



EMPLOYEES AND CUSTOMERS IN CALL CENTRES: CONFIRMATORY AND EXPLORATORY STUDY

Doriana Chicu

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Employees and customers in call centres: confirmatory and exploratory study

DOCTORAL DISSERTATION

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FAIG CONSTAR que aquest treball, titulat "Employees and customers in call centres: confirmatory and exploratory study", que presenta En Doriana Chicu per a l'obtenció del títol de Doctor, ha estat realitzat sota la meva direcció al Departament de Gestió d'Empreses d'aquesta universitat.

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ABSTRACT

Purpose: This thesis investigates the explanatory power of the Service-Profit Chain (SPC) model in a context that differs from its original conception. We do so by considering whether the main relationships it proposes apply in the context of call centre services, characterized by remote services and cost cutting business models. We propose two hypothesis and conduct two fully-fledged studies in order to answer the main research question: Does the service profit chain apply in the call centre sector?

Design and methodology: Data was gathered from the Global Call Centre Project. We carried out two studies. The first one is a confirmatory study employing EQS software, using an international sample of call centres (n=937). In the second study we use a Spanish sample (n=109) and carry out an exploratory study employing PLS Graph.

Findings: Findings reveal that the SPC model behaves somewhat differently in call centres. Although there is general support for most of the links in the model, the results indicate that customer satisfaction in the call centre industry is a separate outcome, rather than a precursor to company performance. In addition we found a way to measure the individual level construct of employee satisfaction with organizational available data. We also discovered some discrepancies in the relationship between employee satisfaction and employee productivity.

Research limitations: As is common in most research of this type, the present study is based on cross sectional data. Also, this is an organizational level study. Maybe future research should consider testing this model by collecting the data at different levels, and from different informants.

Practical implications: Managers would be well advised to keep in mind that even minimum investments in human capital can make a difference in customer satisfaction and company results. The investment in training is of particular importance as it improves employee productivity and performance.

Originality/Value: This is the first study to examine the Service Profit Chain in non-traditional, non-face-to-face services. It demonstrates that the basic logic of the model is upheld, thus providing evidence that the boundaries of the SPC model may be further pushed in line with the peculiarities of the evolving service economy.

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CHAPTER 1

INTRODUCTION

- 1.1. CHOICE AND JUSTIFICATION OF THE TOPIC
- 1.2. FRAMING THE THESIS CONCEPTUALLY AND EMPIRICALLY
- 1.3. STRUCTURE OF THE THESIS
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CHAPTER 1. INTRODUCTION

1.1. CHOICE AND JUSTIFICATION OF THE TOPIC

The original topic of this thesis was to explore customer satisfaction in the call centre industry. The reason is that, nowadays, the success of a company may depend on their call centre operations, as it is the main place of communication between the consumer and the provider (Aksin, Armony, & Mehrotra, 2007; Anton, 1997; Cheong, Kim, & So, 2008). But it seems that customer satisfaction is not traditionally associated with call centre interactions or, at least, academic attention has not been devoted to this topic. Although call centres have been designed as a customer relationship management tool (CRM) in order to assist and support customers, it seems that customer satisfaction may not be an essential issue in this context. In fact, there is evidence that customers are less satisfied with call centre service operations than they are with the more traditional brick n' mortar services or face to face encounters (Bennington, Cummane, & Conn, 2000; Makarem, 2009). Moreover, the call centre industry, based on voice-to-voice encounter, seems to be operating under a prevailing premise of cost-cutting, where the role of customer satisfaction is uncertain.

In order to bring to the surface the main issues related to customer satisfaction in call centres, we reviewed the existent literature on this topic and centred on identifying the antecedents and consequences of satisfaction in this specific sector.

As a result, we discovered that it seems that customer satisfaction is not among the main aims of research in the context of call centres, both in terms of number of studies and also in terms of prominence of this construct within the existing studies. This is a significant point that should be highlighted by the marketing and consumer research discipline. During some decades, customer satisfaction was presented as a central issue by consumer studies, as in the traditional service encounter the main aim of a company is to satisfy customer. However, in call centres the reality seems to be different. In fact, the majority of research addresses different concepts around customer satisfaction, but does not tend to consider immediate causes or effects of this construct.

Given this state of research, the focus of this study turned to considering a larger set of dimensions surrounding customer satisfaction, by considering a whole set of proximal and distal relationship that interact with each other, such as managerial strategies, HR practices, performance and productivity indicators. Thus, we moved from examining immediate relationships (antecedents and consequences) with customer satisfaction, to look at whole processes of interactions that include a whole chain of events. We completed the literature search by revising models that consider whole chains of events explaining and predicting customer satisfaction and business performance by and large, such as lean technique or the balanced scorecard. We also reviewed studies that had applied these chain models to the call centre sector. Among these, we decided to test the applicability of the service profit chain model in the call centre industry. We choose this

model because call centres have particular characteristics that may push the limits and assumptions of the service-profit chain. These are detailed in chapter 3.

In line with this focus of interest, we posed the following research question: *Does the service-profit chain apply to call centre industry?*

1.2. FRAMING THE THESIS CONCEPTUALLY AND EMPIRICALLY

From a disciplinary point of view, this thesis lies at the interface between Human Resource Management (HRM) and Marketing. Originally we addressed the literature of Services Marketing in order to find out the main issues related to customer satisfaction, but then, when we tried to identify the determinants of customer satisfaction, we mainly identified actions taken either by the company in general (such as managerial strategies or HR practices), or by employees in particular, especially in relation with their work outcomes (employee satisfaction, productivity or performance). In this sense, we broadened the horizons of our primary body of knowledge, and entered the literature related to HR and Management.

In addition, as we were considering the service encounter, where the interaction involves employee, customer and in the case of call centres, also technology, we also took into account the literature on service technology. It is noteworthy to mention that the call centre offers a non-traditional service encounter that operates through technology, which is in constant development and requires specific knowledge to deal with. Therefore, studying and understanding the role of customer satisfaction in this

specific encounter is a complex process. Customer satisfaction has been studied extensively in traditional service encounters, but the assumptions that are made for those service encounter (with a core focus on the person-to-person, face-to-face exchange) cannot fully be applied to call centres, as the service is offered remotely and it involves a three-way interaction between customer, agent and technology.

From an empirical point of view, we framed this study in both, international and Spanish representative studies of call centre management. As we stated in the previous section, we were looking at a broad range of cause-effect relationships. Therefore it is difficult to locate data sources that capture all of these aspects from the whole business process. The privilege of being part of the Spanish National Research Group involved in the Global Call Centre Project allowed us to access the largest database of Call Centre Management in Spain, which encompasses a wide range of variables from different managerial process. However, at the moment that this study was started, the data had been already collected and the survey had not been designed specifically to test the service-profit chain. Nevertheless, as we explain in chapter four, the data set encompasses variables from different part of the chain, such as HR practices, employees, customer and financial performance and allows us to consider and to test the main elements of the model. As we explain throughout the thesis, the Spanish data was not sufficient because of the small sample size, and we also got permission from the whole network to use the relevant variables from the international dataset from the Global Project of Call Centre Management (Holman, Batt, & Holtgrewe, 2007).

1.3. STRUCTURE OF THE THESIS

In order to facilitate the reading of this thesis, we are now going to present the structure of this manuscript. It is important to highlight that, in organising the material for this study, we have aimed to clarify where each section is located, but more importantly, to reflect the research and learning process that has occurred in the life cycle of this PhD, including the different decisions and choices taken at various key turning points. This is particularly spelled out in the central Chapter 3, which links the conceptual with the empirical part of this thesis and details the decision-making process that occurred in order to proceed with the study.

The thesis consists of six chapters, each of which with specific sections and also references section. This is the first chapter where we have introduced the topic of the thesis, the overall research question (*RQ*) and described the thesis structure.

Chapter two: This chapter is split up in four sections. The first section includes a short literature review on the concept of customer satisfaction in general. The second part addresses the literature review related to call centres as an industry within the service sector and their general characteristics. The literature review related to customer satisfaction in the context of the call centre industry is presented in section three. The conclusion of the literature review reveals that customer satisfaction in the context of call centres is connected to many different groups of factors, such as managerial strategies, HR practices, employees' behavioural outcomes and performance. This leads us to consider, in section four, the main managerial models that predict performance in

companies, and whether or not these models have been previously considered in the context of call centre.

