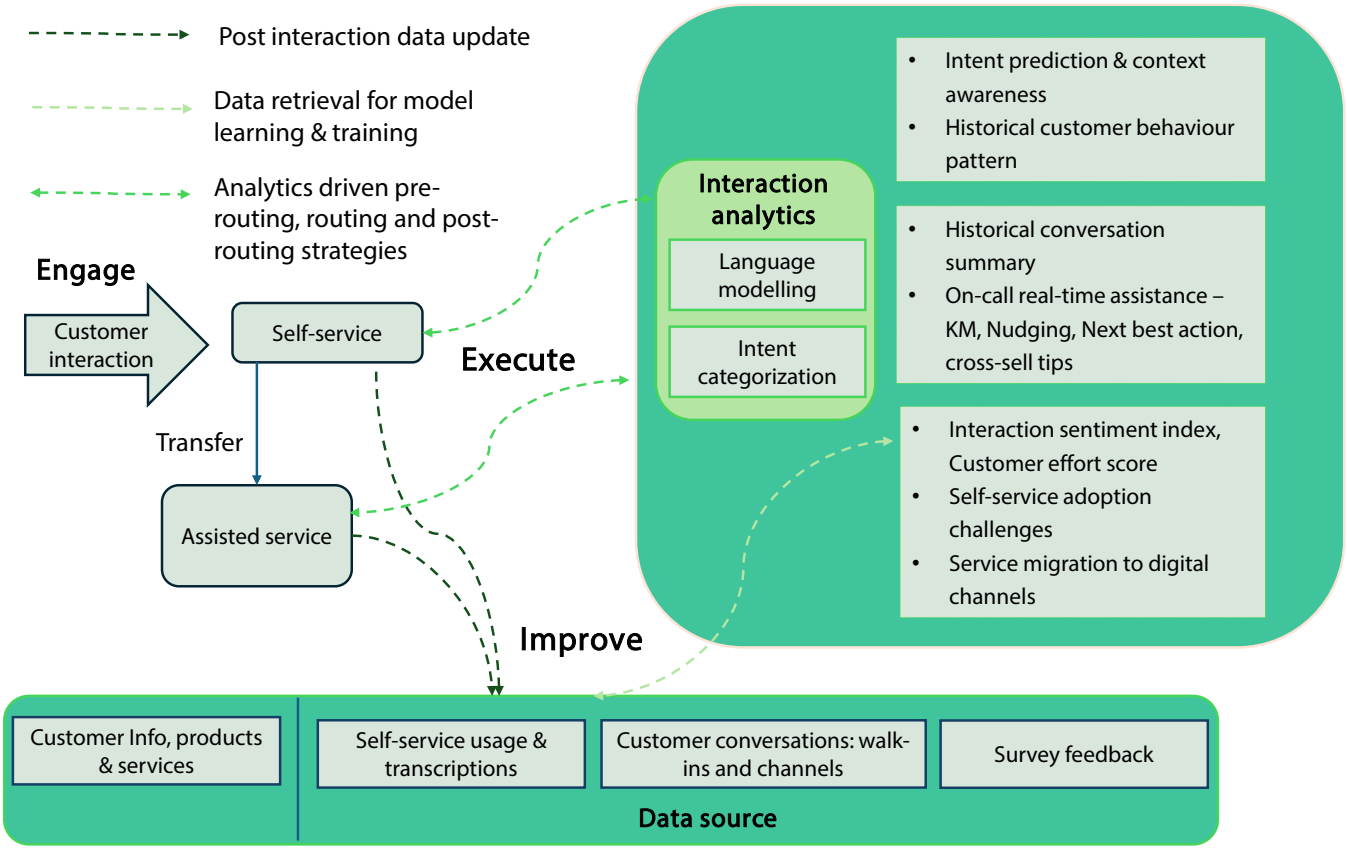


Figure 3: The future - predicting customer interaction

Predictive customer interaction management offers many advantages that enhance customer experience and operational efficiency.

- Improved customer satisfaction and reduced customer effort by analyzing historical interaction patterns and offering a personalized service
- Improved agent performance by empowering agents with interaction nudging tips and next best action and summarizing the interaction automatically; PCIM helps organizations optimize average interaction handling time and improve first contact resolution and CSAT index
- Reduced cost of operation because of optimization of contact center KPIs
- Improved revenue enhancement opportunities by providing cross-selling tips to agents based on the historical and recent interaction context, not just based on product and service portfolio.

Despite its many advantages, the implementation of PCIM poses challenges, such as:

- Data quality issues
- Data privacy and compliance
- Data integration challenges
- Ethical considerations.

Data quality issues

The primary challenge in PCIM is ensuring data quality; the predictive model's effectiveness is directly dependent on the completeness, consistency and accuracy of the data. Decisions on incorrect or invalid data will lead to inaccurate and biased predictions. Hence, ensuring that the data used for training/making decisions is complete, consistent and accurate is vital.

Data integration/aggregation

Integration of interaction data from multiple disparate sources remains one of the key challenges for organizations aspiring to deploy Predictive Customer Interaction Management. For PCIM to be effective, it is essential to aggregate interaction data accurately to a centralized source across the customer interaction journey.

Data privacy and compliance

As the organization relies on data-driven insights, data privacy and compliance have become more essential to customer interaction management. Customers expect an organization to strictly adhere to local data protection laws, comply with the purposes for which the data is collected, and do not expect any compromise. Deploying strong data security controls and policies is essential so that only authorized persons access the data. Furthermore, it is critical to anonymize, normalize and maintain audit trails of the data source.

Ethical considerations

This is an essential aspect of predictive customer interaction management. Organizations must be transparent about data usage and ensure that the predictive models built do not have biases or discriminatory predictions. A lack of transparency on how predictions are made can adversely impact the usage of the applications. More than compliance, building transparency helps in building customer trust.

Organizations must navigate these challenges, adapt innovative technologies to fully harness the benefits of predictive analytics and manage customer-centric service strategies.

Conclusion

Predicting customer interaction involves data analytics and machine learning techniques to anticipate and respond to customer behaviors and preferences. This proactive approach is increasingly important & relevant in today's competitive customer service environment, where understanding customer expectations can significantly enhance both customer satisfaction and operational efficiency.

Customer centricity, adopting predictive customer interaction management is an absolute 'need' in today's sophisticated customer care landscape. Every customer is unique and has their own individual preferences. Predictive customer interaction analytics enables organizations to understand the customer journey holistically, across channels, over time.

The ability to accurately predict customer needs allows organizations to tailor their services, leading to stronger customer relationships and improved business outcomes. Customer centricity allows organizations to provide personalized and consistent service across all touchpoints, improving operational efficiencies and cost optimization.

About the Author

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Parthasarathy S has over two decades of experience in strategizing customer experience, digitization of customer touchpoints and cloud migration across industry verticals. He has handled various functions like Business Analysis, Pre-sales, Business Consulting, and program management across geographies.

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