



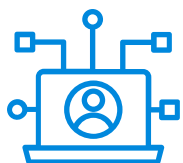
Comprehensive analytics for contact centers

HGS Analytics Framework

Contact centers are going through an interesting transformation phase during this COVID era. Instead of working 100% in brick-and-mortar facilities, more than 80% of agents are now working at home. Outside of this new major change, the most common challenges facing contact centers remain the same.

Contact centers are grappling with rising customer expectations, complex outdated systems, and labor quality erosion. Many times, contact centers are viewed as a cost center and will be first on the chopping block when a downturn hits. This is ironic, as the contact center is the heartbeat of a company's performance. It is the first point of contact that the customer has with the brand.

Common challenges faced by contact centers



1. Rising customer expectations

More customers are moving to make online purchases. In 2020, [69% of Americans](#) shopped online and the pandemic has accelerated this trend. Per a McKinsey [study](#) 30% more customers purchased online due to the pandemic. This means that customer service organizations had to manage a rising number of interactions.



2. Interaction complexity

[51% of companies](#) have more than eight channels to interact with customers. This means that customer service departments will have to support these channels and will have to stitch data together from these channels to get a comprehensive profile of the customer.



3. Integration complexity

Historically, contact center data is housed in multiple, siloed legacy systems that are outdated and have accrued technical debt. It is incredibly difficult to gain meaningful insights from these outdated systems relying on manual processes.



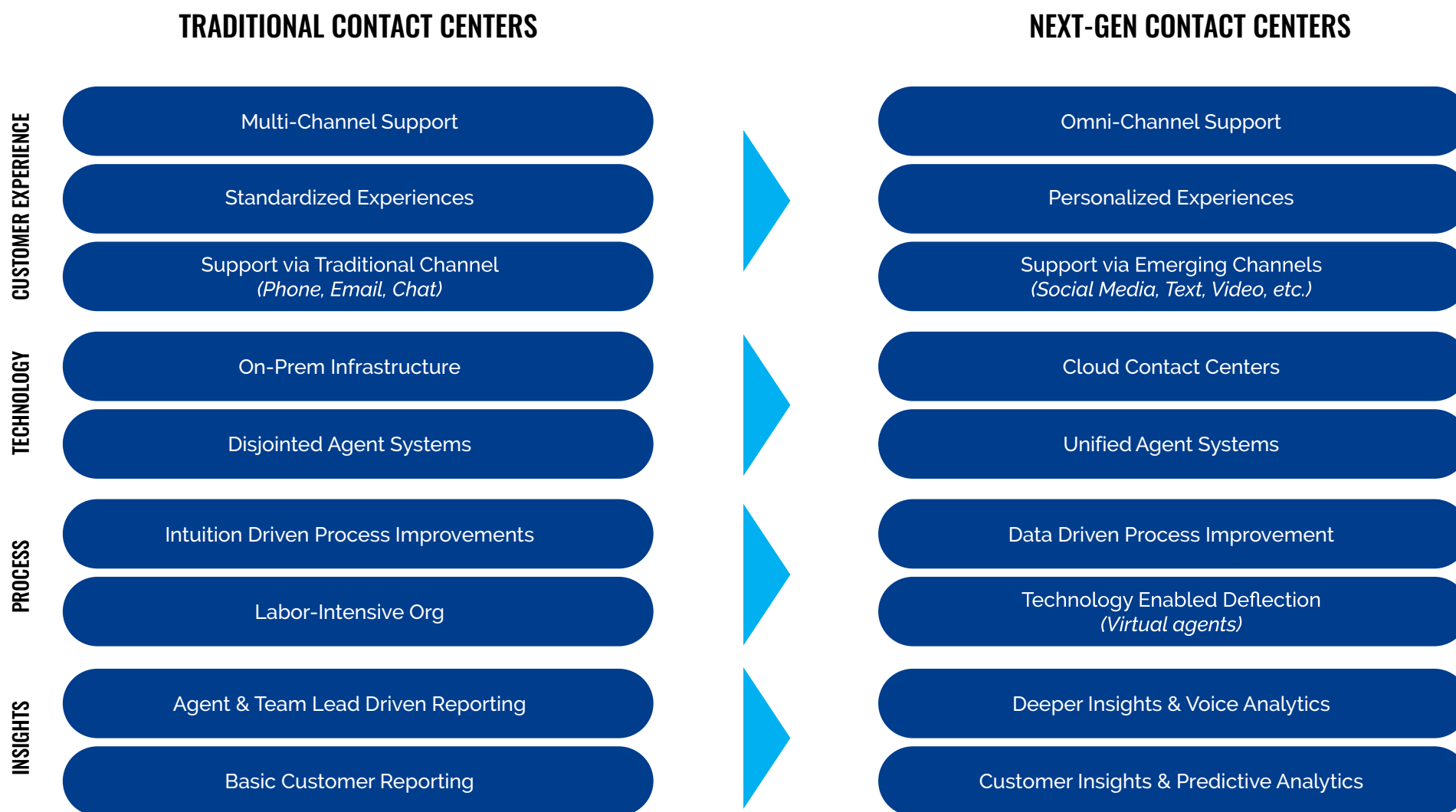
4. Labor quality erosion

Attrition is one of the biggest problems faced by US contact centers. The annualized attrition for many contact centers is [greater than 40%](#) due to low wages and increased work pressure. In the gig economy world, re-hiring is not a viable option and customer service organizations should look for alternate ways to scale.

Customer service organizations are dealing with fewer qualified agents managing a complex IT infrastructure talking to impatient customers with complex problems.

The below visual broadly illustrates how contact centers are evolving to a next gen contact center leveraging cloud, AI and analytics.

How is Contact Center Industry Evolving?



Among the many digital technologies that are going to reshape the customer experience, Analytics and AI are rated as the top technologies that will reshape the Customer Experience industry.

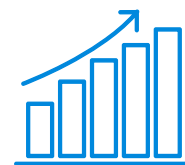
ROI

The analytics solution will be able to provide tangible ROI that is either cost-neutral or add to the bottom line while enhancing the customer experience within a year of implementation. Typically, the ROI can be measured in four different ways



1. Hard savings

- » Savings due to eliminating redundant/ duplicate platforms (call recording platform, other outdated systems etc.)



2. Cost savings due to productivity gains

- » Improve agent productivity by at least 1-2%/year
- » Automate manual QA processes by 50%



3. Revenue growth

- » Increase the agent upsell/cross sell rate
- » Improve the CSAT score resulting in improved revenue.



4. Risk mitigation & saving brand reputation

- » Improve agent compliance
- » Reduce fraud and other brand-impacting concerns

Contact Center Analytics Framework

HGS Digital has defined a pyramid approach to delivering analytics for contact centers. The framework provides a step-by-step approach for customer service organizations to implement analytics rapidly and at scale. As companies move up the pyramid, they leverage sophisticated and actionable insights that will help with improving business outcomes.

The HGS analytics framework is divided into four categories: Operational Analytics, CX Analytics, Voice of Customer/Automated QA and Custom Insights leveraging predictive models.

