

CALL CENTER METRICS



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1 Introduction

As call centers evolve into contact centers, call center metrics have also undergone a change in priority. Today, metrics that measure customer satisfaction are more relevant than ones that measure agent efficiency. This is not to say that agent efficiency is no longer important. A successful call center can achieve a fine balance between the various metrics and prioritize them in alignment with the vision and mission of the parent organization or client companies. In this paper, we will look at the various call center metrics, their definition and the ways in which a call center can achieve them.

While quantitative metrics are easy to measure and improve, qualitative metrics are equally [important to determine the success of a call center](#). It is also important to focus on the requirements of the various stakeholders in the business – the callers, the agents, the clients, and the business owners. The metrics will also differ based on whether the call center is inbound or outbound based.

It is important to take a holistic view when deciding which metrics to track, as some of them may look good in isolation, but may end up being counter-productive for the business. For example, if cost per call is tracked as a metric, then agents may be tempted to finish the call even before satisfactorily addressing the caller's requirements. This in turn can negatively impact long term customer retention for the clients and even increase the number of customer complaints.

As business clients move away from a 'cost center' view of call centers to that of an integral customer service channel, several metrics such as average call handling time have gone down in priority.

Call center metrics are typically designed to measure and improve the quality and performance in key areas such as workforce management (metrics that forecast the number of calls, arriving at the optimal staff mix, creating staff rosters and so on), call quality management, technology optimization, financial management, and generating reports (about individual agents as well as client wise reports).

The main purpose of designing call center metrics is to make sure that the call center is meeting its goals and that each individual agent is achieving the true potential. Thus, defining call center metrics is only one of the steps in a larger performance management program. Before choosing the metrics that you want to track, it is important to define the goals and objectives for the call center at an overall level (for areas such as technology and finance), at a client level (for call quality aspects) and at an individual agent level (for workforce management). Once the goals are defined, the next step is to have a mechanism to analyze trends using the metrics that are being tracked and a process in place to identify root causes of any problems that are observed. Once the root cause is identified, there should be an effective mechanism to address the problem and imbibe a culture of continuous improvement in the call center.

All inputs for call center metrics come primarily from the technology and software being used in the call center. It is important to have a clear idea of the kind of metrics that you would like to track in your call center, prior to investing in technology. This will enable you to select a vendor who will provide the level of reporting that makes it easy to track the key metrics required. The Automatic Call Distributor is the key technology that enables capturing call related information such as blockage, delay times, abandon rates and average handle time. The workforce management system allows capturing agent related metrics such as agent efficiency, occupancy, idle time and so on. The Interactive Voice Response system is another source of information, which helps to capture caller related information such as number of self-service transactions, complexity of menu navigation, etc.

In addition to a direct analysis of data collated by the technologies used in the call center, you may also need to proactively collect information from customers through surveys to analyze customer satisfaction levels. An analysis of call recording will also provide valuable qualitative metrics that can be used to improve agent performance by identifying training needs. Similarly, agent satisfaction can be measured using employee surveys for insight into improving working conditions and reducing agent attrition. Ideally, the call center should ensure that an improvement in performance measures do not come at the expense of agent satisfaction.

Call center metrics can be broadly classified into service metrics, quality metrics, and performance metrics. In this paper, we will look at the various classifications of call center metrics in further detail as well as ways to measure them. We will also look at how these metrics can be communicated to the various stakeholders and how they can be effectively used to improve the quality, efficiency, and service levels of the call center.

2 Service Metrics

Service metrics are directly linked to the service delivery in the call center. They can be classified in two ways – the first measures how easy it is for callers to reach the call center, and the second measures how fast service is delivered by the call center.

2.1 Accessibility Metrics

2.1.1 Blockage

This indicates the efficiency of the call center network, by measuring the number of callers who get a busy signal while trying to reach the call center. A high value of blockage typically indicates that the call center does not have sufficient telephone lines to handle the call volumes.

Trunk blockage data is typically obtained either from the ACD or from the carrier, in order to identify the peak periods where callers received busy signals while attempting to reach the call center.