Chapter three: This chapter contains three sections and links the conceptual with the empirical part of this thesis. It details the decision-making process that occurred in order to proceed with the study. Section one states the research question (RQ) about the applicability of the service profit chain model in the call centre industry, and it highlights the contributions of the study. In section two, we develop the specific links within the service profit chain model that will later be tested in the context of call centres. Finally, in section three we present the first (unsuccessful) attempt of testing the service-profit chain model in call centres, from which derive three explanations or hypotheses for the thesis (*H1, H2, H3*). In order to confirm H3, we would previously need to reject H1 and H2, which represent the subject matter of the next two chapters.

Chapter four: This chapter aims to contrast H1 and test the model by employing an international dataset. There are five sections. The first two sections explain how the data was collected and what metrics were employed in order to measure the items. Section three deals with data analysis and presents the structural equation modelling (SEM) as an analytical procedure employed in order to estimate the measurement and structural model. The fourth section presents the results of the study by describing the measurement and the structural model. And the last section discusses the main conclusions of this study.

Chapter five: This chapter contrasts H2 and tests the model by employing a smaller Spanish dataset that contained more variables. It is similar to chapter four, but embraces only four sections: analytical procedure, measurement, results and conclusion. Note that in this chapter we do not explain the data collection as it has been detailed in chapter four.

Chapter six: This is the last chapter of the thesis and includes three sections. In the first section, we present a brief summary of the research carried out (including outputs from literature review, study 1 and study 2). The second section presents the main overall conclusions, as well as the contributions of the whole research project, by emphasizing the main similarities and differences between the two studies. The chapter closes with a summary of the main limitations of our study and some suggestions for future research, mainly related to the field of the call centre industry and to further studies of service-profit chain.

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CHAPTER 2

LITERATURE REVIEW

2.0. INTRODUCTION

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CHAPTER 2. LITERATURE REVIEW

2.0. INTRODUCTION

As stated in the previous chapter, the purpose of this study is to identify the determinants and consequences of customer satisfaction in the call centre industry. Therefore, the main focus is on customer satisfaction, which is examined from two perspectives. On the one hand, the study will focus on the determinants of customer satisfaction in the voice-to-voice encounter. More specifically, we will detect and classify the factors that determine or lead to customer satisfaction. On the other hand, we will identify the outcomes of customer satisfaction, in terms of customer behaviour as well as company performance.

In order to further deepen the study about customer satisfaction in the call centre industry, we will employ a deductive technique, from general to specific. Firstly, we will examine the definition of customer satisfaction and highlight what the relevant literature displays on this topic. Secondly, analysing the extant literature about the call centre industry, we will construct a framework that includes the factors that directly and indirectly affect customer satisfaction in this specific sector. Next, we review the literature on different managerial models that employ the customer satisfaction concept,

and we will finally focus our attention on the Service-profit chain model, for which there has been no previous attempts to apply to the call centre sector.

2.1. CUSTOMER SATISFACTION

Even though it is beyond the scope of this study to carry out an extensive analysis on the wider literature on customer satisfaction, as this has been done by numerous studies (Churchill Jr. & Surprenant, 1982; Day, 1984; Giese & Cote, 2000; Howard & Sheth, 1969; Mano & Oliver, 1993; Mittal, Kumar, & Tsiros, 1999; R. L. Oliver, 1980; Peterson & Wilson, 1992; Westbrook, 1980; Yi, 1990), in this chapter we would like to highlight some of the limitations that this literature presents, in particular, those issues that we need to take into account when proceeding with the study of customer satisfaction in the Call centre industry. These limitations are now discussed:

2.1.1. Different disciplinary and conceptual departure points

There is a significant literature on the concept of customer satisfaction. However, there are many discrepancies in terms of how the concept is defined and operationalized (Giese & Cote, 2000). The concept of customer satisfaction has been studied from a wide range of perspectives, including cognitive, conative and affective (Churchill Jr. & Surprenant, 1982; Giese & Cote, 2000; Howard & Sheth, 1969; Swan & Trawick, 1981; Westbrook & Oliver, 1991; Westbrook & Reilly, 1983; Westbrook, 1980). The cognitive viewpoint refers to the rational mental process that is carried out during the

performance to evaluate if the reward was adequate or inadequate (Howard & Sheth, 1969; Tse & Wilton, 1988). Meanwhile, the conative and affective viewpoints are both related to emotional responses. For example, a conative response is represented by the customer behaviour or triggered by natural impulses or tendencies, such as customers' repeat purchase intention (Westbrook & Oliver, 1991). Affective responses are represented by the experience of feeling, considered an emotional outcome (Mano & Oliver, 1993; Westbrook & Reilly, 1983). In addition, there are authors that employ a mixed point of view of customer satisfaction, involving both cognitive and emotional dimensions (Churchill Jr. & Surprenant, 1982; Westbrook, 1980).

Furthermore, several researchers examine customer satisfaction including variables such as expectation (Churchill Jr. & Surprenant, 1982; R. L. Oliver, 1980, 1981; Westbrook & Reilly, 1983), disconfirmation (R. Oliver & DeSarbo, 1989; R. L. Oliver, 1981; Swan & Martin, 1981), performance (Churchill Jr. & Surprenant, 1982; Tse & Wilton, 1988), complaint behaviour (Bearden & Teel, 1983; Bitner, 1990), repeat purchase behaviour (Bearden & Teel, 1983; R. L. Oliver, 1980; Sharma, Mathur, & Dhawan, 2009), word-of-mouth (Day & Bodur, 1978; Richins, 1983). Some of these could, in fact, be considered antecedents, consequences or simply correlates of customer satisfaction. There are also some authors that attempt to link customer satisfaction to different disciplines or theories. For example, (Lian Chan & Baum, 2007) postulated that customer satisfaction is parallel to job satisfaction, and applied Herzberg Dual Factor Theory for measuring consumer satisfaction via satisfiers and dissatisfiers.

Hence, the lack of a general definition and common viewpoint for customer satisfaction has negative implications on satisfaction research as different studies use different metrics that lead to difficulties in interpretation and comparison of results (Giese & Cote, 2000; Peterson & Wilson, 1992; Yi, 1990).

In Table 2.1 below we list and examine some definitions that have been long developed by consumer researchers, and to facilitate an examination of similarities and differences between them.

To conclude, although definitions differ from each other, they can be classified in terms of stressing customer satisfaction either as an outcome-oriented approach or a process-oriented approach (Yi, 1990). In this vein, the outcome-oriented approach refers to definitions that have been built based on a summative state or the evaluation's consequences, such as repeat purchase intention or customer behaviour (Westbrook & Oliver, 1991; Westbrook & Reilly, 1983; Westbrook, 1980). It involves the final consumption's evaluation in terms of intrinsic or extrinsic perceived compensation, as well as the consumer's response to consumption in terms of future business or word-of-mouth. Instead, the process-oriented approach focuses on satisfaction definitions built on discrepancies between actual performance and expected performance at different stages of the purchase process (Day, 1984; Hunt & Day, 1977; R. L. Oliver, 1980). In this case, consumers carry out a progressive evaluation at different points in time: during the decision or choice stage, by contrasting if the previous expectations have been met; during the consumption stage, by considering if the consumption experience is actually as it was predicted to be (Bearden & Teel, 1983; Day, 1984; Hunt & Day,

1977); or post consumption stage, by allowing for the level of performance perceived after the consumption (Mano & Oliver, 1993; Tse & Wilton, 1988).