Illustrative Outcomes

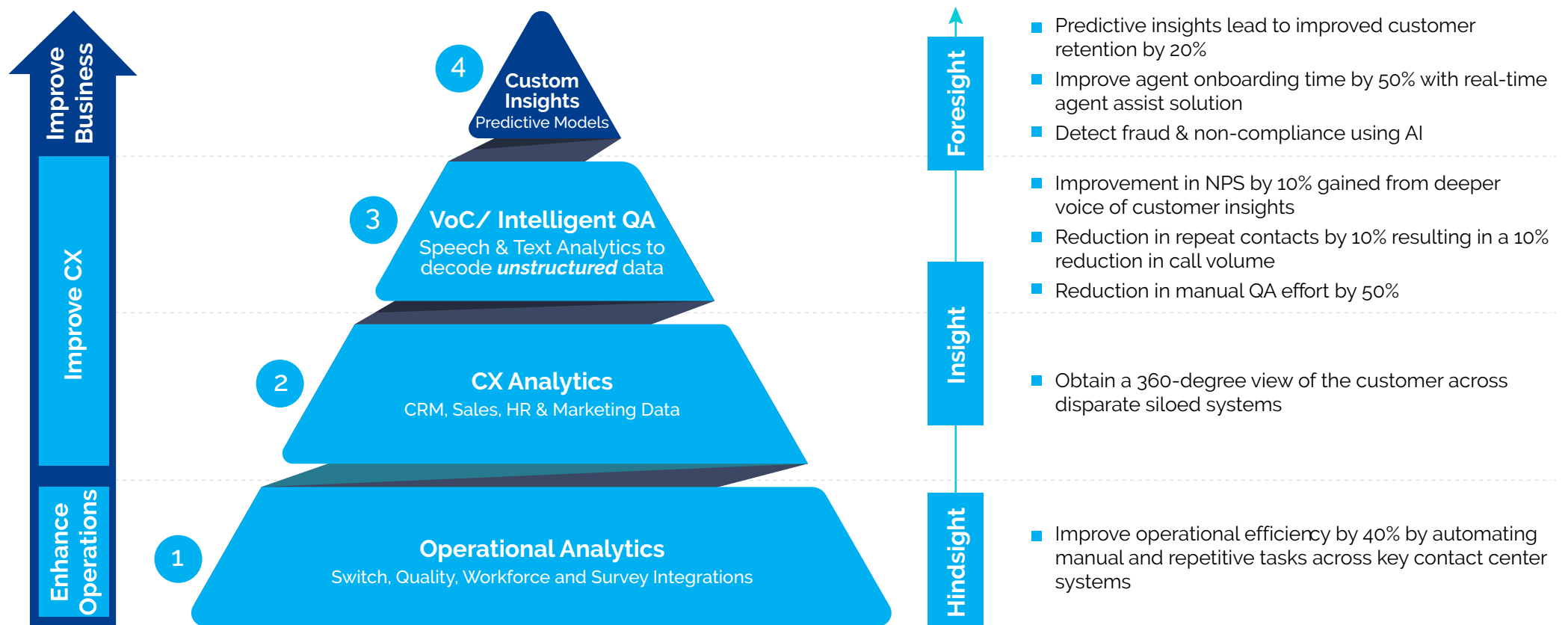


Figure 1 - HGS Analytics Framework

The base of the pyramid is Operational Analytics.

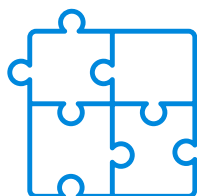
1. Operational analytics

Operational analytics is the foundation for any customer service organization. Below are the challenges faced by contact center executives and the solution and benefits of operational analytics.



Challenges

- » Contact center executives are struggling with aggregating data across systems as data is coming via channels that are siloed.
- » Unable to reduce interaction volumes and thus unable to reduce the cost of the contact center
- » Struggling to improve agent efficiency
- » Unable to forecast the volumes and staff appropriately



Solution

- » Analytics platforms should aggregate discrete datasets (Switch, Quality, Workforce, Survey, CRM etc.) to provide a real-time snapshot of the interaction volume
- » Automate many of the manual repetitive tasks performed by the agent [using BOT](#)
- » Drill down capabilities enable a breakdown of Level 1-3 categories that provide insights around why customers are calling
- » Leverage AI to forecast the contact center volumes so that agents can be ramped up or down based on seasonality
- » Generate real-time insights to the users about their business.



Benefits

- » [Improve contact center productivity by 40%](#) by automating manual and repetitive tasks
- » Improve agent efficiency and team-led performance by 20%
- » Single source of truth for operational leadership (Directors, Managers and Team Leads) with different levels of access for each group
- » Staff the adequate number of agents to address the volume demand
- » Comprehensive view to manage the contact center performance in real time

Sample Dashboards

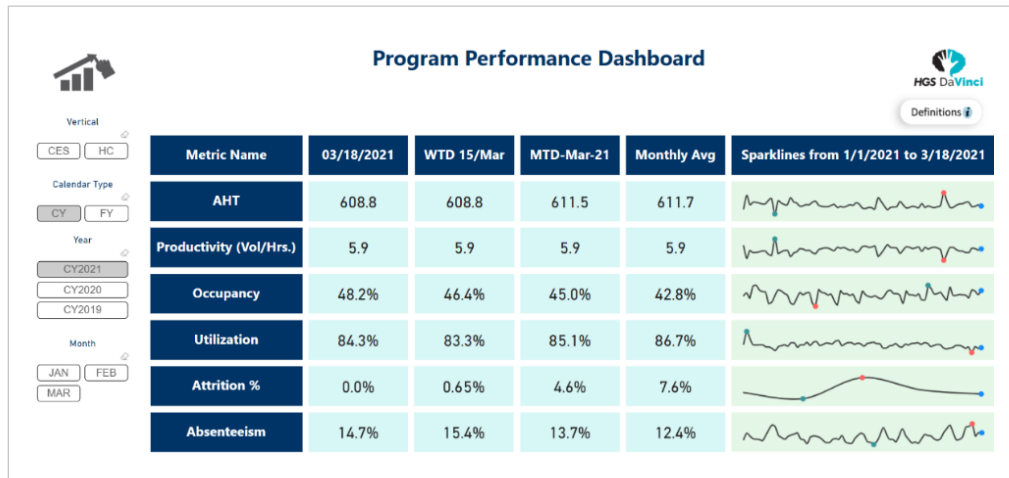


Figure 2 – Program Performance Dashboard measures key metrics across the organization



Figure 3 - Quartile Chart for team leads and agents, clearly identifying problem areas



Figure 4 – Program Performance Dashboard measures key metrics across the organization

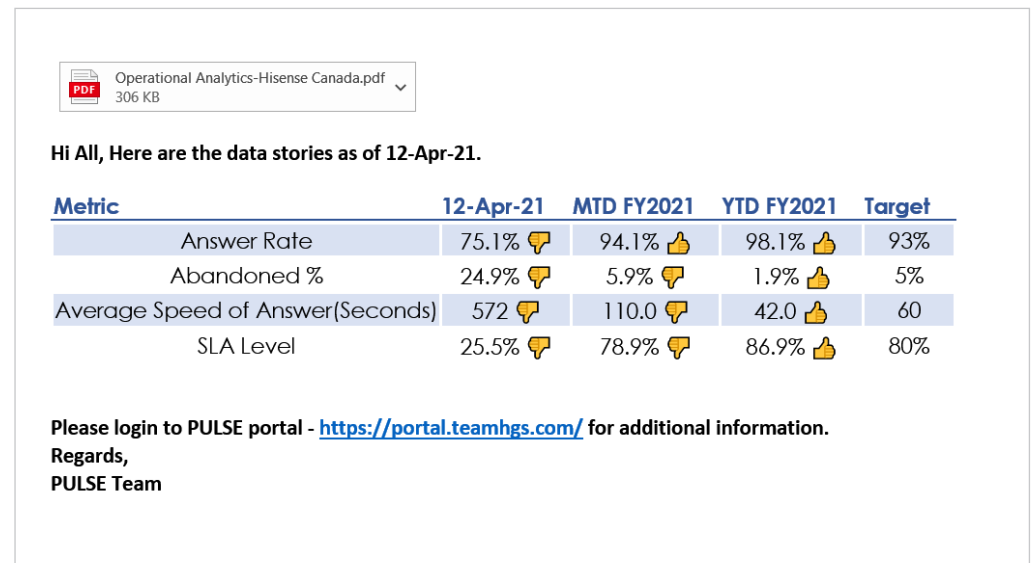
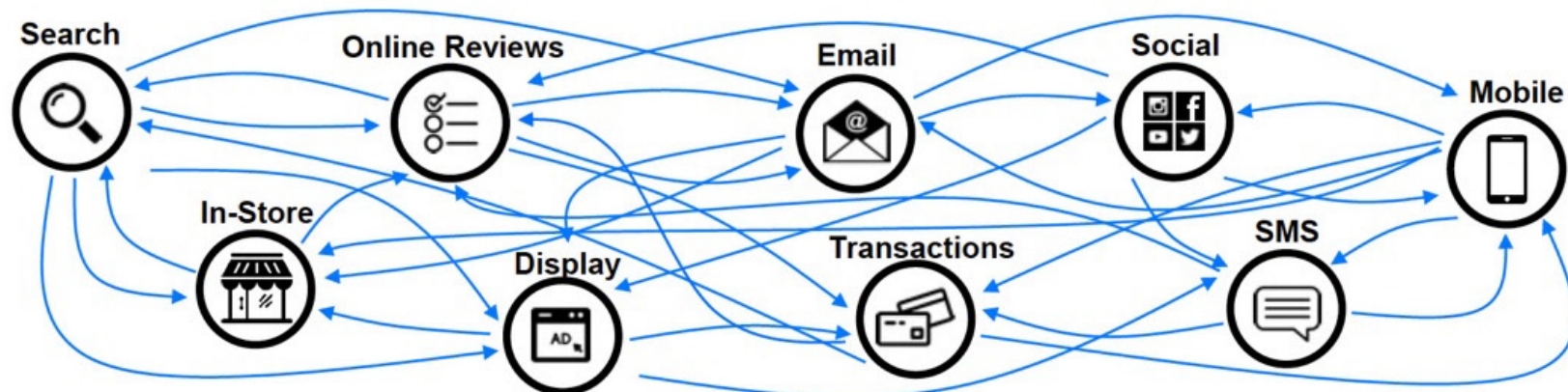


Figure 5 - Quartile Chart for team leads and agents, clearly identifying problem areas

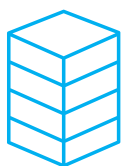
2. Customer experience analytics

Customer experience analytics provide capabilities to do cross-platform analytics that will improve the customer experience. As the number of channels increase, it is very important to integrate data across these channels to be able to understand the full breadth of customer interactions. [A Forrester study](#) revealed that data is collected across 6 touch points and stored on an average of 5.5 channels.

