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SUBJECT AREA: ORGANIZATIONAL STRATEGY AND BEHAVIOR

## Job Characteristics and Their Implications on the Satisfaction Levels of call Center Employees: a study on a large telecommunications company

*As Características da Função e seu Impacto nos Níveis de Satisfação do Funcionário de Contato: um estudo em uma grande empresa de telecomunicações*

*Análisis de la función y sus repercusiones en los niveles de satisfacción de los empleados de call center: estudio en una gran compañía de telecomunicaciones*

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### ABSTRACT

Standardization of answers and cost reduction efforts have provided a specific relevance to call centers in the commercial strategy of many service companies.

The aim of this research is to analyze to what extent job characteristics, as identified by Hackman and Oldham (1980), are essential determinants for the level of satisfaction of the contact employee in a call center.

Indeed, literature clearly suggests that job characteristics have a huge influence on employees' work performance, their level of satisfaction, and, as a consequence, on the quality of services provided to the customers.

In order to answer these questions, we have performed a case study, based on a questionnaire survey.

Findings reveal that employees feel that their jobs are highly structured and that they are being closely monitored, what might worsen their performance regarding the contact with the customer, mainly in what concerns customization, flexibility and adequate answer in a single contact. In order to increase frontline employees' performance, a proposal that enhances job autonomy and values intrinsic satisfaction is made. The research suggests the need to change the way companies view contact employee's job, in a call center context, not always perceived and designed as strategic or determinant for customers' satisfaction, which calls for additional institutional investment in the redesign of such job.

**Keywords:** Job design. Frontline employees. Call center.

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## RESUMO

A padronização das respostas e a redução dos custos deram grande relevância aos *call centers* no que se refere à estratégia comercial de muitas empresas de serviços.

O objetivo desta pesquisa é analisar até que ponto as características da função, tal como foram identificadas por Hackman e Oldham (1980), são determinantes essenciais dos níveis de satisfação do funcionário de contato no *call center*.

Efetivamente, a literatura sugere claramente que as características da função têm grande influência no modo como os funcionários desempenham seu trabalho, no seu nível de satisfação e, conseqüentemente, na qualidade de serviço prestada ao cliente.

Procedemos à realização de um estudo de caso, apoiado em um conjunto de dados coletados por meio de questionário.

Os resultados revelam que os funcionários sentem seu trabalho como sendo altamente estruturado e intensamente monitorado, podendo prejudicar o desempenho no que se refere ao contato com o cliente, sobretudo em relação à desejada personalização, flexibilidade e resposta em um só contato.

De modo a aumentar a satisfação dos funcionários de contato, é apresentada uma proposta que reforça a componente de autonomia e valoriza a satisfação intrínseca associada à função.

Em síntese, salientamos a importância de alterar o modo como as empresas encaram a função dos funcionários de contato, em contexto de *call center*, nem sempre percebida e concebida como estratégica, propondo um maior investimento organizacional no redesenho da função.

**Palavras-chave:** Desenho da função. Funcionário de contato. *Call center*.

## RESUMEN

La estandarización de las respuestas y la reducción de costos han aportado una gran relevancia a los *call centers* con respecto a la estrategia de negocio de muchas empresas de servicios.

El propósito de esta investigación es analizar en qué medida las características de la función,

identificadas por Hackman y Oldham (1980), son los principales factores determinantes de los niveles de satisfacción de los empleados de contacto en el *call center*.

De hecho, la literatura sugiere claramente que las características de la función tienen una gran influencia en cómo los empleados realizan su trabajo, en su nivel de satisfacción y, en consecuencia, en la calidad del servicio prestado al cliente.

Se ha realizado un estudio de caso, con el apoyo de un conjunto de datos recogidos mediante encuesta.

Los resultados muestran que los empleados sienten que su trabajo está muy estructurado e altamente vigilado, lo que puede degradar el rendimiento con respecto al contacto con el cliente, particularmente con respecto a la personalización deseada y a la respuesta en un solo contacto.

Para aumentar la satisfacción de los empleados de contacto, se presenta una solución propuesta que refuerza el componente de la autonomía y valora la satisfacción intrínseca asociada a la función.

En resumen, podemos destacar la importancia de cambiar el modo en que las empresas contemplan la función de los empleados de contacto, en el contexto del *call center*, no siempre percibido ni concebido como estratégico, proponiendo una mayor inversión en el rediseño de la función de la organización.

**Palabras clave:** Diseño de función. Empleados de contacto. *Call Center*.

## I INTRODUCTION

Contact employees represent the organization before the eyes of the customer, being very relevant to analyze the how they perceive their job.

The customer service job is frequently presented as a standardized and very controlled job, in which who does what and how is clearly defined. The specification of this type of services, all called mass services, is defined *a priori* without

the participation of customers in the design of the service process. There are alternative routes or choices, though always predefined. Available scripts foresee the customers' questions and identify, through a decision tree, the answer to be given at any given time. The job thus assumes a higher technological complexity. The human factor associated to the job, related to the customization of the contact, is thus circumscribed by the way the information is conveyed in the moment of such contact, and not by the contents of the information provided, which is mostly predefined.

Within the customer service context, in call centers, employees are mediators of the relation between the company and the customer, being crucial to perceive the level of satisfaction the contact employees have in regard to the function they perform, since the satisfaction of employees is frequently an important precedent of the customers' satisfaction (GIL, BERENGUER, CERVERA, 2008; COOK *et al.*, 2002), the ultimate goal of the organization. From this knowledge, it is possible to redefine the job contents and to outline a description that inculcates in the contact employees the desired behaviors.

With starting point in the literature that discusses the job design and its evaluation, this research has the main aim of identifying the main dimensions and parameters of the service job at a call center of the main Portuguese telecommunications companies, and to analyze its impact on employees' satisfaction.

The contact centers area has increasingly grown in recent years in terms of business volume and strategic relevance. The issue of standardization of the answer given to the customer, along with the issue of cost reduction, provides the contact centers with a leading role in determining the commercial strategy of companies.