A good rule of thumb in designing the call center is to allow for sufficient lines such that not more than 2% of incoming calls are blocked at any given point in time. The blockage goals will also differ based on the nature of the call center. A captive call center serving a monopolistic industry (or one where switching costs are high), can afford to have a higher blockage as callers will not have another option to obtain services and will be reluctant to switch service providers due to the high cost involved. On the other hand, call centers used for assisting sales in highly competitive markets such as car rentals may be designed to have excess capacity to ensure that no caller (and thus potential revenue) is turned away. Emergency services such as hospitals may also have excess capacity to enable quick response times.

2.1.2 Hours of Operation

The number of calls arriving outside the normal operating hours of the call center is the metric that is used to determine whether to extend operations to another shift. Though there is no industry standard for an acceptable level of calls lost during non-operational hours, one can always track caller-ID information to check whether the callers choose to call back during normal operational hours or whether the call is permanently lost. Ultimately, a cost-benefit analysis needs to be performed before extending or shortening the operational hours of the call center.

2.1.3 Abandoned Calls

This metric is measured as the number of calls that are abandoned by the caller as a percentage of the total incoming calls during a defined period of time. This report can be easily generated from the ACD and is a key indicator to call patterns and call center performance. However, while a call center can attempt to minimize the wait time in queue, other factors such as the tolerance levels of the caller and the availability of alternate service channels also influence this metric. This metric is

more critical for call centers with revenue targets as a lost call in such a scenario directly translates to lost revenue.

If abandon rates are higher than acceptable rates, a call center may consider having more services offered through self-service options such as IVR, provided the customer base is comfortable with self-service.

2.2 Speed of Service

The speed of service in a call center can be measured in multiple ways. Metrics such as response levels, average speed of answer (ASA), and the maximum wait time in queue are good indicators of call center service levels.

2.2.1 Response Level

Response levels or service levels is the percentage of calls that are answered within a pre-defined threshold. Industry benchmarks typically hover around 90% of calls answered within 20 seconds. Depending on the criticality of the calls, call centers may define their own target service levels and measure performance against it. While service levels may be defined as 'X% of calls answered within Y seconds', a response time objective may also be defined to indicate the maximum allowable delay before a call is answered (for example, every call will be answered within 1 minute). Response level is a fundamental measure of how accessible the call center is. Lower service levels often indicate an understaffing of the call center. While measuring response levels, it is necessary to measure how consistently the call center is able to achieve the objectives at various times of the day, including during peak call volume.

Response levels, are not an indicator of call quality or customer satisfaction, and are only an enabler to achieve customer satisfaction by connecting the caller to an agent in an efficient manner.

2.2.2 Average Speed of Answer

The average speed of answer for a given period is calculated as the average delay in answering incoming calls for the period. It is a key metric that indicates staff availability and schedule adherence of individual agents. While most call centers measure ASA on a daily basis, it is important to measure it in shorter lengths, such as on an hourly basis to identify ASA during peak hours. Since incoming call volumes would vary, a daily average may hide problems during peak hours, which may be masked by better performance during non-peak hours. Work schedules of agents need to be adjusted in such a way that the number of times the ASA goal is not met during the day is minimized.

2.2.3 Longest Delay in Queue

The longest delay in queue (LDQ) is a real time metric that is usually closely monitored by call centers to identify immediate changes in staff scheduling. LDQ is a 'worst-case' indicator that functions as an alert mechanism for real time management of staffing. It is usually not used as a

historical performance indicator as the longest delay in queue can be a skewed measure. For historical performance measurements, average delay in queue is a better metric to be used.

3 Quality Metrics

Quality metrics are those that measure the quality of the call center in terms of the efficiency of call resolution as well as the actual call handling process.