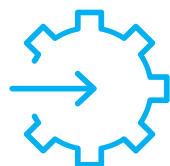
On many occasions, customers would have interacted with the brand in a brick-and-mortar facility. So, connecting the digital crumbs across online and offline channels to be able to create meaningful experiences for the customer would be a table stake feature for customer service organizations and business websites. [Based on a Google-Forrester study](#) 84% of the marketers indicated cross-platform analytics as the most crucial factor to achieve their marketing objectives.



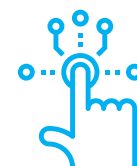
Delivering effortless, in-context, **omni-channel Experience** is challenging:



Siloed Data



Integration Complexity



Interaction Complexity



Rising consumer expectations

Figure 6 – Modern Customer Journey

Below are the challenges faced by contact center executives and the solution and benefits of customer analytics.

Business challenges

- » Modern customer journey is complex with data coming from multiple siloed channels
- » Marketers and CX executives are struggling to determine a comprehensive CX journey to identify the gaps

Solution

The CX analytics platform provides the opportunity to access cross-platform analytics by aggregating discrete data sets from different systems like CRM, HR, Sales, Marketing, and any other systems that house customer data. The insights are delivered as part of real-time dashboards that are accessible to contact center leaders at any time. The different features of this platform are as follows.

1. Customer journey mapping

- » Volume by channel, brand, product, contact type, geographical distribution
- » Customer segmentation (what states customers are contacting from, etc.)
- » Customer 360 (who are customers, what are customers calling about, Omni-channel interactions)

2. Sales analytics

- » Total Sales, Total Refunds, Cancelled Order Cost, Avg. Sales Values Per Order
- » Revenue by customer, by channel, by month, by state
- » Survey analytics
- » CSAT summary, surveys by channel, by month, by contact center location
- » Perfect scores, issue resolution, agent courtesy, agent knowledge, agent sat.

3. Product analytics

- » CSAT for products and product types
- » Customer complaints by product and product types

4. Detractor analytics

- » Detractors Top Call Drivers, Agent Controllable vs. Non-Controllable, PS Trend by Team Leader, Top 10 Agents by NPS Score

5. Marketing analytics

- » Promotions and Revenue by Channel, Customer Lifetime Value, Customer Churn, Sales Revenue, Cost Associated Per Lead Acquisition



Benefits

CX analytics platforms offer customer service organizations the following benefits

- » Real-time customer analytics provide a 360-view of customer performance
- » Detailed customer analytics provide insights around customer segmentation, demographic analysis, and other customer attributes
- » Ability to link products and brands with the associated reasons why customers are calling and suggesting product improvements
- » Predictive analytics capabilities like customer churn, customer lifetime value provide tangible business outcomes
- » Provides cross-platform analytics to manage the customer journey across all touchpoints and remediate customer experience gaps across touch points
- » Other actionable insights like effective marketing spend, product insights, channel insights will be provided based on the data

