



Speech Analytics:

Enhance Customer Experience

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1 Introduction

Companies today are facing significant challenges when it comes to customer service. With the complexity of customer interactions, the different available customer channels and increased customer demand, there is now more pressure for businesses to deliver a better customer experience. Speech Analytics solutions can help improve the Customer Experience, improve agent efficiency and provide back Business Intelligence data to an organization.

Speech analytics is the process of analyzing the actual speaking voice of your customers using different types of technology. Speech analytics works by turning your customer call recordings into metadata to be analyzed and structured into meaningful information for your enterprise. Most speech analytics solutions use recorded conversations as their input. Newer techniques and technologies, however, can now address both verbal and written interactions such as chat messages, email and even social media messages for real-time analysis. The added value in speech analytics is in its ability to analyze not only what customers say, but the customer sentiments within a customer interaction. Additionally it can determine whether or not agents are picking up on those customer cues.

Contact centers have primarily used speech analytics, but it can be an invaluable tool for other departments — such as marketing, sales, operations, product development, credit and collections.

The customer data that is collected and analyzed reflects customer needs, trends, expectations and issues.

Speech analytics uses include:

- Analyzing the **level of customer satisfaction**, including different emotional characteristics, as verbalized through customer interactions
- Performing a **root cause analysis** by structuring and categorizing volumes of customer data in order to identify the underlying reasons why customers call
- Identifying threats and **corrective actions** that can address recurring issues
- Identifying **opportunities** for integrating preventive processes
- Analyzing **trends** to identify when certain types of calls are mostly likely to be received
- Identifying contact center **quality performance** and training needs
- Measuring **agent performance and effectiveness** in handling callers

- Identifying **management needs** for interventions and support
- Identifying **performance needs** across the value chain
- Presenting a **comprehensive report** to key leaders in impacted areas of the organization

The insights from speech analytics help you determine the greatest improvement opportunities so your organization can gain a competitive advantage, realize cost savings, and develop an optimal customer experience program.

Contact centers have seen great success with speech analytics because of its ability to improve customer service and call center performance. In fact, the speech analytics market continues to grow exponentially each year. Organizations have found it improves the customer experience; increases customer retention levels, reduces costs, and advances compliance monitoring efficiency.

The true value of speech analytics, however, can be even more fully realized when it is used as an agent for change across your entire enterprise. Its results are most effective when you identify the improvements and implement the recommendations and sustain the program on an ongoing basis.

Gartner's 2015 Customer Experience Survey found that:

By 2016, **89% of companies expect to compete mostly on the basis of customer experience, versus 36% four years ago.**

By 2017, **50% of consumer product investments will be redirected to customer experience innovations.**

Centralizing customer data is key to understanding and managing your customer experience. Gartner found in a recent study that if your company wants to improve by 2016, it should focus primarily on collecting consumer data. With continually increasing competitive demands and more ways for buyers to make purchases, customer experience is proving to be the only truly sustainable competitive advantage. For companies to gain that competitive advantage, they need to provide customers with the best possible experience from all channels and in all of their interactions with the company, from marketing to sales and finance.

2 The Value of Speech Analytics to Understanding Customer Experience

In just 10 years, speech analytics has become an essential transformational tool for contact centers and is well on its way to being considered mission-critical.

You can improve your customer service continually by using speech analytics to glean important insights into customer satisfaction. Speech analytics tools largely automate the process, giving you the opportunity to evaluate information from thousands of recorded calls in minimal time and to put the data into practical use.

Speech analytics is not only important for customer service centers — it also can help:

- Identify **trends in the marketplace** to help you determine your business's overall reputation and performance
- Measure the **compliance of your team**
- Determine how well different **departments work together**
- Identify **which products and/or services are succeeding** and which ones aren't
- Reduce **your churn rate** — the number of customers lost due to poor customer service

Since speech analytics software can record emotions effectively, it also can help predict customer dissatisfaction by spotting gaps in your customer service and problems with your products and/or services.

You can use the recorded data to understand and predict new trends based on customer needs and the reasons they call in. You can base future decisions on these insights and anticipate trends in the marketplace more visibly and in less time.

While speech analytics primarily sits within the call center, **it has the potential to be an agent for change across the entire enterprise** because it identifies areas of improvement and ideas for different groups.

2.1 Data Collection for Contact Centers

You can optimize the efficiency of your contact center by using data provided by speech analytics, such as wait times and agent performance. Use that data as feedback to your customer service teams to improve quality of service, reduce customer wait times and affect other performance indicators as well.