Call quality metrics are often qualitative in nature and are assessed by recording agent interactions and analyzing them at a later stage against pre-defined assessment criteria. The measurement can be made quantifiable by assigning weights and scores for each criterion and thus arriving at an overall call rating. Some of the parameters used for assessing call quality include adherence to the call script, courteous greetings and conclusion, ability to offer first call resolution, offering accurate data to the caller, ensuring accuracy in post-call data entry and so on. In the next section, we will look at some of the parameters in more detail.

3.1 Call-Handling Quality

The quality of the call handling process is evaluated based on factors such as call etiquette, agent knowledge, error rates, and adherence to call scripts.

3.1.1 Call Etiquette

While it is difficult to quantify call etiquette, it is a key parameter that influences the caller's perception of call quality. Typically, call centers record and evaluate agent calls and identify training needs for agents who consistently fail to handle calls with the right communication skills. This is especially important in cases of difficult calls from irate customers.

3.1.2 Agent Knowledge

How well the call can be handled by an agent is also dependent on the agent's level of product knowledge. Agent knowledge can help to improve call center FCR rates. Knowledge is typically measured by the number of calls where the agents were able to answer the customer queries or resolve the customer problems satisfactorily.

3.1.3 Error Rates

This metric is typically measured as the amount of rework associated with corrections of errors that occur during calls. These are monitored at an overall call center level as well as at an individual agent level. High rework rates at the call center level point to the need for changing the call scripts or the workflows, whereas unacceptable rework rates at an agent level are an indicator of skill gaps and training needs.

3.1.4 Adherence to Call Scripts

One of the ways in which call centers can ensure uniform call quality is by having clearly defined scripts and process workflows for the typical queries that are received. Adherence to call scripts is necessary to ensure that the caller receives a consistent experience regardless of which agent

attends to the call. Adherence to call scripts can be measured by evaluating call recordings against a standard checklist.

3.2 Call Resolution

There are two metrics that are typically associated with call resolution – first call resolution and transfer rates.

3.2.1 First Call Resolution (FCR)

FCR is a common metric used to measure the ability of the call center to manage customer problems. FCR is the percentage of customer calls that are resolved during the very first call. FCR rates can be measured by type of call as well as by time of the day. It is also measured at an individual agent level to identify performance.

Studies have shown that among call center metrics, FCR has the highest impact on customer satisfaction and that every percentage increase in FCR rates is accompanied by a corresponding increase in customer satisfaction levels. Other benefits of having a high FCR rate include low operating costs, improved revenues, and higher agent satisfaction levels. This is because when FCR rates are high, customers are less likely to deflect to competitors and the number of irate customer calls comes down, thus reducing agents' stress levels.

A drop in FCR rates can indicate agents' potential skill gaps. It could also happen if agents are not empowered to make decisions on their own when handling customer requests. An analysis of the nature of requests that require multiple calls for resolution would help to identify ways in which FCR rates can be improved.

The biggest problem with this metric is that it is difficult to track and measure, often because 'resolution' is not easy to define. Some of the ways in which FCR can be measured are given below:

1. Measure the number of callers that call back within a specified time, say a week.
2. Monitor the calls and verify if the agent was able to satisfactorily handle the query/request of the caller.
3. Use a post-call customer survey.

Most call centers consider a call as 'resolved' if the agent did not have to transfer the call or have to perform some post-call work to complete the call requirements. However, the best judge of call resolution is the customer himself, and the best way to measure FCR is through a short survey to obtain customer feedback immediately after the call is completed.

3.2.2 Transfer Rates

Transfer rates measure the percentage of calls that are transferred to another agent for resolution. This metric is a key indicator of problems in routing strategies (such as skills-based routing) as well as individual agent performance.

3.2.3 Customer Satisfaction Levels

In call centers with IVR systems, a post-call survey on caller satisfaction may be used to measure customer satisfaction. Some call centers may also opt for detailed customer surveys to measure satisfaction levels with the call center experience and identify areas of improvement. While customer surveys are often carried out by clients, it would be a good idea for call centers to note caller satisfaction levels as well.

4 Performance Metrics

Performance metrics are an indicator of call center efficiency levels including areas such as agent utilization and cost control.