Sample Dashboards

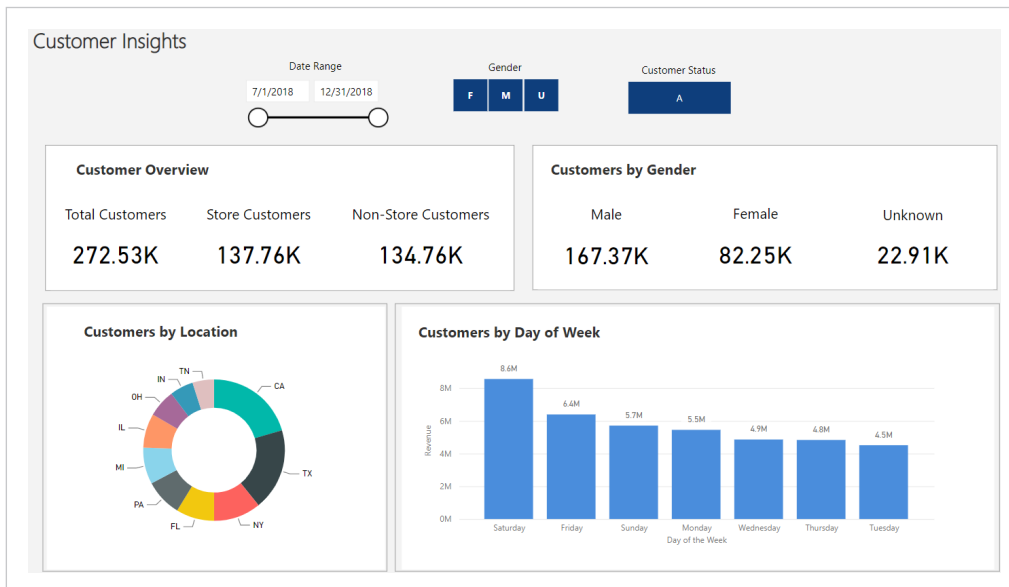


Figure 7 – Customer Insights

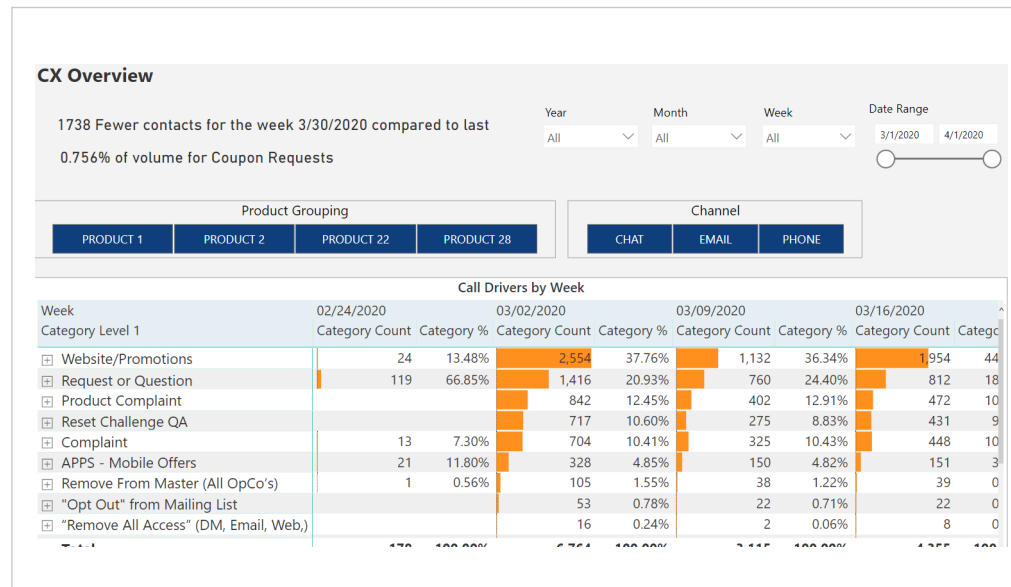


Figure 8 – Interactions by Channel and Product Grouping

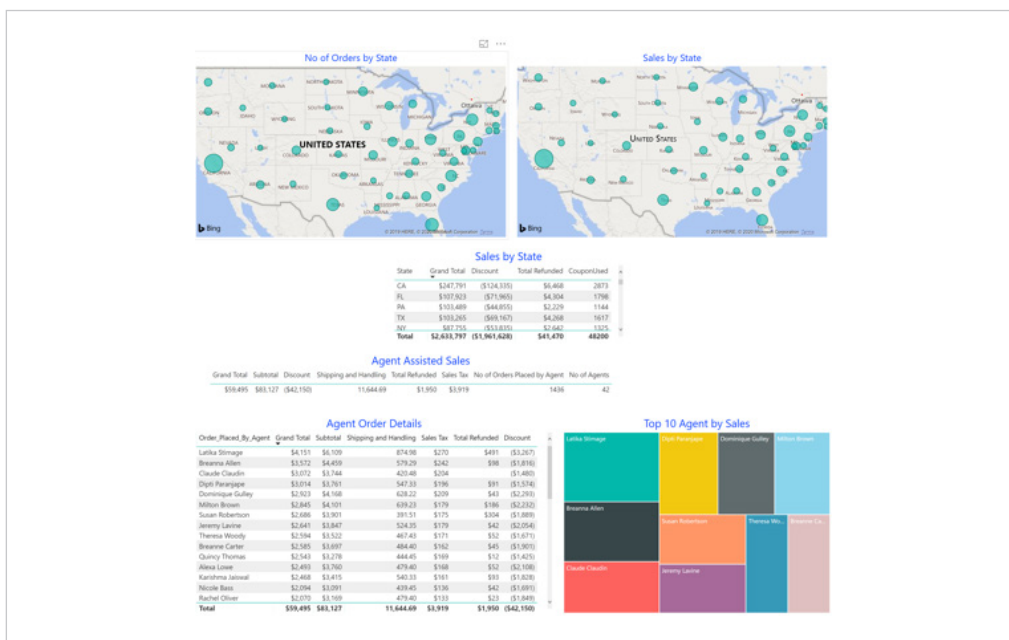


Figure 9 – Interactions Volume & Sales by Region

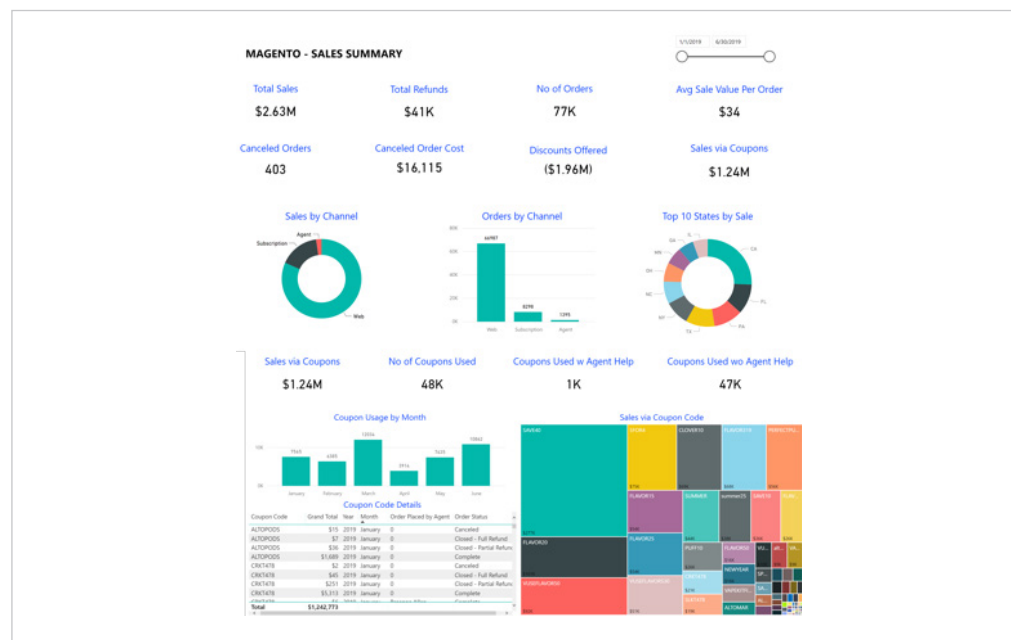


Figure 10 – Team Leader Sales Dashboard

3. Interaction analytics

Interaction analytics tap into the goldmine of unstructured data (social media, social product reviews, voice, email, and chat) residing in the contact center and combines with structured data to gain tangible insights. A [Forrester study](#) found 84% of CX professionals understand the value of unstructured data, but only 30% of data collected today is unstructured.

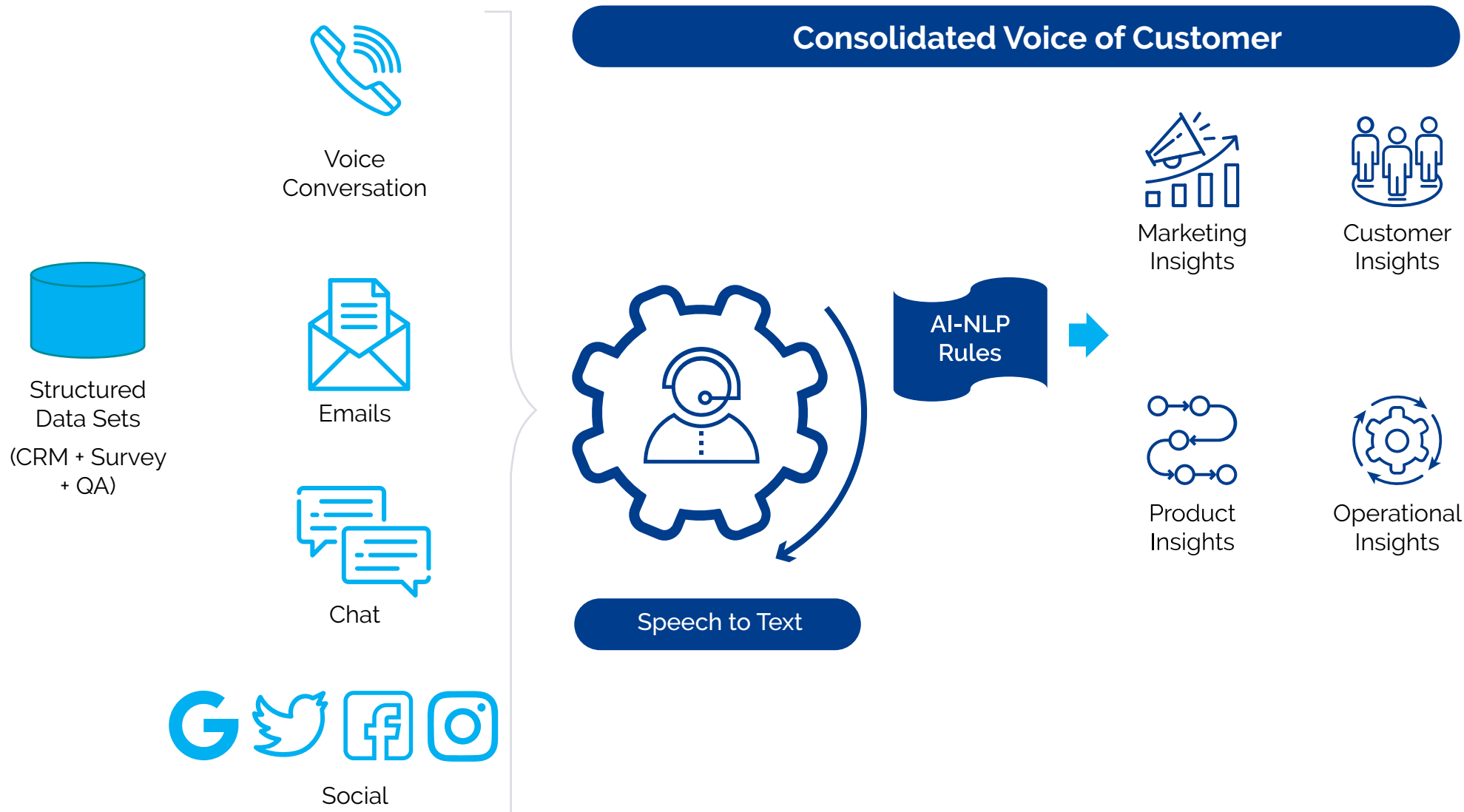


Figure 11 – Overview of Interaction Analytics

This solution has two parts. Voice of Customer analytics derives insights that will improve customer experience and Intelligent QA will improve agent efficiency and performance and hence reduce the cost of operations.

i. Voice of customer analytics

According to a [McKinsey study](#), 93% of CX leaders agreed that a survey-based metric is used as a primary means of measuring CX performance. However, less than 3% of customers take the NPS survey. HGS [collaborated](#) with AWS to dispel the myth that using NPS with a small sample percentage will result in identifying insights that lead to improved customer experience.

The social reviews have become an important part of the voice of the customer. As per the [birdeye customer review analysis study of 2021](#), Google dominates this space followed by Facebook, Yelp, and others.