Table 2.1. Customer satisfaction definitions

| Author | Definition |
|------------------------------------|--|
| (Howard & Sheth, 1969) | Satisfaction is “the buyer ’s cognitive state of being appropriately or inadequately compensated for the sacrifices he has undertaken”. |
| (Hunt & Day, 1977) | “Satisfaction is a kind of stepping away from an experience and evaluating it, the evaluation rendered that the experience was at least as good as it was supposed to be” or “consumer satisfaction with a product refers to the favourability of the individual’s subjective evaluation of the various outcomes and experiences associated with using or consuming it”. |
| (Pfaff, 1977) | “Customer satisfaction could be described by both cognitive and affective models”. |
| (Westbrook, 1980) | “Product satisfaction is partly a function of broader affective influences within the consumer, in addition to purchase specific cognitive factors, such as extent to which product outcomes meet or exceed expectation; however it depends on product category”. |
| (R. L. Oliver, 1980) | “Satisfaction is a mediator between expectation and post-attitude”. |
| (Churchill Jr. & Surprenant, 1982) | “Satisfaction conceptually is an outcome of purchase and use resulting from the buyer comparison of the rewards and costs of the purchase in relation to the anticipated consequences, but operationally, satisfaction is |

| | |
|-----------------------------|---|
| | similar to attitude in that it can be assessed as the sum of the satisfaction with the various attributes of the product service”. |
| (Day, 1984) | Satisfaction is “the evaluative response to the current consumption event, the consumer’s response in a particular consumption experience to the evaluation of the perceived discrepancy between prior expectation and the actual performance of the product perceived after its acquisition”. |
| (Westbrook & Reilly, 1983) | Satisfaction is “an emotional response to the experience provided by and associated with particular products or services purchase; is pleasurable emotional state resulting from the appraisal of a product, service, and retail outlet or consumer action as leading to or achieving one’s value”. |
| (Yi, 1990) | “Consumer satisfaction is generally defined as the consumer ’s response to the evaluation of the perceived discrepancy between some comparison standards (expectation) and the perceived performance of the product”. |
| (Mano & Oliver, 1993) | “Satisfaction is represented by a singular satisfaction indicator and is shown as affected by both evaluation and affect”. |
| (Mittal et al., 1999) | “Satisfaction change over time and is determined by attribute level performance”. |
| (Diaz & Ruíz, 2002) (p.118) | “Satisfaction is “an affective reaction to an incident during the dispensing of a service”. |

Both of these approaches have two common elements: consumer expectation and time or duration of the evaluation. Regarding consumer expectation, is important to note that

customer's expectation level is created by the companies themselves (LaTour & Peat, 1979).

So, how do companies influence customer expectation's level? It is known that, nowadays, many companies are operating in a very competitive environment, where market supply exceeds customer demand. In this context, most of the companies, on their way to leadership, try to keep up with market evolution. Thus, the first step usually consists in identifying what the customer's expectations are, and then, try to beat the competition by exceeding these expectations. In other words, companies are geared to invest continuously in order to improve performance, which in turn leads to continuous increase of consumer's expectation. As some authors suggest, the higher the product and service performance provided by companies, the higher the customer expectation will be (Rodriguez, 2008).

Concerning the different phases or moments at which the assessment and satisfaction is decided, this evaluation may occur because of differences between assessed items, as not all goods and services can be evaluated at the same stage. For example, in the case of a product evaluation, such as clothes, consumers are able to assess it during the choice stage as well as post consumption stage. However, in the case of books, for example, consumers will not be able to anticipate the evaluation until the reading is complete. This circumstance necessarily leads to post consumption evaluation. If we consider foodstuff, then maybe the best moment to assess food is during consumption. As a result, it seems that the consumer satisfaction concept is like a gear lever, which can be tailored according to the specific service characteristics, consumption process

and assessment moment. In this sense, Yi, (1990) classifies consumer satisfaction definitions in terms of level of specificity, such as satisfaction with a product, with a consumption experience, with an attribute, with the sales person or with a store.

Therefore, as many elements related to customer satisfaction are constantly varying, looking for a general definition of customer satisfaction may not be the best option. In this sense, (Giese & Cote, 2000) (pag.15) claimed that “instead of presenting a general definition of consumer satisfaction, we must delineate specific components of it and develop appropriate measurements, by differentiating between products and services, and also among different service industries”. Indeed, Giese & Cote, (2000) concludes that all definitions have similarities by sharing three essential common components that should be considered by researchers:

- Satisfaction focus around product choice, purchase and consumption: depending on the item to be assessed (product, service, sales person), the researcher should decide if the satisfaction should be focused on an attribute or on a specific benefit. In this sense, the author suggests to “develop a battery of satisfaction survey instruments tailored to different types of customer and research questions”.
- Time of determination which varies by situation, but is limited in duration: as noted above, depending on the item to be assessed, the researcher may consider two elements related to time: firstly, what is the expected duration of the summary response, as whether the existence of satisfaction is temporal; secondly, it is important to identify at which stage the response should occur (choice stage, consumption or after consumption stage).

- Summary affective response that varies in intensity: researchers may take into account that the affective response, as well as the level of intensity, could vary according to the item to be assessed. For example, the affective descriptors that consumers may employ to assess a bank service would not be feasible to assess a restaurant, and the level of intensity will also vary.

2.1.2. Different approaches to measurement

Most studies until now, when attempting to measure customer satisfaction, have employed variables that fit neatly into the selected definitional framework. However in most cases they choose measures that belong to different concepts and even to different disciplinary traditions, such as human resource, psychology, marketing, technology, management (Elliott & Serna, 2005; Garcia, Archer, Ghiabi, & Moradi, 2012; Grigoroudis, Siskos, & Saurais, 2000; Lian Chan & Baum, 2007; Maddern, Maull, Smart, & Baker, 2007; Pantouvakis, 2010). For example, (Lian Chan & Baum, 2007) sustain that customer satisfaction is analogous to job satisfaction. Accordingly, they employ variables such as satisfiers and dissatisfiers from the Herzberg's Theory (Herzberg, Mausner, & Snyderman, 1959), in order to measure customer satisfaction. The same idea was adopted by earlier researchers when developing the Consumer Satisfaction Index (Pfaff, 1977).

Another point to take into account is that, particularly in the service industry, the literature suggests that different authors' measure customer satisfaction using different service quality dimensions (Keiningham, Aksoy, Tor, Cooil, & Wahren, 2006;

Pantouvakis, 2010). However, it seems that this is not a reliable way of measuring customer satisfaction, because consumers may be satisfied with a specific service or one of the company's business units, but at the same time, they may feel that the company as a whole does not provide a quality product or service (Bennington, Cummane, & Conn, 2000). For example, in the hospitality context, a consumer could be satisfied with the service provided by the receptionist, or the waiter, but not satisfied with the accommodation in general. Thus in this case, if we employ for example SERVQUAL metrics in order to measure customer satisfaction, we will get a high score, but the evaluation will not be consistent. Therefore it is important to differentiate between service quality and customer satisfaction and use appropriate measures for each of these variables.

Additionally, it should be noted that in general consumer satisfaction depends on the quality of services or products (Bitner, Booms, & Tetreault, 1990; Bitner, 1990). Maybe for this reason, in many cases, the customer satisfaction research is almost overlapping with quality metrics. In this sense, if we consider the emotional meaning of customer satisfaction, we can differentiate quite easily between customer satisfaction and service quality, but if we take a more cognitive approach then customer satisfaction is based on a comparison between expectation and reality of service quality (Jaiswal, 2008).

As consequence of the above mentioned, we will keep these two constructs as separate, considering that service quality is a different parameter to customer satisfaction, being in fact an antecedent of the latter.

Regarding the methods of measurement, it seems that customer satisfaction is usually measured by direct methods, such as surveys, which are characterized as a straightforward, clear and easily interpreted method (Yi, 1990). Since customer satisfaction is an attitude metric, it is usually measured by using Likert scales (Westie, 1953), based on a single item scale (Swan & Martin, 1981; Westbrook, 1980). Nevertheless, other indirect methods are also utilized to measure consumer satisfaction, such as repeat purchase and consumer behavioural intentions, being in fact considered complementary methods (Peterson & Wilson, 1992; Yi, 1990). There are many other dimensions or concepts such as consumer reaction, emotion and annoyance, which may be indirectly related to satisfaction. However, these are beyond the scope of the present study.