The contact center can be defined as a dedicated operations service, in which each computer is used by the operator to receive inbound calls or to make outbound calls. Such calls are processed, distributed and controlled by an Automatic Call Distribution (ACD). Another

determinant system in the operations of a contact center is the Interactive Voice Recognition (IVR), responsible for forwarding calls according to predefined routes, assuring the most proper and timely service to the customers, pursuant to the commercial strategy of the company.

In service companies, and more specifically in the field of telecommunications, we see a structural change in the design of jobs, namely, in the jobs of contact with the customer. Predefined and automatic patterns of answer are defined, and are available through the interaction between the customer and the "machine". The self-care is developed, which allows the customer to autonomously interact with the system in order to satisfy his/her request, with no intervention of the contact employee. Companies develop automatic answer systems, making them increasingly "smart", so that they can answer an increasing number of questions from the customer without the resource of the human contact.

On the other hand, it is intended that the contact employee flexibilizes the answer, creates a "tailored answer" to each customer, unique one, thus ensuring a customized way of serving the customer. Thus, the requirements of the job that implies the direct contact with the customer become complex.

In the automatic service, a fast, effective, and low cost answer is provided to the customer. In the customized service, the trust in the organization is increased through the identification and understanding of the customer's needs, and an answer exceeding his/her expectations, which justifies a higher investment in the service job.

Each one of these service models obviously has very different consequences, with impact in the definition of the contact employee work features. Consequently, the redesign of the job frequently undergoes contradictory pressures, which makes harder to define the work features to develop.

Effectively, companies are generally convinced that the competitive edge is determined by the effective combination of the technology progress and the low cost work resource, although

still capable of creating in the customer the idea of a competent and customized service.

In this regard, we identify situations increasingly frequent in which companies outsource services to service providing companies. This happens in all sorts of jobs, mainly in those implying the direct contact with the customer. What happens is that, upon outsourcing those so-called “moments of truth” (GRÖNROOS, 1984) to third parties, the company takes important risks.

If, on one hand, cost reduction is essential for the survival of the company, on the other hand, outsourcing contact jobs represents for the company a significant loss of proximity with the final customer, which can decisively jeopardize customers’ satisfaction, and consequently their loyalty along time.

Service companies in the field of telecommunications transfer the jobs of contact with the customer when outsourcing jobs in contact centers. Therefore, they lose some control on the way the job is performed/developed, and might jeopardize the proximity with their customers, harming the “real time” monitoring of their satisfaction and the identification of changes in their expectations. From the viewpoint of client companies, by accepting the outsourcing of customer contact jobs as a legitimate option, it is important to define a model that assures, as much as possible, that the service is provided according to the customers’ expectations, and to convert it into contract aspects that can be properly monitored and evaluated.

The aim of this work is to analyze to which extent the job features, as identified by Hackman and Oldham (1980), are essential determinants of the levels of satisfaction of the contact employee in the call center. Literature clearly suggests that the job features have major influence on the way employees perform their work at their level of satisfaction, and consequently on the quality of the service provided to the customer. We have carried out a case study supported by a set of data collected through a questionnaire survey.

We have organized this article into five sections, including the introduction. In the second part, theoretical references of the

study are found, elaborated from reflections on the job analysis. The third part details the methodological procedures of the research. The fourth part introduces the results, and in the final considerations the conclusions of the article, as well as its limitations, can be found.

## 2 THEORETICAL REFERENTIAL

Different theoretical approaches of several researchers, whose work is somehow related to the studied topics, the job design in the services field, the job as a motivation factor for contact employee, and its impact on satisfaction, were used as the basis for the development of this research.

In this regard, it was important to clearly define what a service is and to position the service at issue, in terms of dimensions such as contact time (volume) and degree of customization (variety). Soteriou and Chase (1998) mention that services, beyond their intangible and highly heterogeneous nature, are characterized by the simultaneousness between production and consumption, and consequently by the direct influence of customers (in the condition of co-producers) on the quality of provided services. Silvestro (1992, 1999) developed a service process model through the analogy with the production process model. According to this author’s model, we differentiate three types of services: Fitzgerald *et al.* (1991) highlight that the nature of the relation with the customer is essentially very different in mass services and in professional services. In professional services the relation with the customer is a relation built up in the long run, while in mass services the relation that is defined between the customer and the organization, rather than a single relation between individuals, is a standardized relation. On the other hand, Gil, Berenguer and Cervera (2008) consider that it is important to perceive the role of the service finding, the service value, and the job satisfaction impact in regard to the customer’ satisfaction. Authors differentiate as variables to be studied in finding the service (or “moment of the truth”):

the service value perceived by the customer, the global satisfaction of the customer, and the job satisfaction of contact employees.

This research focuses on the job design. Within this scope, several works analyze different models of job design, which mostly derive from different work conceptions.

Authors such as Bowen and Lawler (1992) defend that services based on routine tasks, replaceable by technology and in which employees have restricted and specific competences, with low growth and development needs, are more adjusted to the perspective of the “production lines” management.

The current issue of the importance of technology associated to the job design, mainly in the field of services, again brings out the discussion of the Scientific Management of Work, making the ideas and concepts of Taylor even more current (BUTLER, 1991).

Various authors have revisited Taylor and the “Scientific Management of Work” with the aim of rediscovering the concepts defined by the author, and rereading his principles in light of the current organizational scenarios (BOJE, WINSOR, 1993).