4.1 Call Handling

There are several metrics that measure the efficiency of call handling in a call center.

4.1.1 Average Handling Time

Average Handling Time or AHT is the total time taken to handle a call including the wait time, the call time, and the agent time spent on after-call work such as documentation. The main problem with this metric is that it only measures the call center and agent efficiency and does not take into account the caller's perspective. Since, the focus is not on the call outcome, an undue focus on this metric may cause agents to work towards closing the call quickly rather than aim for caller delight.

AHT is used as an input for determining the staffing requirements for the call center. Ideally, AHT should be measured at different times of the day as well as on different days in order to identify peak loads and variations in incoming call patterns. This will enable the call center to hire additional temporary staff only during peak periods rather than have excess permanent staff.

Average handling time may increase if agents are empowered to make decisions in an attempt to improve FCR and this may not necessarily be a bad thing. For example, if a caller is requesting a fee waiver, and the agent is empowered to authorize it, the additional time spent on the call can be justified by the time saved in paperwork later as well as the increased customer satisfaction generated following prompt handling of their request. Therefore, while measuring AHT, it is better to aim for consistency across agents for similar calls, rather than aim for a low figure.

This is a classic call center metric, which continues to remain a key focus area, despite its limitations.

4.1.2 After-Call Work Time

After Call Work Time (ACW) is a subset of the AHT and measures the time that the agent spends in post call paperwork before being available to handle the next call. This metric can be easily tracked through ACD reports. Regular measurement of ACW at the overall call center level will help to arrive at benchmarks against which individual agent's performance can be evaluated. While determining benchmarks, it is best to take an average value after discounting for the outliers (high performers and low performers). Benchmarks should be arrived at for different kinds of calls, as the ACW requirements would vary depending on the nature of the call.

4.1.3 On-Hold Time

On-hold time is the amount of time that a caller is kept on hold during the call. The aim of a call center should be to minimize the length of time that a caller is kept on hold as well as to reduce the number of times that the caller is placed on hold. At a call center level, if the average on-hold time is high, then it might indicate that the support systems (such as IT software) are slow to retrieve the information required by the agents. On the other hand, when used at an individual agent level, it can be a good measure of knowledge levels.

4.2 Resource Utilization

4.2.1 Agent Occupancy

Agent occupancy is the ratio of time that an agent is attending calls or doing after call work compared to the idle time. It is calculated as logged hours divided by the total available hours and is an indicator of how effectively the call center is able to schedule its staff. The aim is to achieve the right balance between too much idle time on one hand and overworked staff on the other. Typically, due to economies of scale, agent occupancy levels are higher in high volume call centers rather than entry-level call centers, even though they may have the same service level targets. Typically, call centers aim to achieve around 85% occupancy rates as any higher occupancy rates may lead to agent burnout and high levels of attrition. While small centers may struggle to improve the agent occupancy levels, larger centers with high call volumes need to proactively increase their number of agents in order to keep occupancy levels below an acceptable level.

4.2.2 Staff Shrinkage

Staff shrinkage is the metric that measures agents' non-productive time, typically spent on trainings, paid leave, coffee-breaks and so on. It is an important metric to track for effective scheduling of the agents so that SLAs on other metrics can be met consistently. While a certain amount of shrinkage is acceptable and even necessary for the call center's performance, it is important to track and control other unexplained shrinkage time such as time off the phone apart from designated coffee and meal breaks during work hours. There is no standard benchmark for shrinkage levels as it differs from call center to call center based on the time they earmark for activities such as trainings, meetings etc.

4.2.3 Schedule Efficiency

Call center workforce management is a science in itself and one of the crucial measures of staff's success in terms of scheduling efficiency. This measures the number of 'excess' or 'less' staff that a center has at periodic intervals of say, half an hour. The schedule efficiency report can either be generated automatically by the workforce management system or manually calculated based on the actual number of staff available as compared to the ideal number needed to handle the actual call volumes. As long as net staffing is within an acceptable range for most intervals then it indicates a robust schedule design. Small call centers will have a smaller acceptable range (+/- one agent) whereas a large center may be comfortable with a higher variability. Because peaks and troughs in

call volume may be netted off during the day and present a less realistic picture, it is important not to measure this metric as a daily average.