2.1.3. Satisfaction versus Dissatisfaction

Regarding customer dissatisfaction, some authors consider that customer dissatisfaction is the opposite of satisfaction (Bitner et al., 1990; Giese & Cote, 2000; Mittal et al., 1999). However, others see these concepts as two different dimensions (Herzberg et al., 1959; Lian Chan & Baum, 2007; Mano & Oliver, 1993; Pfaff, 1977; Yi, 1990).

The literature suggests that dissatisfaction in the service industry may come about as an independent dimension because of different problems that arise during the encounter, mainly related to the service outcome, service process, or location (Levesque & McDougall, 1996). The components of these variables are in part equivalent to some SERVQUAL metrics. Bitner et al., (1990) used the critical incident technique (CTI) in

order to test both customer satisfaction and dissatisfaction. The CTI metrics employed in the study were similar to SERVQUAL metrics. There are also studies that try to identify the determinants of dissatisfaction in different service sectors, such as car repairs, financial services, rental and public transportation (Day & Bodur, 1978). However most of the metrics could be integrated into a SERVQUAL model or Key Performance Indicators. For example “the service was provided in a careless, unprofessional manner” could be considered as “responsiveness” from SERVQUAL, which in fact was the greatest cause of dissatisfaction in all tested services (Day & Bodur, 1978).

Taking into account the objective of this part of the study in terms of defining the determinants and consequences of customer satisfaction and dissatisfaction in the call centre industry, we will now further examine how different authors determine and measure customer satisfaction and dissatisfaction in this specific sector.

First of all, we separate the customer satisfaction concept from service quality or other antecedents, as well as from other consequences, such as repeat purchase or word-of-mouth. In this sense, we look for studies that have addressed in some way the link between these antecedents and consequences and customer satisfaction. Secondly, following (Bitner et al., 1990; Mittal et al., 1999), we will consider that customer satisfaction is the opposite of dissatisfaction, and accordingly, the antecedents and consequences will be grouped in positive and negative dimensions. Finally, we will measure the customer satisfaction by direct methods based on a Likert scale.

2.2. THE CALL CENTRE INDUSTRY

As the purpose of this study is to identify the determinants and the consequences of customer satisfaction in the call centre industry, in this section we examine the literature on call centre management. Firstly, it is important to note that the existing literature addresses the concept of call centre from different points of view (Russell, 2008). Some authors study this concept as an emergent phenomenon rather than a theoretical construct, mostly focusing on call centre classification, business models or managerial control (Russell, 2008). Meanwhile, others address the call centre as an object or analytical unit, using it as a context or unit of observation where to test some theoretical concepts (Ellway, 2014; Fernie & Metcalfe, 1998; Piercy & Rich, 2009a, 2009b; Russell, 2008).

It is noteworthy to underline that the call centre has raised interest among researchers and business professionals because of two main reasons: since its advent, it has become the main contact channel between companies and customers, and at the same time it has become a massive employment generator (Aksin, Armony, & Mehrotra, 2007; Russell, 2008). Indeed, as Calaghan & Thompson, (2002) state, service encounters on the telephone account for an increasing and significant portion of companies' interactions with their customers. In fact, it is estimated that over 70% of all customer contact takes place through Call centres (Feinberg A., Leigh, Rajesh, & IkSuk, 2002). It has been suggested that by centralising a diverse range of customer service activities including sales, after-sales support and problem resolution on a 24-7 basis, call centres can increase customer satisfaction (Whiting & Donthu, 2009).

This led to considerable growth in the global call centre industry during the two decades up to 2010 decades (Aksin et al., 2007; Feinberg, Kim, Hokama, De Ruyter, & Keen, 2000). For instance, in the US, the call centre sector grew annually by 20% during the 1990's and now accounts for 3% of all employment (Datamonitor, 1999). In Europe, it is estimated that approximately 2% of the total labour-force works in Call centres (Datamonitor, 1998, 2003) while there is an estimated 1 million call centre agents in India (Aksin et al., 2007). The global estimation is that there are approximately 95,000 call centres employing about 7.5 million people. Mostly these call centres serve the local market (86%), except in countries that have specialized as global subcontractors, such as India, Ireland and Canada (Holman, Batt, & Holtgrewe, 2007). In more recent years growth has continued with a reported 77% of call centres expecting to expand in size (Deloitte Consulting LLP, 2013). In this sense, the call centre industry remains a strong employment creator (Russell, 2008) although the significant rates of growth experienced in the years leading up to the crisis of 2008/09 is not expected to return until national economies fully recover from the crisis (ICMR, 2012).

This growth has been mostly propelled by advances in information technology and the development of e-commerce (Burgers, Ko, Keen, & Streukens, 2000). The use of electronic means of payment and the deregulation of the telecommunication industry, by making transactions less expensive and at the same time more reliable, have allowed companies to broaden their horizons by offering similar products and services at lower costs. For example, customers became more confident about buying online and paying by credit card, without going to the shop or to the bank office to complete a transaction.

On the one hand consumers avoid travel expenses, and companies save staff costs, by replacing face-to-face contact with technology contact. On the other hand, the birth of the call centre has driven changes in many industries that have caused the emergence of new standard practices and behavioural patterns among consumers. Take the example of a consumer who is looking for an electronic appliance and realizes that it could be purchased at a local shop at a relatively expensive price. In a physical world, this customer faces the decision to purchase or not, or to incur the search and time cost, and keeps searching for something cheaper. For the same situation in the virtual world, the customer is able to search online and to compare prices from many different shops. In this sense, as the customer gets more confident buying online, their buying horizons are enlarged, and they can purchase product and services from much more distant geographical places, thus reducing the burden of searching in person. Thus, the call centre is a useful tool that facilitates the communication between customer and businesses, by assisting requirements and closing transactions, and at the same time allows companies to broaden their horizons at lower costs.

As a consequence, the market became much more dynamic and competitive. In this context, the competition now includes local, national and international firms. Hence, when a company is trying to design a product or a service, it may take into consideration not only the performance of the local competitor, but also the performance from throughout the world.

The dilemma faced in this new competitive environment is how to keep quality and satisfaction among customers while reducing costs. In this sense, the appearance of the

call centre plays an important role. The reason is that, nowadays, the success of a company may depend on their call centre operations, whether it is in-house or outsourced, as it is the main place of communication between the consumer and the provider (Aksin et al., 2007; Anton, 1997; Cheong, Kim, & So, 2008).

In fact, the importance of customer satisfaction in this remote context is twofold: on the one hand, managers need to be acquainted with the determinants of customer satisfaction in order to pay attention when developing strategies by avoiding unnecessary expenses on variables that are not related. On the other hand, it is important to clearly identify the consequences of customer satisfaction. As Anton, (1997) (page 4) states, *“the key is to reach a level of caller satisfaction with a sufficiently high probability of customer retention at a cost that is within the established budget of your call centre, taking into account both, internal and external metrics”*. In this sense, keeping customers satisfied with the call centre would be essential for the organization’s managers, but, at the same time, it may enable the minimisation of costs.

It is worth mentioning that the call centre industry is a specific service industry based on a voice-to-voice encounter. In general, customers are less satisfied with the call centre service operation than they are with the more traditional brick n’ mortar service or face to face encounter (Bennington et al., 2000; Makarem, 2009). This fact is basically due to technology complexity, as it may not be accepted by some age groups or cultures (Bennington et al., 2000), or because some customers feel irritated when dealing with automated answering machines (Prendergast & Marr, 1994). However, it seems that is difficult to understand how consumers assess call centres, as in many cases it is not easy

to separate the Call centre operation from other departments of a company in the mind of the customer (Bennington et al., 2000; Burgers et al., 2000). In other words, customers usually assess the companies as a whole, including the product, the service, and the human encounter, whether face-to-face or remotely. In this sense, when they are asked to judge a particular business unit of a company or a specific service, they mix it with others features of the same company.

There are a number of unique characteristics associated with the call centre industry in terms of the types of jobs they offer and the services they provide. Although some literature suggests there is a wide range of realities in terms of the types of jobs and services offered (Marti-Audi., Valverde., & Heraty., 2013; Valverde, Ryan, & Gorjup, 2007), the commonly held belief that call centre jobs are characterised by highly monitored environments, production-line like processes, high demands on emotional labour has a sound basis in empirical studies (Bain & Taylor, 2000; Taylor & Bain, 1999).