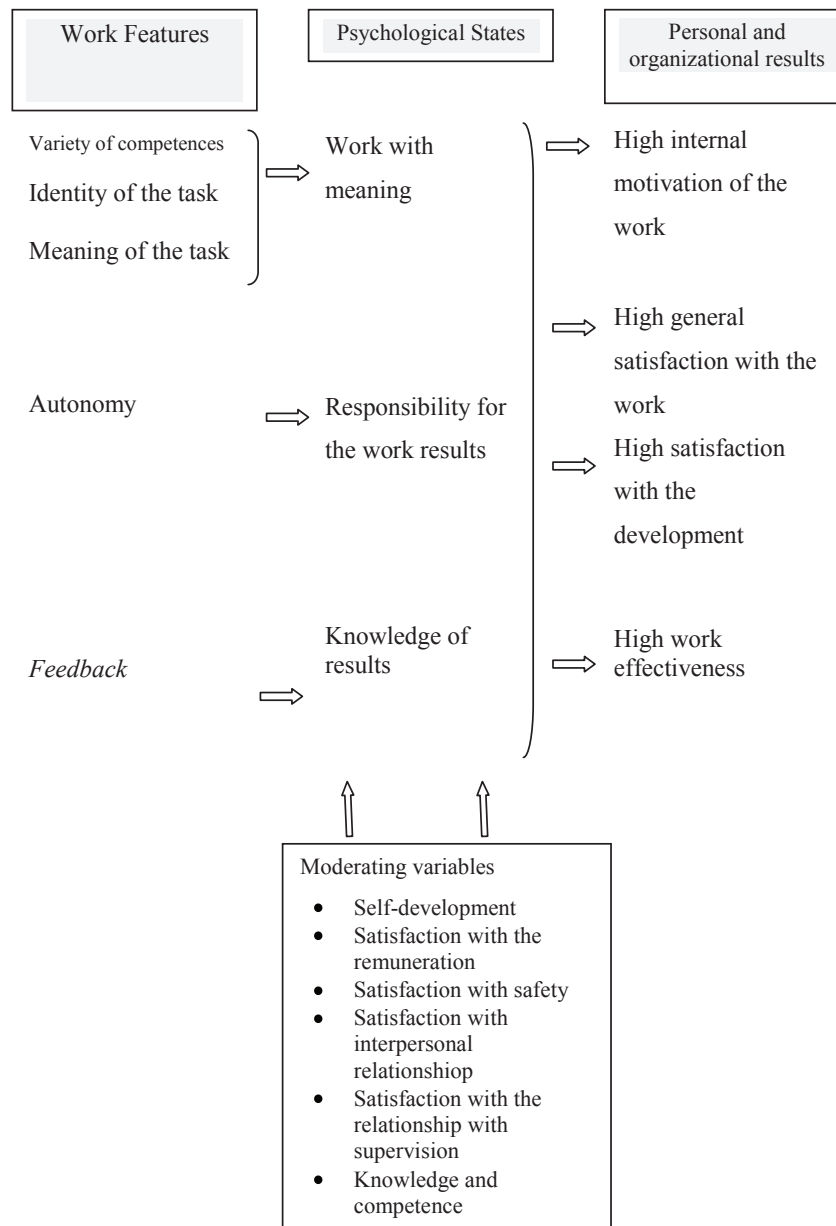
The importance Taylor gave to the detailed definition of each function, breaking it down into specific tasks, the value granted to the selection and formation of the job position, the importance of the work being performed according to scientific principles with which it was defined, everything allows to regard Taylor as the precursor of many management practices nowadays recommended within the scope of mass services.

It is in light of this debate that the job design tends to be developed. The approach followed in this work is strongly inspired in the model of Hackman and Oldham (1980), according to which the work satisfaction results

from the features of the work performed by the individual. The model developed by such authors has as assumption the fact that individuals can be motivated by the intrinsic satisfaction resulting from the performance of the job or from the work features. According to this assumption, it is possible to develop manners of work organization that enhance the job functions, in order to increase the individual motivation and satisfaction.

Several studies (ALMEIDA, FAISCA, JESUS, 2009; MOOSAZADEH, AMIREMAILI, ESFANDIARI, 2011) confirm that the dimensions of the job features are represented in the five factors identified in the model: variety of needed competencies, identity of the task, meaning of the task, autonomy and feedback.

The diagnostic performed by this instrument allows developing the “human factor” in the work place by enhancing its functions. The job features model contributes to distinguish the work that motivates (ARNOLD, 2005). Employees’ satisfaction is related to the perception they have of the meaning of their work, to the responsibility they feel in regard to the result of their work, and also to the knowledge they have about the results of their work. Almeida, Faisca and Jesus (2009) identified about thirty instruments that were developed and applied since the late 1970s with the aim of evaluating the features of the work in organizations. Such authors highlight the Job Diagnostic Survey (JDS) by Hackman and Oldham as the most used instrument, associating to it the advantage of be based on its own theoretical model. The Model (Figure 1) can be used to identify the specific features of the work that need to be enhanced the most, and also to increase motivation, satisfaction and performance of workers.



**FIGURE 1** – Model of job features (Hackman & Oldham)

**Source:** Adapted from Boonzaier, Ficker and Rust, 2001.

Gil, Berenguer and Cervera (2008) mention that the level of satisfaction with the job of employees comes up as the moderator of the relation between the customer's perception and the service value, thus contributing to the customer's satisfaction. Cook *et al.* (2002) define the service value chain, placing the customer's satisfaction ahead the employee's satisfaction.

Briefly speaking, several organizational models allow to perform a critical evaluation of the

job concept. It is this evolutionary perspective of the job concept that we intend to integrate. In parallel, an organization works to satisfy customers and to attain such goal it will have to properly manage its determinants. As some of these determinants are connected to the contact employee and to the job, its design is clearly important.

Typically, the job performed by the contact employee of the call center is highly monitored and supported by sophisticated information

supports. The development of such technological component is regarded as facilitating the quick access to information, and assuring a certain standardization/consistency of answers. We are thus in face of a standardized and routine job that, as defended by Taylor, makes use of a detailed analyzed of tasks in order to determine the most economic and effective process of organizing the work. Consequently, descriptions in which the work process in the contact center or in the relationship centers is shown as being characterized by the total control of the contact employees' activities are frequently identified. It is possible to know the service time, to record the call audio, to record all the applications consulted by the communicator, to access all the registrations done. The answer given by the contact employee is foreseen and standardized for making use of previously elaborated service scripts.

The impersonal definition of the job and its excessive monitoring can thus be inhibiting factors of an autonomous, flexible and understanding attitude on the part of the contact employee, with predictable negative consequences in the perception the customer will have of an extremely rigid service not adjusted to his/her individual needs.

If the secret of the customer's loyalty is in the "customization", in the "humanization" of the service, how to assure such components in the answer given by the company?