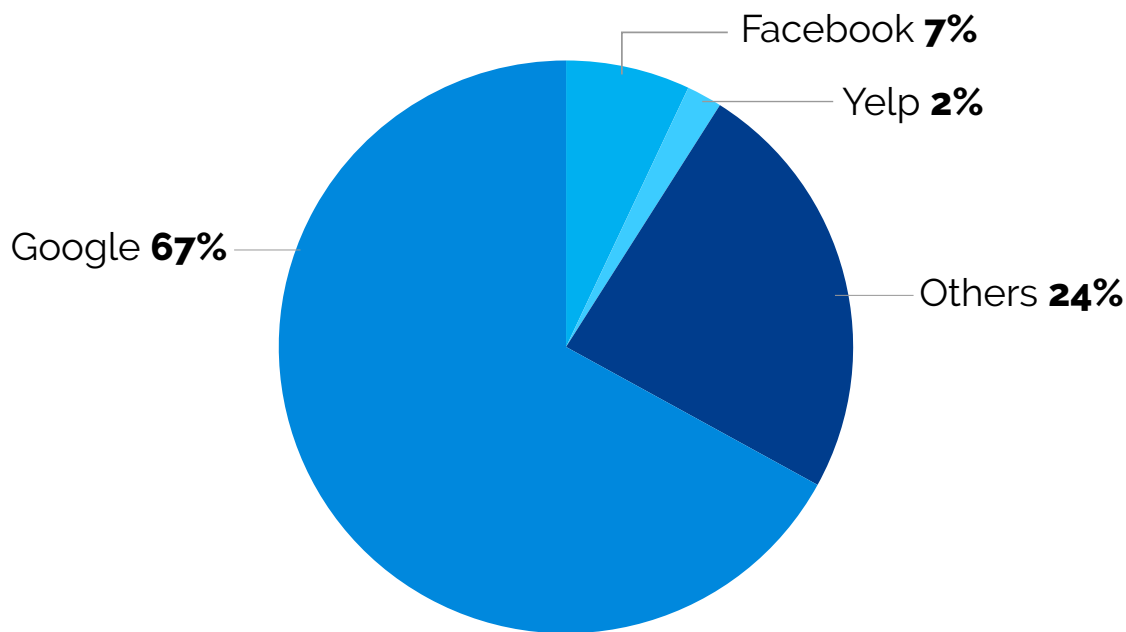
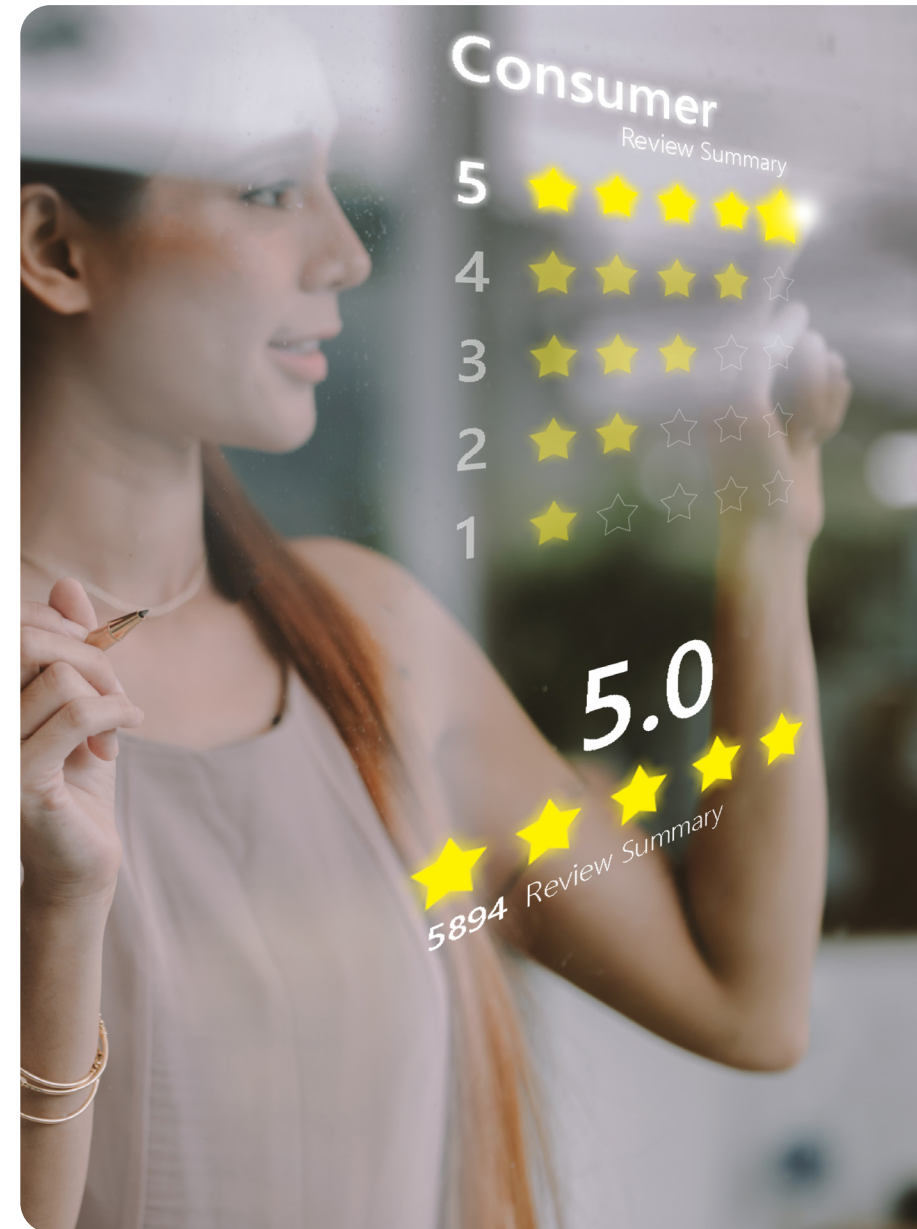


Figure 12 – Share of Social Media Reviews by Companies

Social media reviews are important as it boosts the [SEO by up to 22%](#). So, contact center and CX leaders need to look at the data from all these channels to optimize customer journeys and to create better, smarter, faster, and more frictionless customer experiences.





Below are some of the major challenges with measuring customer experience.

Business challenges

Contact center executives are struggling with the following problems

- » NPS is used as a mechanism to measure CX (small sample size, limited insights and unable to share with broader organization)
- » Difficult to measure and improve the customer experience across multiple channels, facilities, and geographies
- » Unable to identify product trends immediately and over time
- » Lack of consolidated data across multiple channels limiting upsell/cross-sell opportunities
- » Inability to share the insights with other business stakeholders such as marketing, supply chain, facilities etc.

Below are the features of the HGS Digital Voice of Customer solution.

Voice of customer solution

HGS analytics leverages AI to monitor 100% of the interactions and combines structured and unstructured data (voice, email, chat, product reviews and social media) to generate meaningful business insights that lead to improved customer experiences and reduced costs. Instead of getting insights from a small sample of customers (2-3%) doing NPS, there is opportunity to gain insights from 100% of customers. These newly derived insights can be used not only by the contact center, but also by other departments like marketing, product, supply chain etc. to improve decision making and the overall customer experience.

The features of the solution are as follows:

- » **Customer personas and customer journey**– Leveraging the reviews and associated unstructured data, the Voice of Customer solution can determine the customer personas and recurring themes for the voice of the customer. Many times, the customer would have called the contact center first before venting the frustration in social media. The solution can provide broader themes across the customer journey so that appropriate resolution can be provided.

- » **Product trend analysis** - Identify product trends immediately and over time. This functionality will allow the product owner to identify the enhancements and derive insights that can be used to upsell, and cross sell the product to customers
- » **Loyalty and churn analysis** - Using the insights, the solution can determine the factors that are contributing to churn and identify the processes that will help with improving loyalty and retention
- » **Real-time transcription** - The real-time transcription allows opportunity for contact center team leaders and managers to measure the pulse of the business in real time. They can also search for keywords and identify the number of times a particular keyword or incident has occurred (e.g., search for the word “fraud” and it will display the number of times the customer has verbalized they believe the transaction is fraudulent).
- » **Sentiment analysis** - The real-time transcription nature of the solution generates agent and customer sentiment and enables the team leader to intervene if the customer is upset for a longer period during the interaction. It also allows the team leader to give the agent a break if the agent is taking too many harsh calls simultaneously.

Benefits

Following are the benefits of the Voice of Customer solution

- » **Improvement in NPS by 10%** gained from deeper insights about the customer sentiment across different products and geographies. As the [Forrester study](#) has shown, a one-point increase in CX score can translate into approximately \$10M - \$100M in annual revenue.
- » **Increased revenue** - Other benefits of the solution include improving marketing effectiveness, agent effectiveness and reducing churn.
- » **Identify product improvements** - The solution can capture the problems of the customers and identify reasons why customers are calling and further categorize them into product bugs and enhancements. By proactively identifying these customer questions related to products, it can be added to the FAQs and other self-serve technologies.
- » **Protecting brand reputation** - By listening to customer conversations in real time, organizations can identify the brand-impacting issues in real time and proactively intervene before it goes out to the public via social media.
- » **Marketing effectiveness** - Marketing can measure the impact of recent campaigns by identifying the interactions of customers as an outcome of the campaign. This will further help with refining the marketing campaign and the effectiveness of the campaign.