Therefore, the importance of examining customer satisfaction and detection of its determinants and consequences in the call centre is hugely important. The identification of these variables can aid managers to estimate and sum up both, the benefits obtained from customer satisfaction and retention as well as the costs required to keep customers satisfied. It involves identifying how consumers really value these apparently subjective aspects of the service, such as determinants of satisfaction, and how their behaviours' vary according to their assessment.

2.3. CUSTOMER SATISFACTION IN THE CALL CENTRE INDUSTRY

In order to examine the customer satisfaction in the context of the call centre industry, we first carried out a generic initial search in the Scopus search engine in order to identify the international scientific literature concerning the call centre industry, more specifically looking for studies related to customer satisfaction in this particular sector. But to date academic literature on this specific topic is not abundant.

Starting at the most general level, figure 2.1 outlines the number of publications on call centres from 1972 to 2014, showing a peak in 2008. Probably in line with the growth and consolidation of the sector, academic interest in call centre has declined slightly in the last 5 years. Also to highlight is the business interest on this sector. Indeed, of the 3266 publication identified in Scopus database, 1942 (60%) are academic journal articles that deal directly with the call centre, while the remaining 40% are non-academic journal articles.

Figure 2.1 Publications on call centre Industry (Scopus Database)

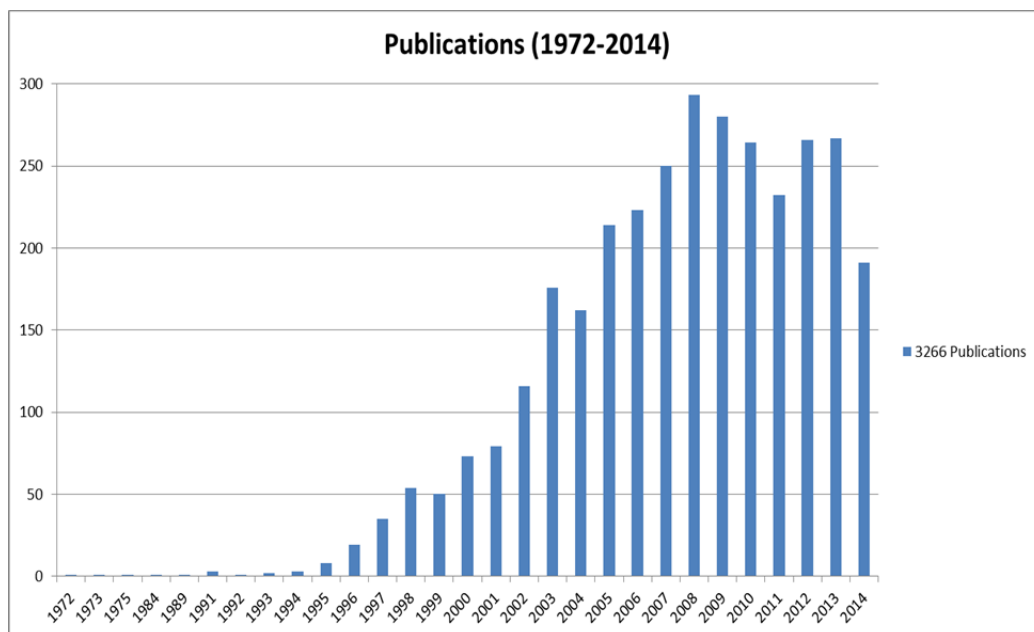


Figure 2.2. Journal articles on call centre Industry (Scopus database)

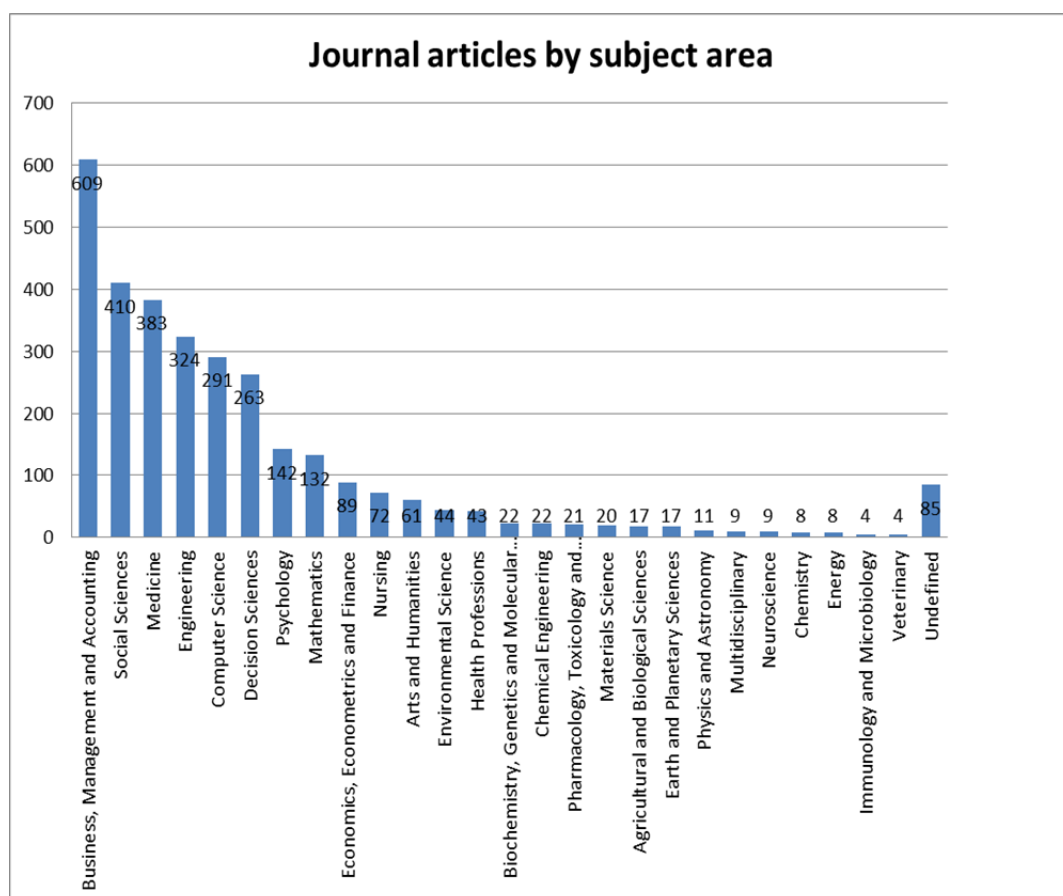
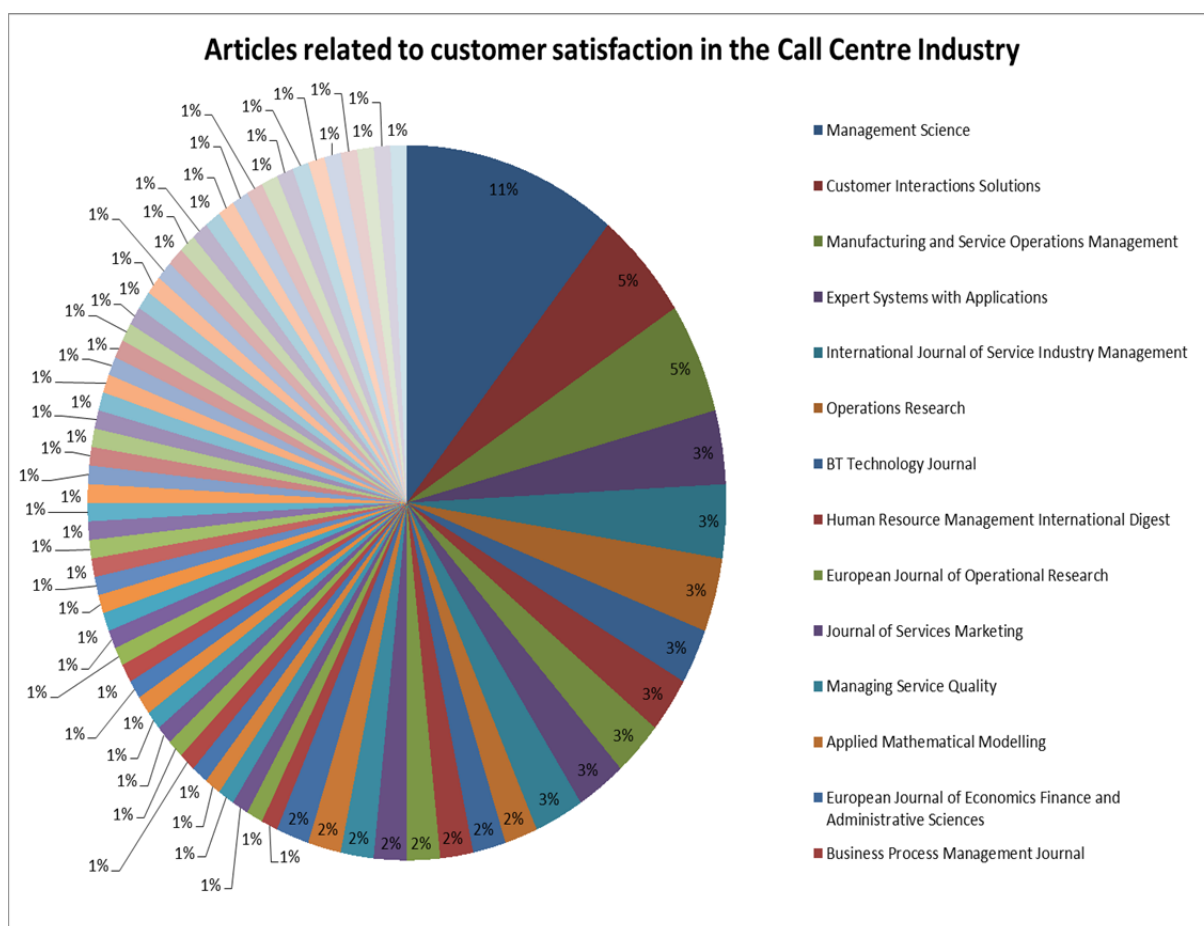