The **10 key areas** in which speech analytics benefits organizations:

1. Clarify the reasons why people call your company.
2. Gain understanding of market trends and customer anticipations.
3. Provide insight into the emotional characteristics and satisfaction of your customers.
4. Monitor how well your customer support team is following their scripts and delivering the information required by your customers.
5. Measure how effectively your customers communicate with your support team by measuring holds, transfers, silences and interruptions.
6. Identify conversations that require further attention.
7. Optimize contact center operational efficiency.
8. Identify areas that increase customer satisfaction.
9. Improve customer loyalty.
10. Identify areas of improvement across the enterprise to ensure that you are focused on your customers and customer retention rate, which ultimately is about protecting and increasing your revenue.

3 The Challenges of Speech Analytics Integration

As with every opportunity, integrating a speech analytics program presents challenges to overcome. Some of these challenges include:

- Explaining to the different stakeholders throughout your organization that the value of interaction analytics goes beyond the contact center
- Dealing with the growing complexity of analyzing data from across all the different customer channels
- Understanding how the different technologies work
- Determining the best approach and the best technology for your organization

While implementing speech analytics can prove to be an exceptional means of increasing customer loyalty and boosting revenues, the continuous improvement process relies on how well you educate your customers and deal with their concerns.

And while recording customer interactions can provide important insight into customer preferences, current market trends and much more, the data quickly can become very complex to review and analyze. The process can be expensive, so stakeholders must be prepared to invest in the technology for a sufficient amount of time to see actual results.

Other things to be aware of when considering speech analytics:

- It can be difficult to assess an exact return on your investment, which can create obstacles when budgets are tight.
- Your organization must allocate significant time and resources for training and tweaking the system to work with your parameters, which will change from your initial settings.
- You may need analytics experts to get your team trained and fully functional if you don't have in-house expertise on hand.
- Integrating the new technology with your current customer management systems may prove difficult.
- Inherent challenges exist when selecting the best technology for your purposes because so many options are available on the market today.

Speech analytics solutions are complex.

They generate a great deal of data that has the potential to positively impact business operations.

You must leverage the data appropriately, however.

A dedicated in-house team is your best chance to offset most major challenges.

Additionally, once you discover the problems in your customer relations activities, significant management changes usually are required to implement new strategies. The organization as a whole must have buy-in to implement the changes necessary to achieve the best customer experience, as identified by the analytics.

For a speech analytics program to work for you and your company — and for you to reap the maximum benefits from the process, you need to get full senior-level sponsorship. At the same time, you need to develop buy-in from the customer-facing departments that the program affects the most.

You can accomplish this by:

- Communicating with the entire organization regarding the benefits that will result from its continued use
- Creating a continuous stream of reports that prove, with explicit data, that the systems in place are effective
- Rewarding mid-level managers and front-line workers for their continued support of the progress made with the information gathered

4 An Approach for Successfully Implementing Speech Analytics

Many companies have overcome these challenges and achieved transformational results with the use of speech analytics. Their success is due to the holistic approach they used when implementing their improvement program. Now that the process of data collection during the monitoring process has become mainstream, we already have a great deal to learn from the businesses that have used it to their merit. The following takes a look at some of the best practices for implementing speech analytics:

- **Set objectives and goals for the entire organization.** Perform a deeper analysis into your recorded calls to determine how and what influences your customers.
- **Analyze your data.** When conversations are tagged for a particular concern, listen to them and start listening to a selection of other live or recorded calls to determine keywords and phrases, as well as customer emotions, which are relevant to each of your business's current main concerns. Speech analytics is a largely automated process, so always check the validity of your most important findings. List the calls tagged for each concern and listen to them to determine whether or not they have been classified correctly. Use the recorded data to determine key performance indicators and to get a clearer idea of what you want to achieve by using speech analytics.
- **Establish baseline measurements.** Before you even implement speech analytics, establish baseline measurements so that you will know immediately the number of calls tagged for a particular concern, whether these measurements are concerns with price, conversion rates or any other KPI that your organization presently regards as a top concern.
- **Prioritize your initiatives based on their return on investment.** Focus on the most significant issues in your business. For many businesses, first contact resolution presents the first priority for continuous improvement. Use a high-level search system to uncover issues that your business might not presently be aware of. Refine your searches of the data gathered to determine the root cause of the problem.
- **Develop a plan of action to put your findings to use** across the organization. Speech analytics identify invaluable opportunities for improvement across all departments.