Sample Dashboards

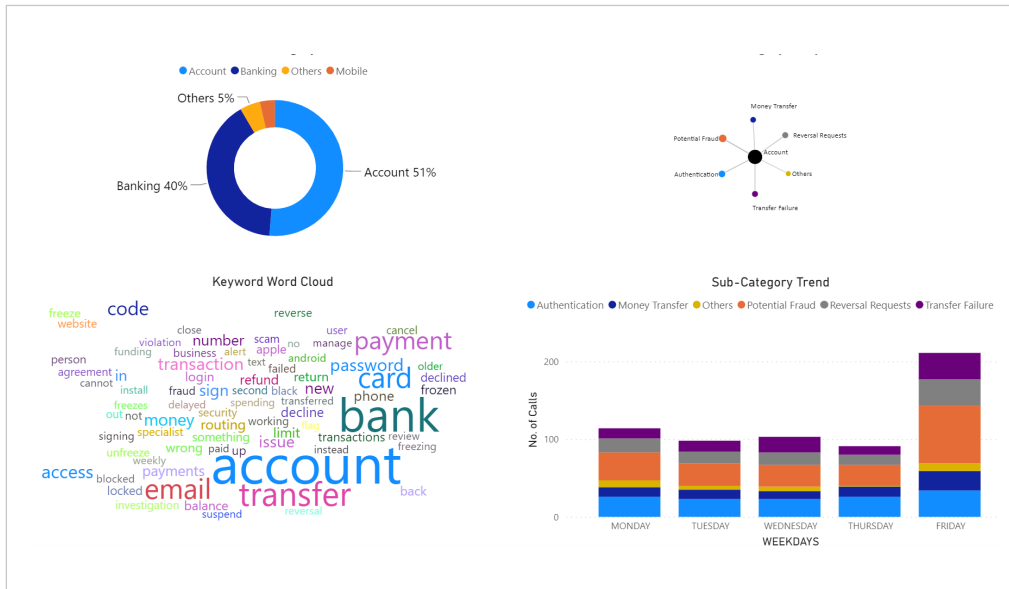


Figure 13 – Why are Customers Calling-Level 1, 2 Analysis

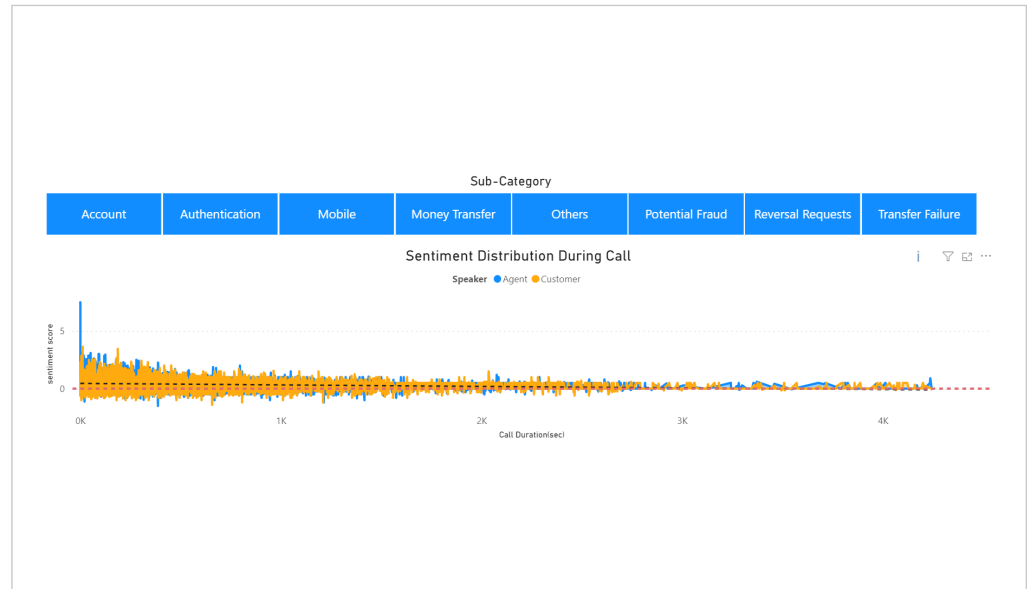


Figure 14 – Real Time Sentiment Distribution by Call Category

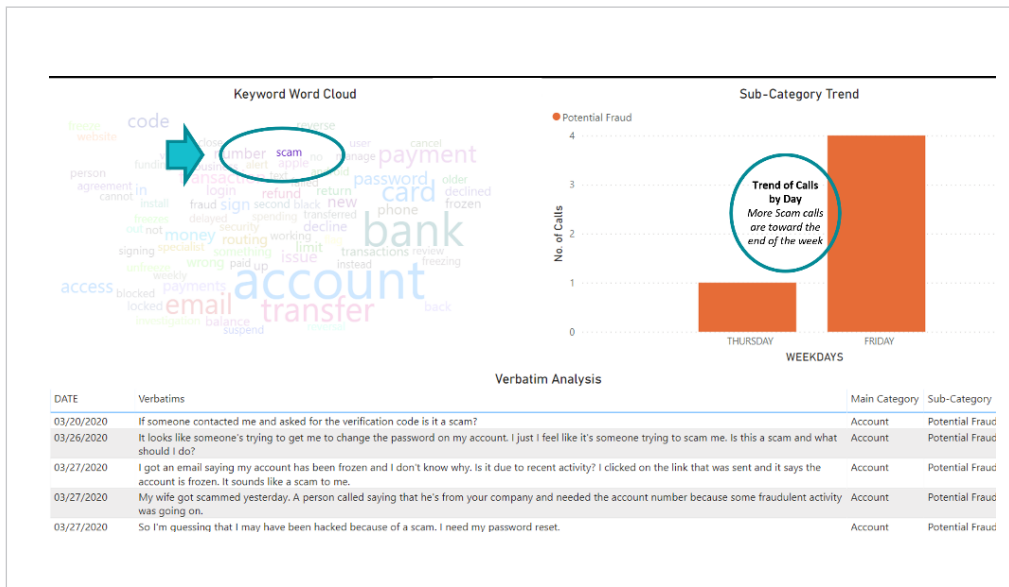


Figure 15 – Call Verbatims with Ability to Search



Figure 16 – Agent and Customer Sentiment Distribution Per Call

ii. Intelligent QA

The current QA process is manual, outdated and time consuming. The QA team manually listens to the detractor calls or reviews emails or chat to identify the root causes of the problems. This is a manual and arduous process, as the data is often stored in disparate systems and requires a certain amount of contextual judgement. It is also random based on agent population, and prior agent performance; thus, it is inherently biased, and not externally customer focused.

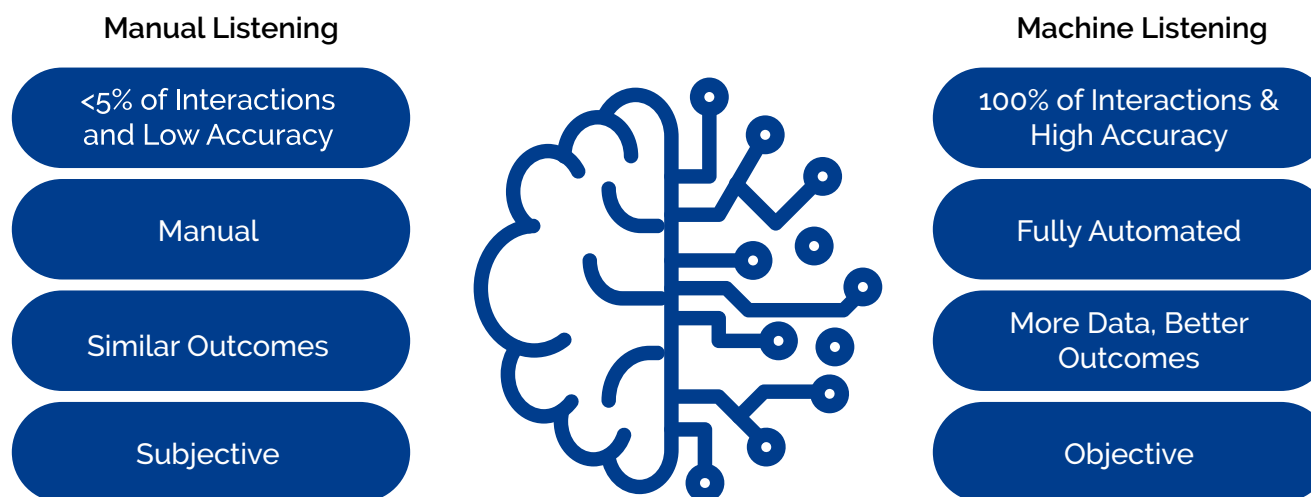


Figure 17 - Current QA Vs. Future QA

The future QA process listens to 100% of interactions, taps into data from discrete data sets and generates insights that will improve the agent coaching and quality management process. The future QA process is less people dependent and more machine dependent.

Below are the benefits of an Intelligent QA solution.

Benefits

Following are the benefits of the Voice of Customer solution

- » Improved agent efficiency - The FAQs for the agents can be enhanced using the common questions asked by the customer. This can be then further automated via an agent assist BOT.
- » Insights that lead to improved retention by 20% and improved customer engagement.
- » Reduction in repeat contacts by 10% resulting in a 10% reduction in call volume
- » Improved agent efficiency of 10% due to improved coaching
- » Reduction in manual QA effort by 50%
- » Fraud mitigation and other compliance issues – The real-time monitoring solution allows management to monitor the agents indulging in any non-compliance or fraud activities and can intervene immediately if any such situation arises.

