# **Call Center Operational Performance Indicators and Customer Satisfaction:** An Explanatory-Exploratory Investigation

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#### ABSTRACT

This article purports to investigate the relationship – in an empirical way – between the various operational indicators currently used for the management of call centers in Brazil and customer satisfaction. In this context, a set of call centers rendering services to a telecommunications company will be analyzed in order to verify which of their indicators are positively associated with customer satisfaction. A methodological approach based on surveys as well as stepwise multiple linear regressions is developed and applied in order to achieve the objective of this paper. The "First-Contact Resolution Rate" and the "Average Handle Time After the Call" indicators present a statistically significant relationship with customer satisfaction. Some alternative call center operational performance indicators are proposed, in an exploratory way, so as to convey an enhanced relationship between call center performance and customer satisfaction.

Keywords: Brazil, Call Centers, Customer Satisfaction, Key Performance Indicators, Operational Performance Indicators, Performance Measurement, Quality

#### INTRODUCTION

Despite the relevance of the call center industry, there is a lacuna in academic literature in correlating the relationship between operational performance indicators used by call centers and customer satisfaction. Some prescriptive paths are singled out in call center manuals – books that analyze call center operations and management-specifying a set of operational indicators

that need to be monitored to achieve excellence in customer service (Tom et al., 1997).

In the United States, two studies conducted by Feinberg et al. in 2000 and 2002 attempted to pinpoint operational indicators which determine customer satisfaction. The results encountered were, however, divergent. In the first study in 2000, two indicators appeared to have some connection with the customer satisfaction level (Feinberg et al., 2000). In the second study, in 2002, with the focus of research directed at the call centers that served the financial market, no

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performance indicator showed any correlation to customer satisfaction (Feinberg et al., 2002).

Thus, this article aims to contribute to the technical literature, seeking to answer the following research question: Which call center operational performance indicators have any bearing on customer satisfaction? This question is relevant as there is no consensus on this point in the academic world.

An attempt is also made to find empirical evidence to help company managers who either operate or hire the services of call center operations to develop strategies that improve customer satisfaction, thereby enhancing the competitiveness of these organizations, both in the domestic and international markets.

With this in mind, three operations of one of the leading companies in the Brazilian call center outsourcing market were analyzed. For reasons of confidentiality, this study will safeguard the identity of all the companies involved in the research

This article is structured as follows. After the introduction, the literature review used is set forth. Then, the research method used in this investigation is presented. Based on the research method unveiled, the data collected is analyzed in an explanatory way, in order to test the relationship between the operational performance indicators gathered and customer satisfaction. Alternative call center operational performance indicators are then proposed in an exploratory way. Lastly, some final remarks are presented as well as the managerial implications of this study for the call center industry.

#### LITERATURE REVIEW

#### **Call Center Operation:** An Overview

According to Dawson (1999a, 1999b), call centers are run by a group of hierarchically organized people, which may range from a small to a large number of participants. The staff is usually divided into different levels, with a larger group for first contact and a smaller group for more specialized enquiries requiring more

in-depth training of the agents, and involving a longer conversation time with the end customer.

In addition to the agents, there are also systems that can automatically handle less complex calls, thereby avoiding staff overload. These systems are called IVR (Interactive Voice Response). These are synthesized voice systems that by eliciting replies from customers can guide them to the automated service, such as obtaining a current account balance for example. According to Brown et al. (2002) for the financial sector, 80% of customers can be handled directly by automated systems.

When service cannot be handled directly by an IVR, the call is directed via an ACD (Automatic Call Distributor), to an agent who is able to handle that type of service.

Once a call has been directed to an agent, the latter handles the enquiry normally backed by a computerized service system. This system may be integrated to a CTI (Computer Telephone Integration), which can, for example, after receiving the identification data from the ACD call, conduct a database search in order to identify the customer who is calling.

This group of systems provides an infinite number of data that are processed into various operational indicators, which are monitored by call center managers.

This article seeks to establish precisely which traditional operational performance indicators gathered by all of this hardware and software structure have any bearing on the level of customer satisfaction with the call center.

### Operational Performance **Indicators**

According to Black (1998), the efficiency of call centers is a critical aspect for the image of the organization. However, in the academic literature on call centers, there is no consensus on which operational performance indicators are related to customer satisfaction. Therefore. following the research stream adopted by Feinberg et al. (2000, 2002), a number of indicators considered fundamental to the achievement of excellence in operating a call center, according

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