4.2.4 Schedule Adherence

Schedule adherence can be measured either as total hours worked against total hours planned for the day, or as the exact hours worked as planned. The latter is a more stringent measure, but is necessary to ensure that the variable call volumes are handled effectively. It is also an indicator of the agent's performance as this metric can be largely controlled by the agent himself. Typically, call centers aim to achieve around 90-95% of schedule adherence for their agents, which translates to roughly 3 to 6 minutes of free time per hour of schedule.

Schedule adherence typically consists of time spent on calls as well as after-call work. It also includes callbacks and idle time spent waiting for calls to arrive. However, trainings, lunch breaks etc. are not considered while measuring adherence levels because the agent is generally not scheduled for work during assigned breaks.

In recent times, this metric has gained more prominence as call centers attempt to focus on agent controlled metrics rather than trying to drive up metrics such as average call handling time over which the agents may not always have much control. In fact, by focusing on this metric, call centers have been able to drive up other traditional productivity measures such as AHT. There are several ways in which schedule adherence can be improved without making the agents feel that they are being micro-managed. Some of these include training agents on how schedule adherence affects other significant productivity metrics, providing real-time data to agents so that they can self-control their adherence levels, educating agents on how schedules are arrived at and finally also by providing agents the team average figures, so that they can rate themselves and improve performance.

4.2.5 Availability

Availability is the percentage of time that agents are available to handle calls. However, individual schedule adherence can influence overall availability levels. It is also influenced by factors such as time spent on other routine office activities such as documentation and research. Availability is usually measured at an overall call center level, though it can also be measured at the individual and team level as a measure of performance.

4.2.6 Forecast Accuracy

This is an important metric to track for workforce planning in the call center. Forecast accuracy is frequently measured as the variance between the number of calls received in the call center and the number of call arrivals forecasted for a given period of time. Underestimating the call volume can result in understaffing and consequent problems such as long wait times for customers, low customer satisfaction levels, overworked and burnt-out agents and even extended call handling

time due to the additional time spend on pacifying an irate customer who has spent a long time in the queue. On the other hand, if call volumes are overestimated it can lead to additional costs incurred due to over staffing as well as additional infrastructure costs.

It is advisable to measure forecast accuracy at half hour or hourly intervals because taking a daily or weekly average may not give a clear picture due to netting off positive and negative variances.

4.3 Cost Efficiency

4.3.1 Conversion Rate

This metric is typically used in outbound call centers or in inbound call centers that have a sales or revenue target. It is usually measured as the percentage of calls that result in a closed sale.

4.3.2 Cost per Call

This metric can be measured either as salary costs incurred per call or can include a portion of the overhead costs such as the software and network costs. Although it is ideal to have a fully loaded cost per call by apportioning all costs incurred by the call center to the calls handled, it may not be easy to arrive at. Cost per call is a good metric to track how well the call center resources are being utilized and to measure the return on investment for the center's operations as a whole. For outbound call centers with a revenue target, it is a good idea to measure the revenue per call as well.

4.3.3 Right Party Connects (RPC)

This is a metric relevant for outbound call centers. It measures the percentage of dial-outs that manage to get through to the right person. This metric can be improved with the use of automated dialers, updating the telephone number list, and choosing the right time to call. For example, if the target customer group includes working professionals, non-office hours may be the best time to call them.

5

Call Center Metrics as a Performance Measurement Tool

Call center metrics can be effectively used as a performance measurement tool, both for the call center as a whole and for individual agents. While designing agents' performance measures, it is important to have a mix of both quantitative and qualitative metrics.