Figure 2.2 illustrates the distribution of the 1942 journal articles on call centres classified by subject area. These studies cover a wide range of topics including server configuration, employee performance, job security, moral stress, and to a much lesser extent customer satisfaction. In fact, only 120 are journal articles that specifically deal with customer satisfaction in the context of call centres (see figure 2.3.), yet most of these do not measure or determine customer satisfaction directly.

Figure 2.3. Articles related to customer satisfaction in call centres (120 articles)



As we can see in the chart, a greater part of these studies are related to management areas. However, it is important to highlight that there has been considerable interest in

the study of topics that affect employees in call centres, but not so many papers that affect customers. For example, some authors have studied the human resource practices from the company viewpoint, by addressing concepts such as: job quality (R Batt, 2002; Gorjup, Valverde, & Ryan, 2008; Marti-Audi. et al., 2013; Shire, Schönauer, Valverde, & Mottweiler, 2009; Valverde et al., 2007), team support (Sergeant & Frenkel, 2000), employee's commitment (Malhotra & Mukherjee, 2004), training and recruitment (Townsend, 2007), etc. Meanwhile, others have studied the employee side from the agents' points of view, by considering concepts such as employee dissatisfaction or employee emotional dissonance (Poddar & Madupalli, 2012; Wegge, Vogt, & Wecking, 2007). Considering the few studies that focus on customers, it is worthwhile to point out that many of these tend to be carried out at the micro level, by trying to examine specific links between customer satisfaction and variables such as Key Performance Indicators (Feinberg A. et al., 2002; Feinberg et al., 2000) or managerial strategies (Gilmore, 2001). However there is little research carried out at the macro level, in terms of the determinants and consequences of customer satisfaction in this remote service.

Thus, in order to further deepen the study about customer satisfaction in the context of the call centre, we carry out a review of the existing literature on this topic. In this sense, we may take into account what elements could possibly determine or affect customer satisfaction. We can infer from the literature that, in general, customer satisfaction may be influenced by a set of variables such as price, product performance, and service (Anderson & Sullivan, 1993; Bitner et al., 1990; Brown & Maxwell, 2002; Churchill Jr. & Surprenant, 1982; Day, 1984; Howard & Sheth, 1969; Levesque & McDougall, 1996; Parasuraman, Zeithaml, & Berry, 1988). But how can we assess

companies that provide only services? And how can we keep customers satisfied if the service is poor? In many cases it is very difficult to understand how customers evaluate services or what their expectations regarding services are.

The call centre industry is a peculiar service industry, as it is based on a voice to voice encounter. In general, customers are less satisfied with the call centre service than they are with the more traditional brick n' mortar service or face to face encounter (Bennington et al., 2000; Makarem, 2009). Academic researchers attribute this fact to different reasons, such as technology complexity that may not be accepted by some cultures (Bennington et al., 2000); the difficulties experienced by older consumers with technology (Makarem, 2009); a general lack of experience in dealing with technology (Mittal et al., 1999); people feeling irritated when dealing with automated answering machines (Prendergast & Marr, 1994); slow service, rude employees, and overall poor service (Helms & Mayo, 2008).

Also, it is worthwhile to note that voice to voice encounters may involve both human and technology encounters (D. Dean, 2008; Ellway, 2014). Thus, when the customers try to contact with the call centre, the first step is to navigate through an automated system in order to route the call to the right department. According to some authors, customers feel frustrated and angry when dealing with interactive voice encounters, mainly because they have no control over the routing system, overall menu and system speed (Ellway, 2014) and also because some groups of customers consider that interactive voice systems only benefit the firm (D. Dean, 2008). But when finally customers route their call to the right department, before engaging in human

communication, the customer may have to pass through the second filter, which is waiting until the call gets answered. Waiting time is a determinant of customer satisfaction (Whiting & Donthu, 2009), and companies try to reduce the perception of waiting time by providing customers with queuing information or the possibility of listening to music. However, queuing information do not affect perceived waiting time, as customers do not have visual information about the queue's progress (Whiting & Donthu, 2006). Instead, the perceived waiting time could be decreased if the customers are listening music that they like (Whiting & Donthu, 2006). Despite of these alternatives provided by companies, there still are some reasons that force customers to hang up the phone without interacting with the agent. The reason of abandonment is still not clear, but it could be caused by technology complexity, busy signal or long waiting time (Bennington et al., 2000; Prendergast & Marr, 1994) .

Continuing in the same line, it seems that the waiting time could trigger satisfaction only if customers subsequently are provided with quality information and adequate service (Garcia et al., 2012). In other words, it implies that when customers overcome technology difficulties and get the connection with the agent, their satisfaction will depend directly on the employee ability to provide service quality (Cheong et al., 2008; Garcia et al., 2012), complete a first call resolution (Aksin et al., 2007; Feinberg et al., 2000), as well as employees' behaviour in terms of adaptiveness, responsiveness, assurance and empathy (Burgers et al., 2000; de Ruyter & Wetzels, 2000). In other words, we can say that both, tangible and intangible dimensions are involved in assessing the call centre service. However, only a small number of researchers have

integrated different groups of metrics in their call centre studies. For example, (Anton, 1997) highlighted a set of internal and external variables as Call centre metrics.

Next we are going to present and connect different groups of variables that were considered by researchers in their studies on the call centre industry. Table 2.2 presents a review of the literature about call centre management, mainly showing which groups of variables were considered by different researchers in their studies. The intention of the table is, on one hand, to highlight that the majority of studies have centred their attention on the employee side, and on the other hand, to identify what relationships between types of factors have been the focus of research attention to date. Thus, the lines with studies where two or more dots are marked mean that authors have searched for cause-effect or other relationships between those two areas (for example, the first line incorporates studies that have linked managerial strategies with HR outcomes).