This issue is especially relevant in the context under study, considering that, on one hand, the high number of customers daily served and their intrinsic differences, and on the other hand, the high number of contact employees working in the same job, the turnover and the geographical dispersion registered in the physical location of several call centers or relationship centers.

The evaluation of the features of the contact employees' job, from the perceptions they have of the role they perform, is the support of this research. The topic is investigated within the context of the major Portuguese telecom company, and is based on data collected from contact employees of the call center.

Our starting hypothesis is that the work features, such as identified by Hackman and Oldham (1980), are important determinants of the contact employees' satisfaction.

Effectively, in line with the literature (GIL, BERENGUER, CERVERA, 2008; COOK *et al.*, 2002; GOLDSTEIN *et al.*, 2002; NISHII, LEPAK, SCHNEIDER, 2008; FEINBERG *et al.*, 2000; GERHART, 1987), it seems reasonable to us to admit that aspects such as autonomy, task identity, feedback, task meaning, or the variety of the needed competences, not only condition the employees' satisfaction, but are also reflected on the way they perform their jobs, which are the object of the evaluation by the customer.

The discussion of this model can change the way companies face such jobs, not always perceived and conceived as strategic or determinant for the satisfaction of customers.

The contact employees have a leading role in organizational terms, assuming that happy employees make their work better, and thus contribute to the increase of the customers' satisfaction level. The job design can then assume a relevant role in satisfying the contact employee and the customer.

## 2.1 The job in a historical perspective

Organizations and the way the work is organized reflect the contemporariness of the societies in which they are inserted. Organizations started being regarded as closed systems, and were subsequently recognized as open systems, in permanent interaction with the surrounding environment.

We can define an organization as a set of people inserted in a structure, who work together and in an organized fashion to reach common goals (PORTER, LAWLER, HACKMAN, 1975).

It is possible to affirm that the job is generically considered as a set of tasks to be performed by the worker. It is consensual that the design of jobs determines the way the organization functioning and activities are structured.

In an evolutionary perspective, since the industrial revolution theoretical approaches

of the work organization integrate the job as a determinant element of various conceptions.

The industrial revolution triggers the need of understanding organizations with a scientific and rational base. In this context, classical approaches lead by Taylor (1856-1915), Fayol (1841-1925), and Max Weber (1864-1920) appeared at the end of the 19<sup>th</sup> century and beginning of the 20<sup>th</sup> century. At that time, the amount of goods and services production became the ultimate goal of organizations. The scientific rationality of the work organization was based on work division and formal authority, in view of the simplification and specialization of jobs and tasks. The increase of productivity and accumulation of capital were possible if the organizational rationality was generalized to all companies (SMITH, 1981). Despite sharing the defense of rationality and the pursuit of the maximum efficiency, each of the three authors applies their analyses in different factors. Taylor highlights the importance of studying tasks, Fayol points out the company's structure, highlighting the importance

of administration, and Max Weber distinguishes the bureaucratic rationality in the organizations.

The Taylorist model of the scientific organization of work refers to the rationalization of the work through methods and technical studies that allow to systematically perfect times and movements required from workers in executing their tasks. The scientific management of companies was thus associated to the development of the work process rationalization (FERREIRA *et al.*, 2001). The standardization of tasks allowed them to be subdivided into successively simpler and more elementary components, which led workers to perform their tasks in a routine and repetitive way. In order to assure more profitability to the company, Taylor defended "the right man in the right place" (FERREIRA *et al.*, 2001).

In brief, as evidenced in Table 1, the three authors of the classic approaches talk about tasks and jobs to be performed in the organization in a specialized, standardized, hierarchized way, governed by rules and regulations.

**CHART 1** – Classic organizational theories and conception of the job

Authors	Theoretical perspective	Dimensions	Job
Taylor	Scientific organization of the work	Scientific study of the task	Mechanized, automated and routine job
Fayol	Administrative rationality	14 general principles of administration	Specialization of tasks and freedom given to each one to perform the task
Weber	Bureaucratic rationality of organizations	8 basic features	Specialization of tasks, standardization of procedures

**Source:** The authors

The truth is that in fact the constant pressure on the workers' productivity, along with the growth of organizations, results in a degraded work environment, in the increase of work accidents, turning organizations into a critical space of latent conflict, with impact on the productivity attained (FRIEDMANN, 1945, quoted by FERREIRA *et al.*, 2001).

If, on one side, the organizational environment has an increasing more important role in the analysis of the attained effectiveness and productivity, on the other hand, the internal

functioning of organizations from the viewpoint of classic approaches does not integrate the analysis of the human behavior in the organizations, in its psychological and social aspects (FERREIRA *et al.*, 2001). To fill this gap, the School of Human Relations is created in the United States, calling the attention to the human factor as determinant of the internal functioning of organizations. The School of Human Relations has Elton Mayo (1880-1949) as its main author. He values the internal functioning of organizations, highlighting social and human problems resulting



from the physical and psychic degradation of the individual in the work environment.

The efficiency of organizations thus starts to be seen as the result of the interdependency of technical and human subsystems in the context of the organization. This theoretical perspective regards companies as a social system, with informal structures of groups, yet still not considering the interactions between organizations and the society, regarding organizations as closed systems, similar to what happened with classic approaches.

This change in the conception of the organization has consequences in the level of the job function. The job is no longer perceived from a strictly individual, mechanized, automated, specialized and standardized perspective. Aspects such as motivation, leadership, satisfaction or acknowledgment start to be valued in the job. Thus, the organization gains a new entity, the informal structure of groups, in which individuals interact in the design and performance of their jobs.

The socio-technical approach assumes the organizations as open systems, with interaction between the technical system and the social system inside it. On the other hand, every organization interact with the outside environment, in order to be different and to grow in a competitive environment. Parsons (1982) highlights the importance of structures and functions of the social system in the structural – functionalist model. Katz and Kahn (1978) approach the analysis of organizations from a systemic perspective. To these two psychologists, the organization should be understood as an open social system, being distinguished in its specificity through the action of individuals and of groups in such space and in such context. From this viewpoint, the role to be performed by the individual, which we can regard as close to our job concept, is not a static reality, but rather the result of a negotiation, being influenced by several systems of the organization, such as the technological system, or the social system.