Understand that your organization should apply the recommendations throughout the enterprise, rather than just in your contact center.

- **Ensure collaboration across the enterprise.** Create processes to ensure that your company's various departments are able to work effectively together. Since speech analytics concern your entire organization, your teams should work together so that they can deal more efficiently with their customers.
- **Empower your teams** throughout your enterprise by making them aware of the advantages and capabilities of speech analytics software. Motivate them to provide better support by sticking to their scripts and knowing how to deal with customers effectively.

4.1 Additional Best Practices for Implementing Speech Analytics

By following the route others have taken, you can implement the process into your own company to start getting the rich results so many others are achieving. Find the best technology to suit your needs and begin reaping your own stunning results. Embrace some of the additional best practices already known:

- **Find the right talent** to choose the best software, train your staff, and implement the program. Then empower them to lead your program. Ensure that sufficient resources are available to do it right.
- **Engage business leaders** in your enterprise to wholeheartedly buy in. Make them fully aware of the potential that speech analytics can bring to the bottom line so you can maintain their support through the start-up phases.
- **Set goals** and baselines for your reporting that mirror the company's objectives.
- **Identify those factors that differentiate you** from your competition and focus your analytics on finding ways to maximize those characteristics.
- **Prioritize the key performance factors** that you can identify and improve quickly, which will allow you to bring a higher return on investment to the table more quickly and thus more effectively garner buy-in for more extensive research.

To ensure the highest productivity for your Speech Analytics program,

- Check that you have the appropriate bandwidth
- Provide ongoing training,
- Ensure you have any needed support and maintenance agreements
- Identify if you need additional servers for audio analysis and processing.

- **Collect and classify** data appropriately and then analyze the data as you receive it. Listen to a wide range of calls, both recorded and live, to find the phrases, keywords and terms most commonly used.
- **Review your findings** with your stakeholders throughout the organization on a regular basis.
- **Develop a plan** for quickly implementing changes as you discover weaknesses in your customer service delivery.

Expect resistance from front-line agents and prepare to initiate changes despite the challenges. With management fully supporting your efforts, you can lead by example and ease employees into the new standards of excellence. With enterprise-wide support, you can implement changes through effective training and subsequent rewards.

5 Different Types of Speech Analytics Solution

Speech analytics solutions have become far more sophisticated in recent years. Choosing the best way for your business to get the valuable insights it needs is a critical first step. Whether you choose solutions that match certain keywords and phrases, phonetics or tone, working out which technology to use is a significant challenge.

One of the most important considerations, and indeed the main technology behind speech analytics, is speech recognition technology. A speech analytics solution should be built on the basis of mining recorded calls and collecting the data involved. There are two main approaches to speech analytics:

1. Phonetics
2. Large Vocabulary Continuous Speech Recognition (LVCSR)

5.1 *Phonetic Speech Analytics*

Phonetic speech analytics detects individual sounds and sequences in recorded calls. While the processing time itself is much faster than the LVCSR technology, however, searching is a lot slower. Sounds alone cannot be indexed in the same way that words can be. And with phonetic systems, you can only listen to the recordings at a normal speed to determine the relevance of the content and to find the information you are seeking.

Phonetic systems do overcome a major disadvantage of LVCSR — they allow you to pick up words and names that are not otherwise listed in a speech recognition dictionary. For businesses that deal with unique product and service names or emerging industries, a speech analytics solution based on phonemes presents some important advantages.

5.2 *LVCSR Speech Analytics*

The underlying technology behind LVCSR speech analytics is actually much the same as phonetic systems — after all, all speech recognition systems work by listening to phonemes and converting them into textual data. LVCSR systems, however, deliver a complete transcription-based approach using a pre-defined dictionary containing tens of thousands of words. Fully transcribing the recorded audio, means that overall accuracy is far higher than it is using a phonetic system.

Unfortunately, though, the words need to be in the dictionary for them to be transcribed. More sophisticated speech recognition systems can help to overcome this limitation by allowing you to add your own words and names. Just remember that the processing stage of LVCSR systems also takes a great deal longer than the phonetic approach, though far less labor is required once complete due to faster searches.

5.3 Other Important Considerations

For many businesses, the priority is the accuracy of the data collected, but businesses often have a number of other important considerations, including the costs involved and the amount of man-hours required to analyze the data and put it to good use.