From this reviewed literature we may infer that customer satisfaction in the Call centre industry is linked to different factors that can be classified into the following groups: As determinants, we can identify managerial strategies (production line approach, customer orientation approach, off-shoring type contract); HR practices (training, salaries, job design, job discretion, team-working); HR Outcomes (employee satisfaction, burnout, turnover, absenteeism); employee behaviour (customer orientation, responsiveness, use/non use of scripts, ambidextrous behaviour); employee productivity (mainly key performance indicators); service quality (SERVQUAL metrics, and others). As outcomes, we can identify customer behaviour (negative word of mouth, repurchase intention, willingness to recommend); company outcomes (revenue growth, market

performance); and others (unfriendly customer, customer abuse, technology use). In the following section we explore each of these groups by examining the different approaches to these concepts and developing a proposal for a theoretical model.

Table 2.2. Topics addressed by academic researchers on Call centre management

| Authors | Managerial strategies | HR practices | HR outcomes | Employee behaviour | Employee productivity | Service quality | Customer satisfaction | Customer behaviour | Company outcomes | Others |
|--|------------------------------|---------------------|--------------------|---------------------------|------------------------------|------------------------|------------------------------|---------------------------|-------------------------|---------------|
| (Connell, Hannif, & Burgess, 2009; Litte & Dean, 2006; McGuire & McLaren, 2009; Wallace, Eagleson, & Waldersee, 2000) | • | | • | | | | | | | |
| (Aguir, Akşin, Karaesmen, & Dallery, 2008; Bain, Watson, Mulvey, Taylor, & Gall, 2002; Gilmore & Moreland, 2000; Huang, Newell, Poulson, & Galliers, 2007) | • | | | | | | | | | |
| (A. Dean & Rainnie, 2009; Gorjup, Valverde, & Ryan, 2009) | • | • | | | | | | | | |
| (Curry & Lyon, 2008; Piercy & Rich, 2009a) | • | • | | | | • | | | | |
| (Schalk & van Rijckevorsel, 2007; Sergeant & Frenkel, 2000; Townsend, 2007) | | • | • | | | | | | | |

| Authors | Managerial strategies | HR practices | HR outcomes | Employee behaviour | Employee productivity | Service quality | Customer satisfaction | Customer behaviour | Company outcomes | Others |
|--|------------------------------|---------------------|--------------------|---------------------------|------------------------------|------------------------|------------------------------|---------------------------|-------------------------|---------------|
| (Bharadwaj & Roggeveen, 2008) | | | | • | | | • | | | |
| (Castilla, 2005; DeNucci, 2011; Frenkel, Tam, Korczynski, & Shire, 1998) | | • | | | • | | | | | |
| (Eric, Tom, & Charles, 2006) | | • | | | | • | | | | • |
| (Sharma et al., 2009) | | | | | | • | • | • | | |
| (Bennington et al., 2000) | | | | • | | | | | | |
| (Aksin et al., 2007) | • | | | • | • | • | • | | | |
| (Miciak & Desmarais, 2001) | | | | | | • | • | | | |
| (Brown & Maxwell, 2002) | | | | • | | • | • | | | |
| (de Ruyter & Wetzels, 2000; Makarem, 2009) | | | | • | | | • | • | | |
| (Burgers et al., 2000; Jaiswal, 2008; Upal & Dhaka, 2008) | | | | | | • | | | | |
| (A. M. Dean, 2002) | | | | | | • | | • | | |
| (Whiting & Donthu, 2009) | | | | | | | • | | | |

| Authors | Managerial strategies | HR practices | HR outcomes | Employee behaviour | Employee productivity | Service quality | Customer satisfaction | Customer behaviour | Company outcomes | Others |
|---|------------------------------|---------------------|--------------------|---------------------------|------------------------------|------------------------|------------------------------|---------------------------|-------------------------|---------------|
| (A. Dean, 2004; Rafaeli, 2008) | • | | | | | • | | | | |
| (Walsh, Gouthier, Gremler, & Brach, 2012) | • | | | | | | • | • | | |
| (Wood, Holman, & Stride, 2006) | | • | | • | | | | | | |
| (Gorjup et al., 2008; Holman, 2013; Marti-Audi et al., 2013; Shire et al., 2009; Valverde et al., 2007) | | • | | | | | | | | |
| (de Véricourt & Zhou, 2005) | | | | | • | • | | | | |
| (Helms & Mayo, 2008) | | | | • | | • | • | • | | |
| (A. Dean, 2007) | • | | | | | • | | • | | |
| (Mukherjee & Malhotra, 2006) | | • | • | | | • | | | | |
| (Ren & Zhou, 2008) | • | | | | | | | | • | |
| (Palson & Seidlitz, 2000; Piercy & Rich, 2009b) | | • | | | | | • | | | |
| (Marr & Parry, 2004) | • | • | | | | | • | | | |
| (Jasmand, Blazevic, & de Ruyter, 2012) | | | | • | | | • | | • | |

| Authors | Managerial strategies | HR practices | HR outcomes | Employee behaviour | Employee productivity | Service quality | Customer satisfaction | Customer behaviour | Company outcomes | Others |
|--|------------------------------|---------------------|--------------------|---------------------------|------------------------------|------------------------|------------------------------|---------------------------|-------------------------|---------------|
| (Abdullateef, Mokhtar, & Yusoff, 2011; Cheong et al., 2008; Feinberg A. et al., 2002; Feinberg et al., 2000) | | | | | • | | • | | | |
| (Keiningham et al., 2006) | | | | | | | | • | | |
| (Sharma, 2012) | | | | | | • | • | • | • | |
| (Rosemary Batt & Colvin S., 2011) | | • | • | | | | • | | | |
| (Wegge et al., 2007) | | | | • | • | | | | | • |
| (Poddar & Madupalli, 2012) | | | • | | | | | | | • |

2.3.1. Service Quality

Most studies addressing the relationship between service quality and customer satisfaction suggest a positive link between the two (Ciavolino & Dahlgaard, 2007; Maddern et al., 2007; Ravichandran, Mani, Kumar, & Prabhakaran, 2010; Sharma et al., 2009; Upal & Dhaka, 2008). However sometimes this relationship could be moderated by an external factor such as attitude toward the service provider (Sharma et al., 2009; Sharma, 2012). This means that even if the company provides a high service quality, if the customer has a negative attitude towards the organization, satisfaction will not be achieved (Sharma et al., 2009).

It is important to consider whether a call centre is set up in order to achieve service quality or customer satisfaction. Indeed the call centre may be seen as a functional tool that is used just to gain more customers into the business, or as a CRM tool in order to highlight a customer orientation approach. In this latter perspective, the call centre is determined to build up stronger relationships with the customer by supporting and helping customers in their requirements. In both cases, call centres are created to establish a line of communication with all actual and potential customers, and as suggests some authors, everything in a company represents a means to communicate (Kitchen & Brignell, 2004). Thus, it should be taken into consideration that the quality level of the service provided by call centre would also transmit some messages to the market.

In this sense, interest has not so much been to address the causality between service quality and customer satisfaction, but to discern whether call centres are really looking

for service quality or for customer satisfaction. And if so, in which cases, and how can we best address and measure service quality in this remote encounter?

There are two key points to consider when defining service quality: on the one hand we must consider the dimensions which are used for measuring the traditionally used SERVQUAL (Parasuraman et al., 1988), and on the other hand, we may distinguish how different individuals assess the service quality, as managers, agents and customers have different points of view regarding service quality (Gilmore, 2001). Drawing upon the five dimension of the SERVQUAL model (Parasuraman et al., 1988) (responsiveness, tangibles, reliability, assurance and empathy) is very common among researchers. Nevertheless other alternatives should not dismissed, such as the difference between customer expectation and customer perception of quality delivered (Upal & Dhaka, 2008; Zeithaml, Berry, & Parasuraman, 1993) or a mix between customer orientation, SERVQUAL and performance indicators metrics (A. Dean, 2004). There is also some confusion regarding the use of SERVQUAL, as some authors draw on SERVQUAL metrics when attempting to measure customer satisfaction (Keiningham et al., 2006). In any case, the five metrics of the SERVQUAL model could be split up into 2 groups: tangible metrics and intangible service. In the context of the call centre, these groups will be represented by technology service encounter and human service encounter (reliability, responsiveness, assurance, empathy), respectively (D. Dean, 2008; Ellway, 2014).