Sample Dashboards

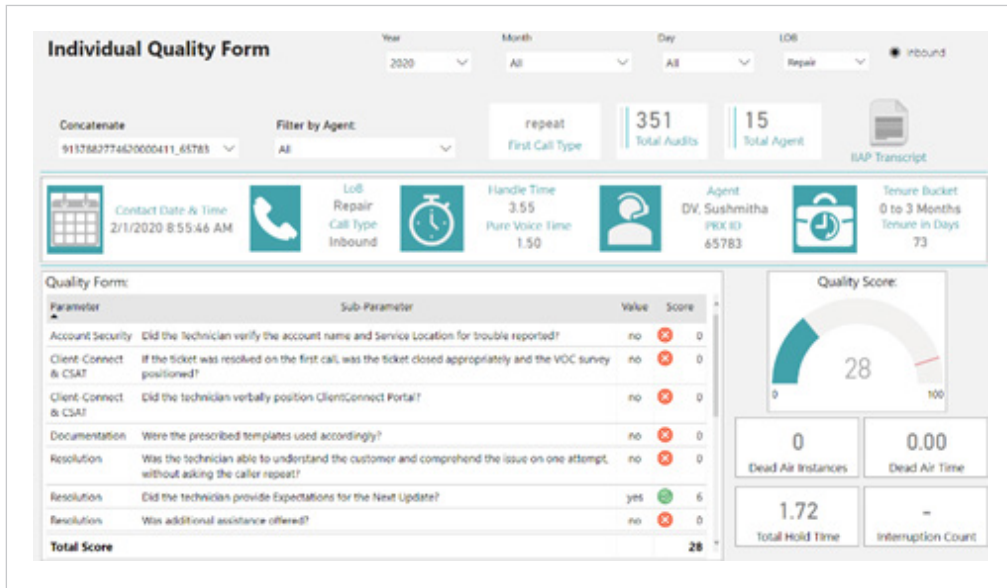


Figure 18 – Automating Manual QA Forms using AI

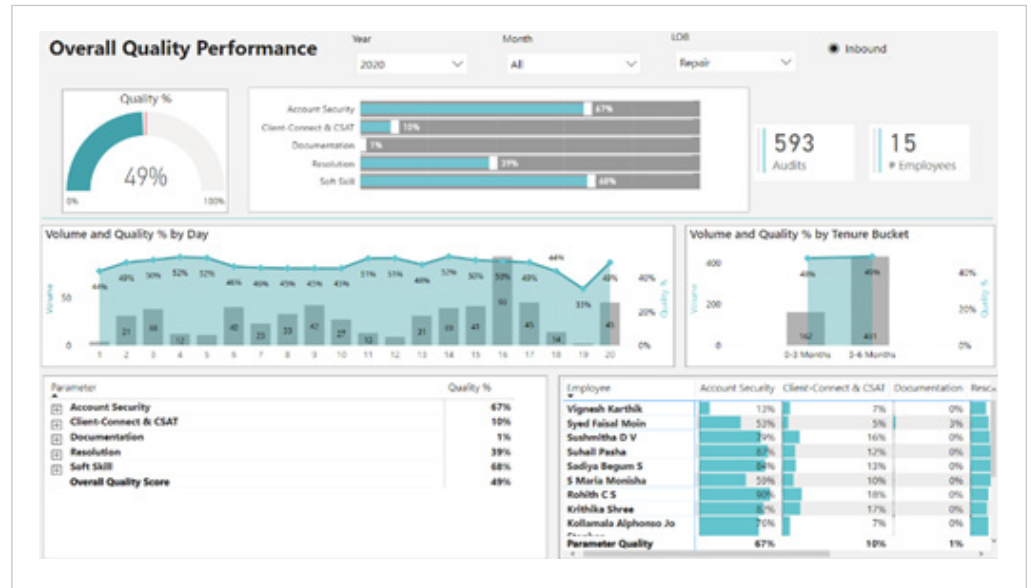


Figure 19 – Contact Center Quality Analytics Using AI



Figure 20 – AHT Analysis Using AI

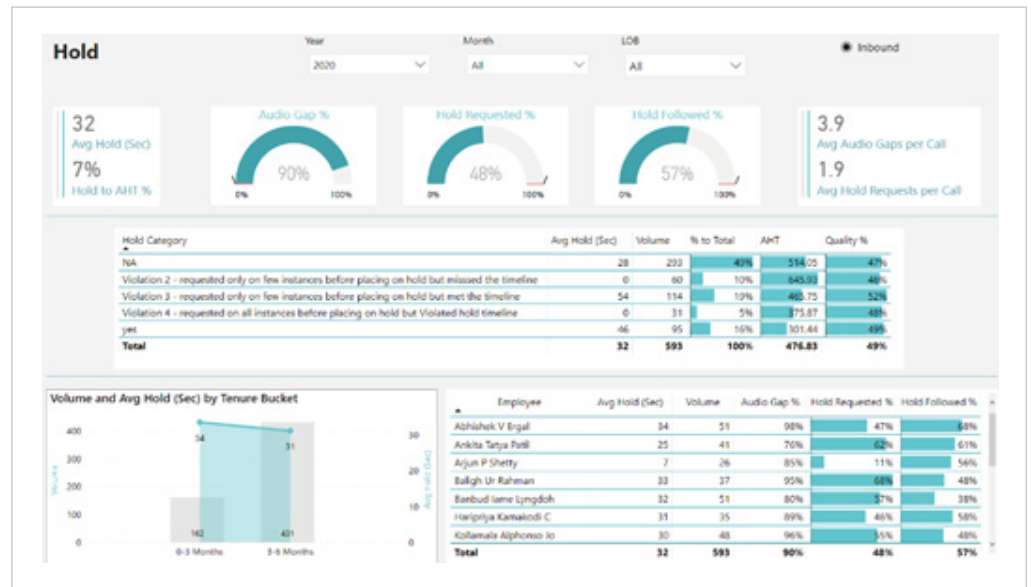


Figure 21 – Hold Time Analysis Using AI

4. Predictive analytics - AI use cases

A recent [MIT survey](#) identified customer service as the most active department for AI deployment and by 2022, it will remain the leading area of AI.

The HGS Digital predictive analytics offerings provide a comprehensive view of customer, marketing, and operational analytics. Below is the suite of analytics offerings that HGS provides as part of its predictive analytics offering.

Contact Center AI Use Cases

- » **Agent Assist - Next Best Conversation** – Proactively prompt the agents for the next best conversation based on customer's question. This will improve the customer experience and reduce agent frustration.
- » **Interaction volume forecasting / Workforce optimization** - Use AI based call forecasting methods to predict the number of calls and to predict the number of agents required to handle the interactions.
- » **Early Warning System** - Predict the probability of agents leaving along with the reasons why they would leave and proactively intervene to remediate.
- » **Project monthly collections with ability to mine the reasons for variance** – Using AI-based predictions, variances can be reduced from 40% to less than 5%.
- » **Fit Index** – Identifying the right hire for the organization using historical agent recruitment data, attrition data and performance data.
- » **Customer Churn** – Predict the probability of customer leaving along with the reasons for leaving and proactively intervene to reduce churn.
- » **Customer Lifetime Value** – Identify high-value customers and then combine that with the churn model to intervene high-value customers that would leave to get the best bang for the buck.



Sample Dashboards

Audio Transcript

Speaker-1

Hello. Welcome to Element Bank. This is Brandon. How can I help you? Bye. Let me help you out here for training and monitoring purposes. This call is being recorded, okay? For verification, please state your full name. Please confirm your account number. Let me confirm 4123979. 4567 I see that you have a monthly mortgage payment of \$1200. And are you saying that you cannot make the monthly payment of 1200 a month? Sorry to hear that. Please hold on. I'll get more details. Looking at your details. Sorry, sir. We cannot hold payments. We're happy to reduce the monthly payments. We're in the business. We need to sustain it. So you need to calm down. I don't need to hear your swear words. So please be patient while I just your situation. Sir. Please be patient. Looking at your details. I can reduce your monthly payments by half. You will be paying \$600 a month for the next three months. Review your account after that, providing you didn't have any payments. Unfortunately, we are not a Fannie Mae or Freddie Mac loan. If it was a Fannie Mae back alone, we could have used the four parents' policy by waving your payments by 12. Is there anything else I could do for you? Alright, Thanks. Have a good rest of your day.

Speaker-2

Hi. This is Tim. I'm calling to inquire about putting my mortgage payments on hold. Okay? 10 shoe. 4123.979.4567. Yes, that is correct. Yeah, I just lost my job. Did it cover and I can't make the payment until I find the new one. Sure. This bullshit. We're in the middle of a pandemic. So you tell me to calm down. I'm going to lose the job. Not you. Why can't you just wave the payments and this pandemic? Many banks are doing that. Next time I'm gonna be more careful to check for Fannie Mae or Freddie Mac loans. No.

Figure 22 – Real Time Streaming of Call Transcription

Agent Assist

How do I keep the mortgage payments on hold?

There is no provision to keep the payments on HOLD. If the mortgage duration is less than a year, then you cannot reduce the payments. If the mortgage duration is more than a year, then we can reduce your payments by half for 3 months. We will review your account after that, provided you do not miss

Are there any government supported programs to halt the payments due to COVID?