Some additional points to take into consideration when choosing a speech analytics program include:

- **Processing speed.** Processing speed refers to the initial processing of the recorded audio. Generally speaking, a slower processing speed means greater accuracy, so it is important to find the right compromise between speed and accuracy.
- **Search speed.** Search speed refers to the amount of time it takes to search through the collected data to find what you're looking for. LVCSR systems deliver text-based search algorithms, allowing you to search through the data for specific keywords and phrases with ease. Since people generally read about twice as quickly as they speak, the search speed is obviously much faster with LVCSR systems.
- **Use of text with business intelligence applications.** Speech analytics is not just about searching through recorded content, be it in the form of audio or transcribed audio. LVCSR systems deliver text that you then can use with other business intelligence applications, allowing you to make much more use out of the data by gleaning insights from literally thousands of recorded calls.
- **Adding new words and names.** Discovering new words and names is the most significant advantage of taking a phonetic approach to speech analytics. Fortunately, most LVCSR-based systems allow you to add new words to your dictionaries without the need to alter the underlying phonetic recognition procedures.

When it comes to making a choice, businesses that deal with particularly large archives of data or need to conduct audio forensic searches for legal purposes generally will be best off using a phonetics-based approach. Those businesses seeking to gather marketing and business intelligence, identify topics, and mine data for quick manual searches will be better off using an LVCSR solution. Of course, there is also no reason why your business cannot reap the advantages of both approaches, provided that you put them both to the best use.

6 Selecting the Right Technology

With such a vast range of technologies available on the market today, you may find it difficult to sort through the options to find the best use for your enterprise. The challenges are compounded by vendors who successfully up-sell their products without in depth knowledge for your needs.

Having in-house oversight to ensure your needs are being met is paramount to your success.

Some of the points to consider when selecting your technology include:

Integrate speech analytics holistically with your current operations to analyze all customer experiences.

Empower the best and brightest to take the new technology to the limit.

- **Which technology systems are you currently using?** As you survey your current IT usage, include agent desktop programs, social media monitoring tools, phone systems, customer relationship management software (CRM) and technical support capabilities.
- **Are all those systems speaking to each other?** If not, you may not be able to quickly assess an individual customer's reaction.
- **How do you measure agent productivity?** Additional metrics and duties may affect productivity levels in addition to eroding morale if the speech analytics processes are not integrated into their daily workloads smoothly.
- **How much training will you need?** And can time restraints interfere with the integration? When agents begin using new speech analytics, they often need to be able to navigate multiple screens and manage multiple logins when they are on a call and even when they are not.
- **How can you best integrate speech analytics with your current CRM?** While you work on integrating the agent's desktop with additional speech analytics software, you can maximize your results with certain programs.
- **How well versed are your current IT staff members in speech analytics?** Many software purchases come with extensive IT support from the manufacturer, while others may save you costs by simply providing turn-key platforms.

7 Operationalizing Speech Analytics into Your Processes

The first point of contact in a call center or any other department within your company must be met with the highest level of competence. The agents staffing your points of contact must hold the customer's satisfactory experience as their highest priority. Speech analytics that analyze that first contact, and all that follow, can help your organization meet its goals. Speech analytic programs are designed to increase customer satisfaction by defining the parameters that drive customer decisions, including, but not limited to:

- Cost
- Trends
- Buying opportunities
- Agent interaction, both positive and negative
- Problems with your buying processes
- Challenges with services or products
- Marketplace perceptions

Using speech analytics successfully means tracking your customer's journey, from their first contact via phone or your website to the final purchase.

Understanding Emotions Analytics (EA) allows you to get a handle on how a customer communicates verbally.

It enables you to understand a person's mood or attitude and how that affects the agent's response.

Contact analytics tracks your customers' experience at every touch-point so that you can pinpoint exactly where breakdowns occur and implement necessary changes to prevent churn. Combine the data you receive from your speech analytics software with other aspects of your operations to best evaluate your customers' journeys.

Operations that benefit from a marriage with the new data include:

- Text analytics
- Web analytics
- Interactive voice response systems
- Desktop dashboards
- Closing ratios
- Revenue

You will be better equipped to identify and quickly address opportunities for improvement when you bring your speech analytics into the scope of your entire operations. Additionally, executives can more easily digest the information when it's presented as a total package with complete graphs and reports that clarify the results.