In the attempt to again focus on our analysis of the central concept of the job, we can say that, in addition to the technological system, the system is also constituted of interacting people. The job and its design determine the way of organizing people and each job position is also determined by the psych-social features of the individual.

The study of the ways the work organization is adopted in the organization allows appraising the level of adjustment between the technical system and the social system. Based on this analysis, we can evaluate the productivity, the absenteeism, work accidents, quality, and turnover. We can also perceive the level of autonomy of jobs, the decision-making process, the responsibility associated to them, the organizational environment, and thus to identify actions that can solve the organization problems. Such new ways of organizing the work, resulting from the socio-technical research, distinguish the individual as the core element of the work organization, participating with his/her creativity and responsibility in the performance of tasks and in decision-making.

Contingent approaches, like the socio-technical approach, also regard the organization as an open system. The news of the contingent theory lays on the emphasis given to the outside environment, regarded as being determinant in explaining the internal functioning of the organization (FERREIRA *et al.*, 2001). Threats and opportunities of the outside environment determine the way how the organization works, the way how structures are defined, how jobs are outlined, the leadership model, and the decision-making processes adopted. The new jobs are more flexible and polyvalent, requiring broader competences. On the other hand, contract bonds become more precarious, which changes the system of relations in the organization (FERREIRA *et al.*, 2001). Woodward (1977) developed an investigation to perceive the relation between technology and the configuration of

organizational structures, in regard to work division, authority levels and communication.

Within the scope of contingent theories, organizations are regarded as open systems, twice dependent on the outside environment, through the inputs needed to the functioning of the organization and the outputs produced and exported. On the other hand, organizations should assure their systematic and permanent adaptation to the contingencies of the outside environment by adjusting the organizational structures, the leadership manners, the hierarchical levels, the decision-making processes and the jobs design.

## 2.2 Some aspects of the current job conception

Throughout time, the job getting more plasticity and becoming a leading role, thus being increasingly decisive in the strategy of the organization.

Various authors (COSSETTE, 2002; BUTLER, 1991; HALPERN, OSOFSKY PESKIN, 1989; PHELPS, PARAYITAM, OLSON, 2007) have revisited Taylor and the “Scientific Management of Work” with the aim of rediscovering the concepts defined by the author, and rereading his principles in light of the current organizational scenarios. According to Butler (1991), many of Taylor’s ideas, many of his concepts and rules, now seem to be more adjusted to the organizational scenario than at the time when they were conceived. Taylor identified “management principles” that can be current and opportune to date. Even the need of enhancing the job, so discussed nowadays as a factor of motivation, was, according to this author, identified by Taylor when he refers to the need of employees developing new and more demanding capacities, as well as to the need of being transferred and promoted, then assuring the development of human resources.

The issue of the technology importance itself and the impact of the technology change on the job design are also mentioned by Taylor

when he says that if technology changes, so the worker’s competences and the work requirements do. Taylor considered that new jobs should be explained in details to employees, by the administration, insofar as the employees would be less resistant to the change of work methods if they know the reason for such change and could see the opportunity to also have advantages with that (BUTLER, 1991). Taylor believed that if there was a true dependency between management and employees, such interdependency would naturally give rise to cooperation between both.

This reading of Taylorist principles highlights new concerns, in terms of management principles, such as the involvement or the importance given to communication as a motivation factor.

Halpern, Osofsky and Peskin (1989) highlight that the “gap” of the Taylorist system was not considering the group as a functional unit. If the group had been considered a work unit, it would had dragged to the Scientific Management concepts such as identify and meaning of the task associated to the group, an essential element in the explanation of satisfaction in the work in a perspective of total work process. According to Phelps, Parayitam and Olson (2007), the negligence of the human element attributed to Taylor results more from an interpretation given to his words than from his own perspective, insofar as Taylor valued the development of workers and expressed his concern for their wellbeing.

Also the issue of productivity, not emphasized by Taylor, has not lost the currentness. We can say that productivity still deserves more attention from the management of organizations, appealing to new concepts, either the increase of human relations or the quality of life at work.

In the attempt to better perceive the concepts of Taylor, some authors compare the “Scientific Management” with concepts such as Deming’s Total Quality Management (TQM) or Follett’s Situation Law (PHELPS, PARAYITAM, OLSON, 2007). Phelps, Parayitam and Olson

(2007) compare Taylor's and Deming's ideas, saying that Taylor was interested in assuring the efficiency in the production process, thus defending the use of the scientific study of work to determine the associated tasks, and to implement the standardization of processes, and that Deming referred to contents similar to Taylor's, using a different terminology when referring to the theory of the statistic control. While Taylor focuses on efficiency, Deming suggests that quality comes before efficiency, and clearly bets on a more systemic vision of the organization.

### 3 METHODOLOGY

The aim of this work is to analyze to which extent the job features, as identified by Hackman and Oldham (1980), are essential determinants of the levels of satisfaction of the contact employee in the call center.

Effectively, Hackman and Oldham (1980) developed a Model of Work Features that is accepted as conceptual reference to study problems related to motivation, satisfaction, and performance of employees. Studies confirm that the dimensions of the job features are represented in the five factors identified in the model and present in the Job Diagnostic Survey (JDS). This instrument, broadly tested, incurs on the determinants of satisfaction at work, highlighting the job features.

Within the scope of the research, in regard to the data collection instrument, the Job Diagnostic Survey (JDS) questionnaire by Hackman and Oldham (1980), translated into Portuguese and already used in several studies (ALMEIDA, FAISCA, JESUS, 2009), was employed.

The Portuguese version of the JDS has 30 questions, all of them answered in a Likert scale of 7 points (1 – strongly disagree; 2 – disagree; 3 – slightly disagree; 4 – with no opinion; 5 – slightly agree; 6 – agree; 7 – strongly agree).

The questionnaire is constituted of 5 groups of questions, each of them having between 4 and 10 questions. The first section is constituted of 5 questions regarding features present in the work. The second section is composed of 10 statements that describe the work. The third section is composed of 7 statements related to feelings in regard to the work. The fourth section is constituted of 4 questions regarding the level of satisfaction with certain aspects of the work. At last, the fifth section is composed of 4 statements regarding the feeling of others concerning the interviewee's work.