Some of the common quantitative performance measures used for call center agents include first call resolution rates, transfer rates, average handle time, on-hold time, schedule adherence and after-call work time. Qualitative measures include telephone etiquette, communication skills, product knowledge, adherence to call scripts and proper closure of calls. Qualitative measures are often ignored by call centers, but are a crucial part of customer satisfaction. For example, research has proved that if a caller did not obtain a first call resolution, he is still likely to rate the call as satisfactory if other qualitative aspects of the call were handled properly by the agent.

The first step in the performance management process is to define performance goals. This could be in the form of targets measured against each metric that is being tracked at an agent level. Qualitative measures can also be included as part of the goals, and deviations from expected behavior can be measured using analysis of call recordings.

Once the goals are set, it is a good idea to inform the agent about how well he or she is performing on a day-to-day basis. The team leader should also be informed so that course correction can be made on a near real-time basis.

Having a measurable set of goals based on the overall objectives of the call center has the twin benefit of making the process fair and objective to the agent while aligning performance goals to that of the call center as a whole.

6 Reporting of Call Center Metrics

Having a well-defined reporting mechanism for call center metrics is essential to communicate the call center's performance to all the stakeholders in a timely manner. This allows agents and call center management to identify areas of improvement and take corrective action.

One of the key elements of a good reporting mechanism is to provide sufficient information against each metric to identify the root cause of the problem. Call center metrics reports should aid management in decision-making and course correction by providing a comprehensive view of the strengths and weaknesses of the various elements such as people, process, and technology.

A reporting strategy should be developed which defines the nature of information that shall be made available to each level (agent, team leads, senior management, and clients), the frequency of reporting, and the mode of communication etc. For example, near real-time reports may be made available on a giant LED screen in the call center itself, whereas daily reports may be e-mailed to senior management. Client reports may be in the form of a presentation made on a monthly or quarterly basis and would need to include trend data to showcase improvements achieved.

6.1 What Constitutes a Good Report?

A good report can act as a powerful tool to drive operational and financial improvements in the call center. For this, it is imperative that the information in the report is relevant to the audience with whom it is shared, is accurate, and is received on a timely basis. Often, agent-related information needs to be made available in a real-time for supervisors to be able to intervene with course corrections promptly.

The frequency as well as level of detail of reporting also depends on the audience of the report. Summary reports meant for clients are often generated less frequently than daily detailed reports generated for team leads and agents themselves. Typically, as reporting levels go up, the granularity of detail comes down. At the top most level, only summary data and trend analysis are relevant and if there is an interesting pattern noted in the trend analysis, then senior management may request more details pertaining to the data point being analyzed.

6.2 Real-Time Reporting

Real time reports in a call center are usually based on data available in the ACD or the workforce management tools. These are usually displayed in a wall-mounted screen or on the agents' desktops. The metrics that are typically tracked on a real-time basis include number of calls in queue, agents who are idle, wait-time of callers in the queue and so on. Supervisors use these metrics to manage call center operations so that the Service Level Agreements (SLAs) with clients are met. Most call centers have financial penalty clauses attached to their agreements with clients for defaulting on SLAs and therefore, successful call center operations demand real-time tracking of key metrics.

6.3 Performance Reporting

One of the ways in which call center metrics can be made more meaningful is to align them to the organization's goals and then divide them into goals for the business units, client account teams, and ultimately individual agents. Once targets are defined for each level, the metrics can be tracked and reported for performance management purposes as well. While goal setting is a top-down process starting at the organization level and culminating at the agent level, performance reporting is typically a bottom-up process which starts by measuring the level of achievement at the individual agent level and rolling it up to arrive at team level and organization wide reports.

7 Conclusion

Call center metrics play a key role in the quality framework of a call center. The metrics that a call center chooses to measure, report, and optimize have an impact on call center's customer service levels in addition to its operational profitability and business growth. However, the days of viewing a call center as a cost center and focusing purely on productivity measures are long over. Today, call centers are evolving as a primary service channel for customers and the aim is to satisfy and retain customers through superior service. Achieving the right balance between the various metrics ensures that the call center is able to achieve high caller satisfaction levels while still maintaining a cost effective and high performing business model where agents are motivated to achieve peak performance.