8 Realizing ROI from Your Speech Analytics

If you follow the best practices for speech analytics, your organization, like most businesses, should find that your investment will pay for itself in about six to 18 months. For best results, however, treat speech analytics like any other business intelligence solution. You need to monitor the system and make sure it is operated by trained staff that can correlate the gathered statistics with what is actually going on throughout your business.

When your executive sponsors are prepared for the lead-time required until they see the rewards, you have time to get your analysts up to speed just like you would any other new business intelligence application. A full performance management cycle is necessary, including root-cause analysis, performance improvement, problem identification and consistent monitoring.

Remember: your ultimate goal is to garner a better understanding of your customer's needs and desires. Speech analytics provides a cost-effective way to make that possible. Instituting a smart plan that includes speech analytics can have measurable results across all aspects of your business.

With broad-based thinking and trained staff ready to correlate the statistics as they are received, you can begin proving the benefits of speech analytics quickly while continuing to implement the software in other areas of your enterprise. But you need the support of management to realize the full potential of the program.

Sustainable progress requires that you put in place a team that specializes in analyzing numbers. The work should not be delegated to contact center quality assurance specialists or on a part-time basis to support managers not fully engaged in the analytics process. Cross-department teams are best suited to analyze and prioritize results, as well as develop a plan of action to target needed changes identified by the analytics.

By far, the most impressive statistics you can provide to key financial and management stakeholders is reflected in the numbers. Some of the statistics you will generate to highlight the return on investment include the following:

Speech analytics will see continued innovation and sector growth. DMG Consulting expects vendors to continue to invest in making their solutions easier to use through seamless integration with complementary applications and new packaging options.

Cost reductions:

- Reduced monitoring and elimination of the need for continuous compliance checks
- Non-compliance regulatory damages and fines avoided
- Call volume reduction after realizing why customers place calls in the first place and your organization more readily satisfies their needs and optimizes each call
- Unnecessary callbacks eliminated after improving resolution rates on the first call
- Increase in self-service through your website and better use of interactive voice response programs
- Fewer quality assurance protocols needed
- Less time spent on each call, coupled with fewer transfers
- Reduced staff turnover when agents are properly trained

Revenue increases:

- Sales from increased call-conversion rates
- Higher debt collection ratios
- Vastly improved customer service evaluations
- Swifter response to competitive influences
- Reduced customer churn

9 In Summary

The goal of understanding your customers' wants and needs is highly desirable, particularly if you've developed a systematic way to use these insights. Speech analytics is the most cost-effective way to make this happen, as long as you have an established method to apply the findings.

Speech analytics impacts your enterprise in substantial ways that include:

- Better understanding of why your customers call
- Clearer handle on consumer expectations and current market trends
- Concise knowledge about the emotional characteristics of your clients as to how satisfied they are with your product or service
- Better management of your customer service team
- Higher quality of support team members who follow scripts closely and deliver the information customers demand
- Effective measurement of each call, with metrics on how long people are on hold, transferred, interrupted or dropped
- Expanded ability to identify key weaknesses in customer responses
- Optimized contacts throughout your organization, leading to improved customer satisfaction, increased loyalty and reduced churn

While the primary use of speech analytics to date has been within call centers, the technology holds the potential to fully optimize departments across the customer value chain. The results you receive from an integrated, fully functional, active speech analytics process in your enterprise can provide valuable insight into the customer experience across the board, from marketing and sales to operations, employee training and customer service.

Since its inception in 2004, the speech analytics industry has grown and improved significantly year after year. And while post-call speech analytics is a highly evolved strategic technology, real-time speech analytics are providing tactical benefits that impact the outcome of customer contact substantially. Experts in speech analytics software are emerging to fill the void to help companies use the technology. Bottom line, the time is ripe to take advantage of speech analytics to improve that all-important customer experience and provide a robust and rich experience for your enterprise, your stakeholders and your employees.

About Activeo

Activeo is a recognized leader in customer contact management helping clients to deliver a superior customer experience through their contact centers, web channels and an overall integrated customer strategy.

Our business consulting services provide clients with solutions to help them address different needs across the customer life-cycle:



Some of the typical services we provide

- ✓ Perform benchmarks and audits
- ✓ Assess and improve customer experience processes
- ✓ Develop Voice of the Customer programs
- ✓ Develop a strategic customer management plan
- ✓ Align customer service with strategic objectives
- ✓ Assess performance of your contact center
- ✓ Develop a performance management program
- ✓ Create, implement or relocate customer contact centers

**For more information,
please contact us at
www.activeo.com**