With this instrument, we intended to evaluate the perception of employees in regard to five specific features of the job: 1) variety of competences (work implies a variety of different activities); 2) identity of the task (work implies doing the job from the beginning through the end with a visible result); 3) meaning of the task (work has a substantial impact on the life or work of other people, either in the organizational context, or in the external environment); 4) autonomy (work allows to the individual a substantial freedom in scheduling the work and in determining the procedures to use); and 5) feedback (performing the activities at work result in getting direct and clear information about the effectiveness of one's performance).

The JDS Questionnaire also allows to identify personal and work results, i.e., internal Motivation of the work, general Satisfaction, and Satisfaction with the development.

In applying the questionnaire, and with the aim of ensuring the necessary representativeness, we identified the target-population, and defined the respective sample. Quantitative data collected were subject to a multivariate analysis and to a confirmatory factorial analysis.

#### 3.1 Sample

The sample is probabilistic, using the method of simple random sampling. Probabilistic

sampling are important, insofar they allow calculating the error associated to the statistics obtained from a sample, as well as extrapolating results with confidence to the population. Then, the issue of the calculation of the sample dimension is posed. In order to choose the sample dimension, we have to choose the acceptable error margin, and subsequently to base the sample dimension on such estimation (Rosner, 2006). We have assumed this to be a simple random sample and of a population dimension tending to the infinite, considering the high number of individuals (over one thousand in the case of the contact employees of the call center) under analysis. The most common value fixed for the confidence level is 95%. Since the statistical analysis to be performed utilizes chi-square tests, the formula will be:

$$n = (z^2(p)(1-p))/\text{error}^2$$

For a confidence level of 95%  $Z$  equals 1.96 (approximately 2); for an error of 5%,  $\text{error} = 0.05$ ;  $p$  is the proportion answering “yes” to the question, not knowing now how much is  $p$ , it shall be considered that  $p = 0.5$  (Rosner, 2006).

Therefore:  $n = 400$

When we consider  $n = 400$ , this shall be the number of questionnaires answered, for which we should take into consideration other sources of error, such as the non-answer rate. Thus, for a non-answer rate of 20%, the instrument will have to be applied to approximately 500 individuals.

A pretest was carried out, in which the questionnaire was applied to about 70 employees (January 2010). This led to the reformulation of some questions, in order to make them clearer.

A probabilistic sample coming from the population under study was used in the questionnaire: the population of Customer Relationship Assistants (ARC) that integrates the call center of residential care customer of the telecommunications company under study.

Once identified the recommended sample dimension, the Questionnaire of the Job Diagnostic Survey (JDS) was applied (a simple random sample of 484 Customer Relationship Assistants) in the contact center. The questionnaire was electronically accessible from March 22, 2010, to April 1, 2010, and was answered voluntarily, ensuring the confidentiality of answers given. All elements of the sample answered the questionnaire.

## 4 RESULTS

### 4.1 Descriptive analysis

With the application of the JDS, we intend to evaluate the perception of the contact employees of the call center in regard to the five specific features of the job, described in the model, and previously introduced: 1) variety of needed competencies; 2) identity of the task; 3) meaning of the task; 4) autonomy; and 5) feedback.

In the results analysis preparation, we built up a database from which we performed the descriptive statistical analysis, highlighting averages, standard deviation, medium and maximum values per question.

The statistic software used in our analysis was the Statistical Package for the Social Sciences (SPSS).

The psychometric properties of scales were evaluated based on the Cronbach' Alpha Coefficient. Subsequently, scores obtained in each dimension of the model were calculated.

All elements of the sample answered the questionnaire. Our sample is constituted of 484 valid questionnaires successfully returned.

As for the profile of respondents, we observe that most of the interviewees (67%) are women and (70%) students. This is a young workforce (71% are younger than 30 years old), and the most frequent educational level (45%) is High School completed. Nearly half of the interviewees (49%) are less than two years in the job.

The questionnaire structure showed to be consistent, as evidenced by the Cronbach' Alpha (see Table 1). Effectively, each of the identified dimensions has a good internal consistency, and all  $\alpha$  values are above 0.63.

**TABLE 1** – Features of the jds questionnaire

Section	No. of items	Cronbach' Alpha
Section 1	5	0.637
Section 2	10	0.825
Section 3	7	0.821
Section 4	4	0.876
Section 5	4	0.803

**Source:** The authors

Let's remember that sections 1 and 2 refer to the five job dimensions above identified. Sections 3 and 5 refer to the aggregated dimensions internal Motivation and general Satisfaction. Section 4 refers to the aggregate dimension Satisfaction with the development.

The five job dimensions (Variety of competences; Identity of the task; Meaning of the task; Autonomy; Feedback), as well as the three dimensions resulting from the work performed (internal Motivation of the work; general Satisfaction with the work; Satisfaction with the development), responded in a very favorable way in terms of reliability, and convergent and divergent validity (Table 2).

**TABLE 2** – Properties of the scales used in the jds questionnaire

Dimension	No. of items	Cronbach's Alpha	Intra-scale correlation	Inter-scale correlation
Variety of the task	3	0.742	0.510	0.213
Identity of the task	3	0.745	0.491	0.262
Meaning of the task	3	0.768	0.527	0.270
Autonomy	3	0.838	0.633	0.221
Feedback	3	0.792	0.567	0.260
Internal motivation of the work	6	0.753	0.367	0.243
General satisfaction	5	0.830	0.497	0.297
Satisfaction with the development	4	0.876	0.640	0.343

**Source:** The authors

As observed in Table 2, the values registered of the intra-scale correlations average, for all identified dimensions, are above the inter-scale correlations average, which corroborates the convergent validity and the divergent validity of the scales used.

#### 4.2 The perspective of contact employees

Before starting to characterize the job in regard to its five dimensions, we identified the

five items of the questionnaire getting the higher scores, as well as those with the lower scores, corresponding to the aspects that the employees regard as more and less realized in the job design, respectively.