Since this loan is not backed by Fannie Mae or Freddie Mac, we cannot waive your payments. If it was a federally backed loan, we could have waived your payments for up to 12 months. This policy is called forbearance. The bank and the customer mutually agree to temporarily reduce or suspend mortgage

Figure 23 – Proactive Agent Assist Recommendation

VoC Overview Agent Dashboard TL Dashboard

0 Active Calls

5 Compliance Issues

19 Quality Issue

0 Negative Sentiment

Agent Name	Call Date	Start Time	Active Calls	Compliance	Quality	Sentiment	Category	Action
Susan Thomas	3/26/2021	11:08:25	1	🔴	🟢	🟡	Payday loan, title loan, or personal loan	VIEW
Tom Andersen	3/26/2021	10:51:56	1	🟢	🔴	🟡	Debt collection	VIEW
Susan Thomas	3/26/2021	10:47:36	1	🟢	🟡	🟡	Payday loan, title loan, or personal loan	VIEW
Tom Andersen	3/22/2021	11:22:58	1	🔴	🟡	🟡	Payday loan, title loan, or personal loan	VIEW
Susan Thomas	3/22/2021	11:20:04	1	🟢	🟡	🟡	Debt collection	VIEW
Susan Thomas	3/22/2021	10:52:06	1	🟢	🔴	🟡	Debt collection	VIEW
Tom Andersen	3/22/2021	09:55:27	1	🔴	🟢	🟡	Debt collection	VIEW
Javier Alvarez	3/22/2021	09:51:57	1	🟢	🟡	🟡	Debt collection	VIEW

Figure 24 – Real Time Team Leader Dashboard

Call Details

Customer Phone No: +19724157600

Call Audio Player 00:00 / 02:26

Call Transcript

payments. You're happy to reduce the monthly payments for the business. I mean it to sustain.

Customer: This is bullshit there in the middle of a pandemic here.

Agent: Sir, I need you to calm down. I don't need to hear your swear words. So we please be patient while we address the situation.

Customer: Don't you tell me to calm down? I lost the job and not to you.

Agent: Sure. Please be patient while I take care of the situation.

Compliance Issue

- Agent requested sensitive info
- Customer used profanity

Figure 25 – Real Time QA Check

What to look for when evaluating a contact center analytics solution

There are several factors that companies need to think about when evaluating a contact center analytics solution. The most common thing when evaluating a contact center analytics solution and a vendor are listed below

- » **Vendor agnostic** – It is recommended to not depend on one vendor. Each ACD vendor or QA vendor will provide insights about its own capabilities. Ideally, you want a provider who has experience integrating multiple platforms in a vendor-agnostic manner to stand the test of time.
- » **Prior experience implementing contact center solutions** – The contact center industry is unique with a specific set of KPIs. Ask each vendor and contact center implementation partner for use cases and customer testimonials.
- » **Fastest time to market** – Look for accelerators and frameworks that help to deliver immediate value to the business. The accelerators include predefined dashboards, data models and API integrations to existing systems.
- » **Ability to share insights seamlessly with other departments** – Many departments (marketing, supply chain etc.) are hungry for data and they want to know why customers are calling the contact center. It is critical to be able to share these insights seamlessly with other departments so that they can take tangible action.
- » **Cloud-based and secure platform** – The latest innovations are happening via the cloud. Even the US Department of Defense is moving to the cloud with the [JEDI project](#). So, choose a partner who has expertise in implementing contact center analytics solutions in the cloud.
- » **Real-time insights at your fingertips** – Most contact center executives will have questions around performance multiple times a day, especially when there is an outage or during a holiday season. You want to be able to check the pulse of the business in real time. So, ensure that dashboards and emails/alerts are real time.
- » **Ability to measure tangible ROI** – As a stakeholder, you will be asked about the ROI of your effort. Select a partner who has implemented the solution and was able to provide tangible ROI post implementation.



Businesses are facing huge pressure to deliver increased revenue, improved margins, and improved profitability for shareholders. These businesses have realized that improving customer experience is key to achieving all three of these objectives.

Across the organization (Marketing, Sales, Supply Chain, Product etc.), everyone is looking for answers about how to optimize customer journeys to be better, smarter, faster, and more frictionless; not to mention less expensive. The pressure to perform is high, but many of these same departments are missing out on a critical weapon to unlock the answer to their questions, their customer contact center.

In today's digital world, the contact center is often a customer's last lifeline of hope to address deficiencies across a company's customer journey, and because of that, the contact center can be a treasure map to improvement.

A comprehensive CX analytics platform should be able to aggregate discrete data sets from disparate and siloed systems to be able to provide comprehensive and real-time insights to customer care executives.

Analytics will help the contact center determine what other solutions can be provided to reduce costs whether it's IVA, Chat Bots, or other AI technologies. The example below depicts how analytics can provide a snapshot view of the end-to-end customer journey. The dashboard also provides the ability to slice and dice by channels and departments. Using this view, contact center leadership can identify the departments/channels that are contributing to the highest call volume and take steps to address it.

End-to-End Customer Experience Journey

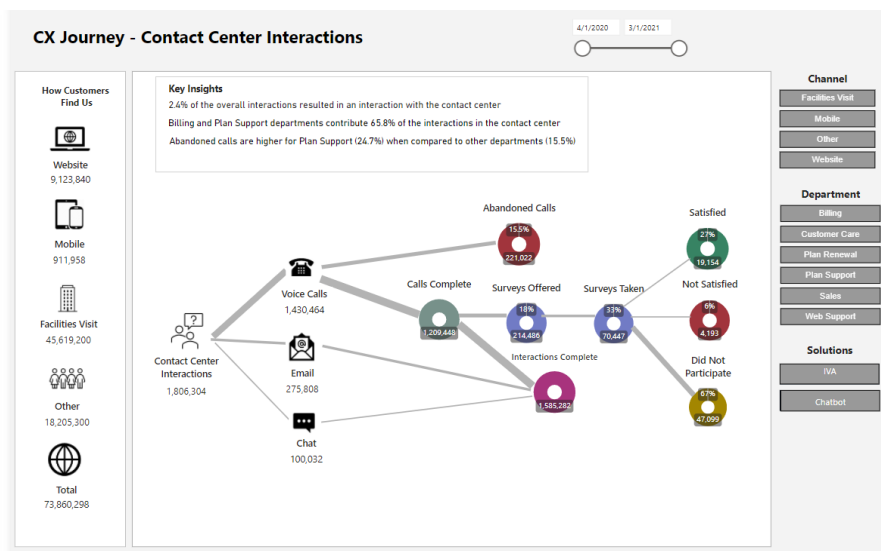


Figure 26 – Real Time QA Check

Analytics Outlining the Savings for an IVA

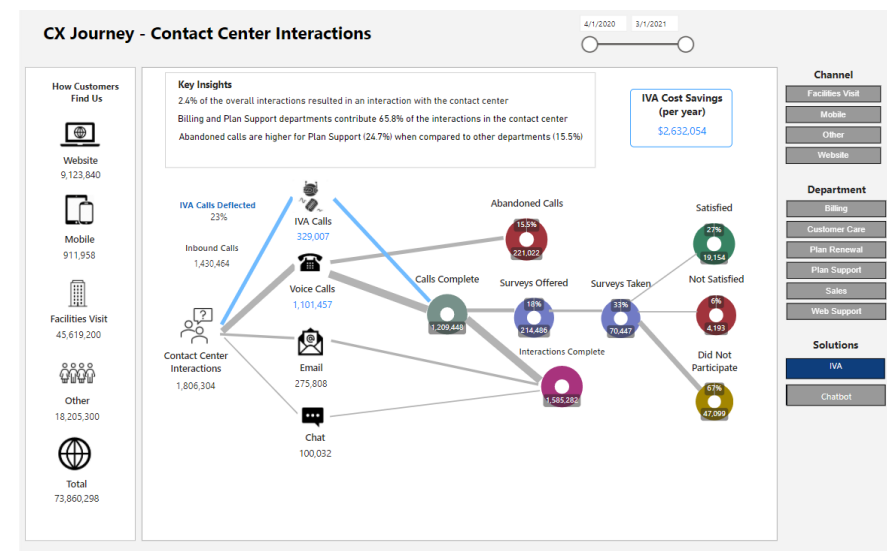


Figure 27 – Analytics Indicating Cost Savings Using Digital Technologies

Real-time insights should drive tangible business outcomes that should deliver better, smarter, faster, and frictionless customer experience for customers.

How to get started?

HGS is at the forefront of delivering customer experience to Fortune 500 companies for over 30 years. HGS has rolled out the Contact Center Analytics Solution called [PULSE](#) to 40+ clients in North America. HGS was able to provide immediate payback within the first year and was able to provide a positive ROI of \$1.1M over a 3-year period after implementing this solution.

Contact centers can gain immediate value from combining a few systems like ACD (Switch), Quality and then slowly integrate the full spectrum of customer experience systems. The analytics platform does not have to be a time-consuming effort and a costly ivory tower, but more of a service that can be rapidly deployed within weeks and require minimal to no FTEs to maintain and yet provide real-time insights at your fingertips.



HGS Digital

With over 250 digital successes and stellar client satisfaction ratings, HGS Digital creates frictionless customer experiences that solve complex business problems and improve people's lives.

We work with leading brands across the world to improve their customer engagement, optimize their operations, reduce costs, and increase revenue. As a technology-agnostic consultant—with partners ranging from Amazon, Salesforce, Google, IBM, Microsoft, and more—we are well-equipped to help you select and successfully implement the right tools for your specific needs.



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sales@hgsdigital.com