To pick up from the thirty questions placed in the JDS questionnaire those that had the higher and lower scores allows us to have a first glimpse of the evaluation done by call center contact employees of the service job they perform.

**TABLE 3** – Evaluation of the job: strengths and weaknesses

	Questions	Average	Standard deviation
Values:	3.5 I feel good and happy when I find out I have performed this job well.	6.15	1.03
	3.1 I have a better opinion of myself when I perform this job well.	5.93	1.22
	3.3 I feel a huge personal satisfaction when I perform this job well.	5.87	1.27
	2.5 The way I perform my work can affect a large number of people.	5.40	1.35
	1.4 In general, how important is your work.	5.36	1.37
Values:	5.3 In this work, people rarely think of quitting.	3.17	1.38
	1.1 There is autonomy in your work.	3.28	1.42
	2.9 This work provides me with various opportunities to perform it with independence and freedom.	3.51	1.63
	5.2 In this work, most of people is very satisfied with their work.	3.63	1.43
	2.6 This work allows me to take initiatives and to make decisions.	3.71	1.60

**Source:** The authors

Table 3 shows that questions with higher scores are related to the satisfaction resulting from the performance of one's own work, while questions with lower scores are related to the freedom of initiative and external valuation of the job.

Effectively, of the five questions recording the higher scores, three are related to the satisfaction resulting from the performance of one's own job, which can be related to the intrinsic motivation associated to the contact job, expressed in statements such as "I feel good and happy when I find out I did my work well", "I have a better opinion of myself when I perform this work well", or "I feel a huge personal satisfaction when I perform this work well". The other two questions with positive answers by the contact employees regard to the meaning of the job, i.e., the impact the job has on the life and work of others, or the importance the job has for the organization. This meaning given to the job is explicit in indicators such as "The way I perform my work can affect a large number of people" or "In general, how important is your work".

Now highlighting the five questions that recorded lower scores, we see that three of them are related to the autonomy associated to the contact job, expressed in statements such as "There is autonomy in your work", "This work provides me various opportunities to perform it with independence and freedom", "This work

allows me to take initiatives and make decisions", i.e., for the contact employees of the call center autonomy is a dimension regarded as little realized in the job they perform. On the other hand, we recorded another two questions also with low scores, and which are related to the external perception of the job. They are "In this work, people rarely think of quitting" and "In this work, most of people is very satisfied with their work".

It is interesting to see that simultaneously the contact job is regarded in a positive way, in terms of scores, in regard to its intrinsic satisfaction component evaluated by the employees themselves, and yet it is negatively regarded in the component of the job perception by others. If, on one hand, the contact employee him/herself evaluates the job as generating intrinsic and motivating satisfaction, on the other hand, he/she considers that the others, the contact employees in which he/she projects him/herself, opposed to him/herself, are not very happy with their work, and might even think of quitting the job. This duality can be related to the distance between the way the job is perceived by who performs it (self-perception) and the way it is perceived by others (heteroperception).

We will now present the results referred to the five job dimensions presented in the model, taking into consideration the results recorded for each question, and then aggregating them as defined in the model by Hackman and Oldham

(1980). Thus, we determined the values assigned to each of the defined dimensions. Results regarding the five job features are shown in Table 4.

**TABLE 4** – Dimensions of the job (average values)

Job features	No. of items	Average	Standard deviation
Variety of the task	3	4.8313	1.2176
Identity of the task	3	4.4242	1.1354
Meaning of the task	3	5.3423	1.1339
Autonomy	3	3.5034	1.3497
Feedback	3	4.8567	1.1050

**Source:** The authors

Unsurprisingly, the dimension with the smallest score is autonomy, followed by identify of the task. On the other hand, the dimension with the highest score is the meaning of the task, followed by feedback and variety of the task.

The contact employees of the call center point out, amongst the job features, the “Meaning of the task” as being the most robust dimension. Then, the contact employees of the call center point out the feedback dimension as being the most concretized in the contact job. This dimension regards the fact that the contact employee has clear and precise information about his/her performance. This dimension might be related to the feedback given to the employee by supervisors, by the monitoring carried out during the service, or even by the access the contact employee him/herself has to the result of the actions in response to the customer’s questions. Considering that the job is subject to control, it is understandable that this is a very quoted dimension.

The contact employee points out variety as the third most robust dimension of the job, regarding the fact that the job performance requires different competences and skills.

On the other hand, the contact employees of the call center consider that the least concretized dimension is autonomy. Autonomy is related to

the degree of freedom with which the work is performed, and is associated to the possibility the contact employee has to define how he/she performs and schedules his/her work. Therefore, it is an important dimension in the analysis of the contact job, especially because the customer values it.

Then, we show the results associated to three aggregated dimensions (Table 5): General satisfaction, Satisfaction with the development, and Internal motivation.

Internal motivation of the work (refers to the intrinsic satisfaction component resulting from the job performance itself) is related to the personal satisfaction that each one associates to the work performed. The quality of the performance itself can generate a high motivation.

The general satisfaction dimension, in general, validates to which extent people are satisfied to perform this job, or, to the contrary, they think of quitting the job.

The satisfaction with the development dimension is related to the personal growth the job performance can cause on those performing it. The possibility of learning and developing is, in such case, associated to the possibility of making decisions, of doing new things, and also to the feeling of personal accomplishment associated to the job.

**TABLE 5** – Satisfaction with the work (average values)

Personal and work results	No. of items	Average	Standard deviation
Internal motivation of the work	6	5.4263	0.8898
General satisfaction	5	4.3045	1.1350
Satisfaction with the development	4	4.4644	1.2778

**Source:** The authors

As observed, the dimension with higher score is internal Motivation of the work, followed

by Satisfaction with the development, and the one with the lower score is the general Satisfaction. We point out that the contact employee feels motivated for the fact of performing his/her activities of the job well.

The Satisfaction with development construct is also positively highlighted by the contact employees, although with a lower score.

The General satisfaction construct add different components related to the self-perception of satisfaction inherent to the job, the heteroperception of satisfaction, and also issues related to the turnover, being the one with the lowest score given by the contact employees of the call center. This result might be related to the precariousness associated to the job in contract terms, which makes people search for more stable alternatives, manifesting this intention when asked.

In an attempt to relate the general Satisfaction with the five job features, and with the added dimensions identified in the model, we carried out a linear regression between the general Satisfaction, regarded by us as a dependent variable, the five job features variables, and also the two added variables (internal Motivation and Satisfaction with the development). In the JDS,

the five job features, as well as the three added dimensions, are independent constructs and refer to different items. In this regard, we are interested in identifying the potential relationship between general Satisfaction and the five model dimension, on one side, but also the relationship between general Satisfaction and internal Motivation and the Satisfaction with development, on the other side (Tables 6 and 7).

**TABLE 6** – Explicatory power of the model

Model	R	Square R	Adjusted square R	Student Error Estimation
1	0.770 <sup>a</sup>	0.593	0.588	0.72894

**Source:** The authors

<sup>a</sup> Predictors: (Constant), Satisfaction with the development, Variety of Skill, Feedback, Autonomy, internal Motivation, Meaning of the task, Identity of the task

The variables included in the model are responsible for the explanation of around 60% of the variability, which can be regarded as very reasonable.

**TABLE 7** – Model estimation – coefficients

		COEFFICIENTS <sup>b</sup>				
Model B		Non-standardized coefficients		Standardized coefficients	t	Significance
		Student Error	Beta			
1	(Constant)	-0.051	0.233		-0.219	0.826
	Variety of Skill	-0.027	0.031	-0.029	-0.867	0.386
	Identity of the task	0.077	0.037	0.077	2.074	0.039
	Meaning of the task	0.013	0.037	0.013	0.354	0.724
	Autonomy	-0.020	0.030	-0.024	-0.678	0.498
	Feedback	0.058	0.037	0.057	1.564	0.119
	Internal motivation	0.297	0.047	0.233	6.343	0.000
	Satisfaction with the development	0.505	0.035	0.568	14.271	0.000

**Source:** The authors

<sup>b</sup> Dependent Variable: General satisfaction



Considering the results obtained in Table 7, within the job dimensions, only the identity of the task dimension can be regarded as determinant of the General Satisfaction. The remaining four dimensions considered in the model, Variety of competences, Meaning of the task, Autonomy and Feedback do not appear as determinants of the general satisfaction. On the contrary, the aggregated constructs – internal Motivation and Satisfaction with the development – appear as determinants of the general Satisfaction.

In brief, we can say that the General satisfaction is not so much explained by the five dimensions associated to the job, but is rather explained by the features of internal development, learning and motivation associated to the job itself.

## 5 CONCLUSIONS AND IMPLICATIONS

In the context of call centers services, the service job is determined *a priori*, without the participation of customers in the service process design. We are thus before a mass service, in which the relation is created between the customer and the organization, rather than a single relation between individuals.

It is considered that the differentiation of companies and their competitive edge is determined by the effective combination of the technology progress and the low cost work resource, although still capable of creating in the customer the idea of a competent and customized service. We believe that the job design conditions the employee's satisfaction, and by influencing the job performance is an element of appraisal by the customer. Since the employees are the mediators of the relation between the company and the customer, it is crucial to perceive the level of satisfaction the contact employees have in regard to the function they perform, since the satisfaction of employees is frequently an important precedent of the customers' satisfaction (GIL, BERENGUER, CERVERA, 2008; COOK et al., 2002), the ultimate goal of the organization.

The aim of this research is to analyze to which extent the job features, as identified by Hackman and Oldham (1980), are essential determinants of the levels of satisfaction of the contact employee in the call center. From this knowledge, it is possible to redefine the job contents and to outline a description that inculcates in the contact employees the desired behaviors.

According to this research, issues with higher scores given by the contact employees of the call center are related to the satisfaction resulting from the performance of their own work, while the issues with lower scores are related to the freedom of initiative, autonomy, and external valuation of the job. Therefore, the job can be enhanced by improving the autonomy and initiative that are associated to it.

Considering the General satisfaction with the service job, the intrinsic potential of satisfaction that the job has for those performing it, as well as the development potential, is recognized by the contact employees. More important than making the job more robust in its less consistent dimensions (according to the JDS model) is to appraise and increment the intrinsic component of satisfaction that the job itself ensures. The General satisfaction is not so much explained by the five dimensions associated to the job, but is rather explained by the features of internal development, learning and motivation associated to the job itself. This job incorporates the motivation factors that should be valued and potentiated through individual development plans.

As already mentioned, the satisfaction with the job is a factor increasingly valued in the organization sphere. Gil, Berenguer and Cervera (2008) indicate that the level of satisfaction with the job of employees comes up as the moderator of the relation between the customer's perception and the service value.

Thus, the fact that the service job is highlighted by the contact employees is very

relevant for the organization, considering the impact it can have on the customers. Likewise, the concern transmitted in regard to the freedom of initiative and autonomy associated to the job should deserve attention from the management, considering the impact, this time negative, they can have.

This research contributes to evaluate the model by Hackman and Oldham in the context of call centers, in which the job is developed in a technologically controlled environment. Based on its application, it was possible to identify a set of recommendations to better concretize the job performed by the contact employees. In regard to future researches, it would be interesting to relate the employees' satisfaction with the customers' satisfaction.

In this regard, the perspective of total quality seems very opportune to us, constituting a philosophy that values employees' satisfaction along with customers' satisfaction. The total quality management provides the job enhancement with great importance, which can be attained by the new competences needed to perform the employee's task. The employee assumes a leading role in all processes, ensuring the continuous improvement that is intended to attain. The features of internal development, learning and motivation associated to the job itself potentiate the total quality management.

Thus, despite the quality management recuperates important features of the mechanistic model, mainly when valuing the statistic control of organizational activities, the attention to the processes and the organizational efficiency, it also combine them with fundamental elements of the organic model when highlighting the importance of comprehensive objectives, of role change, of continuous improvement, and of permanent learning. It is easy to understand that, as the result of the moment when it appeared, by devaluing those learning and change dimensions in the study of the job, the model by Hackman and Oldham has some limitations that can be addressed in future works.

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