Tangible service quality (tangible dimension)

According to some studies, it seems that in many industries tangibles fail to determine customer satisfaction (Pantouvakis, 2010). Although call centres are considered to be a CRM tool in order to highlight the customer orientation approach of a company (Korczynski, 2001; Kumar, 2010; Payne & Frow, 2005), some studies suggest that customers are still less satisfied with call centre service than with traditional service (Bennington et al., 2000). This is mainly because of technological complexity and busy signals, which are considered an irritant by customers (Bennington et al., 2000; Makarem, 2009; Mittal et al., 1999). Even though the link between customer satisfaction and irritation is not clear yet, as “irritation” is a negative outcome, we may assume that some of the tangible aspects lead to negative outcomes.

Therefore, on the one hand, this negative outcome is originated by technological complexity, which in fact is a tangible measure from the SERVQUAL model (Parasuraman et al., 1988). However it seems that this perception is present only in some group of customers, such as the older generation (Makarem, 2009), or beginners in the use of technology (Mittal et al., 1999). Meanwhile others spread the concept of technological complexity to a larger extent, by supporting that technology may not be accepted by some cultures (Bennington et al., 2000). In this sense, companies may take into account this human limitation when designing remote services, by helping and supporting customers in the use of this new technology.

On the other hand “busy signal”, which was presented in the literature as one of the key performance indicators, and was confirmed not to be related to customer satisfaction in the context of the call centre (Feinberg A. et al., 2002; Feinberg et al., 2000). In fact,

the existence of busy signals depends on managerial strategies in terms of deciding the kind of routing server system and queuing model (Jouini, Dallery, & Akşin, 2009; Whitt, 1999). Nevertheless, the routing server is a tangible measurement, so, it may be the case that we should consider “busy signal” as a tangible SERVQUAL indicator rather than a performance indicator. Nowadays technology allows call centre to replace this irritant factor (busy signal) with alternatives such as a telephone answering machine (TAM). TAM is a device that answers telephone calls and record caller messages, so it should also be included among the tangibles indicators. Although the use of answering machines has become one of the call centre’s typical characteristics, it also displays negative outcomes, mainly because in many cases it forces customers to continually repeat the purpose of the call and it makes customers wait longer than they were expecting to (Prendergast & Marr, 1994). In addition, the use of answering machines entails extra costs for the customer, as they often pay the cost of every second they wait on the line. So, besides the repeated and long queues on the line, customers are bound to cover the call’s cost, which has a negative effect on the customer’s attitude toward the call centre. Indeed, the use of answering machine was registered as one of the most complained about facts in UCE (Spanish Consumers Union).

To sum up, if we consider tangibles as a single dimension, research shows that in the call centre industry it appears to create some negative outcomes (Bennington et al., 2000; Feinberg A. et al., 2002; Feinberg et al., 2000).

Human service quality (intangible dimension)

Regarding human service quality, the call centre service quality depends on the adaptiveness, assurance, empathy and authority of call centre agents (Burgers et al., 2000) and communication, including attentiveness, perceptiveness and responsiveness (Bharadwaj & Roggeveen, 2008; de Ruyter & Wetzels, 2000). In fact all of these could be integrated within SERVQUAL metrics. For example, communication is one of the dimensions that has been integrated into the assurance concept (Parasuraman et al., 1988). This concept causes some contradiction in the existent literature on call centre industry. For example, the difficulties in communication provided by an offshore call centre because of the accent were found to be a driver of dissatisfaction by some authors (Sharma et al., 2009). In contrast Walsh et al., (2012) suggest that the call centre's location and the accent detection do not affect service quality, nor customer satisfaction. In fact, considering call centre location as a determinant of service quality or customer satisfaction may induce confusion. There are companies that outsource their call centre operations to different emerging countries in order to reduce costs. So the problem raised from communication with foreign agents could be related to call centre's managerial strategies, as most of them orient their efficiency towards the parent company, in order to attract more investment, and not towards customers. So, if this is the case, we may conclude that human communication quality depends on managerial strategy. But it seems that, in the context of call centres, managers do not take into account SERVQUAL metrics, as they mostly measure service quality by performance indicators (Jaiswal, 2008).

In other words we can say that both tangible and intangible dimensions are involved in assessing the call centre service, however, only few researchers integrated different group of metrics in their studies.

Who assesses service quality?

In the context of the call centre, it is important to consider who assesses the service quality because managers, agents and customers have different points of view regarding service quality (Gilmore, 2001).

From the customer point of view, as stated above, call centre service quality depend on adaptiveness, assurance, empathy and authority of call centre agents (Burgers et al., 2000) and communication, including attentiveness, perceptiveness and responsiveness (Bharadwaj & Roggeveen, 2008; de Ruyter & Wetzels, 2000), that in fact could be integrated among SERVQUAL metrics.

However, some authors studied the service quality from the customer dissatisfaction perspective. From this point of view customer satisfaction is negatively related to factors such as rude employees, overall poor service and slow service (Helms & Mayo, 2008). So again, these metrics could be gathered around SERVQUAL and Key Performance Indicators (KPI). On the one hand, “rude employees” and “overall poor service” are the opposite of Assurance and Empathy, and “slow service” could be integrated into KPI, such as “average speed of answer”. In this context, it should be noted that, according to some authors, customers do not mention “service speed” when they are satisfied, but they do when the call ends up with dissatisfaction (Helms &

Mayo, 2008). However, the importance of this behaviour should not be generalized, as customers defer in their conduct towards complaining or other dissatisfaction outcomes (Bodey & Grace, 2006).

In contrast to customer expectation, managers disregard customer orientation by using operational metrics, such as key performance indicators, in order to measure service quality (DeNuCall centre i, 2011; Jaiswal, 2008; Liu, 2010) .

To sum up, in order to achieve customer satisfaction in the call centre industry, we may focus on both technology service quality and human service quality (Brown & Maxwell, 2002; Makarem, 2009; Miciak & Desmarais, 2001) and try to align them with customer expectations as well as with company's forecast.

2.3.2. Key Performance Indicators (KPI)

From the existing literature on the Call centre industry we can identify 13 key performance indicators: service level (percentage of call s answered within a specific number of seconds), average speed of answer, average time in queue, average abandonment rate, percentage of first call resolution, adherence to schedule, average talk time, average after call work time, employee turnover rate, percentage of call s blocked, time before abandoning, inbound call s per TSR (telephone service representative), total call s (Feinberg et al., 2000). However, all these metrics were contemplated as internal service quality metrics in former studies (Anton, 1997). These disperse classifications cause confusion, as the line between SERVQUAL metrics and

KPI metrics become blurred. Therefore, we may consider the similarities and differences among these indicators, and capture them in the most appropriate category.

In this sense, maybe not all these metrics are call centre performance indicators. Performance measurement implies a focus on individuals, groups, organizations or systems. So, in our case, from this large pool of indicators suggested by the literature as performance indicators, we can extract three different groups:

- 1) Employee attitude (commitment versus absenteeism): employee turnover rate; adherence to schedule;
- 2) Employee performance: service level; average speed of answer; average talk time; average after call work time;
- 3) Call centre system performance: average abandonment rate; average time in queue, percentage of first call resolution, percentage of calls blocked, time before abandoning; inbound calls per TSR; total calls.

We will not address variables related to employee attitude now, as it is going to be reviewed later, within the section on employee behaviour.

Regarding the employee performance group of indicators, in general research suggests a positive link between customer satisfaction and service level (Cheong et al., 2008). However, it is not clear yet whether service level is a determinant factor of customer satisfaction or is simply a related factor. Some studies conclude that service level is one of a mix of variables that just somehow influence customer satisfaction (Feinberg et al.,

2000). Nevertheless some research suggests that this relationship could be specific only for the Call centre sector, as in the banking sector no relationship has been found (Feinberg A. et al., 2002). So the crucial point would be to detect not how many variables are related to caller satisfaction, but which of those variables are really customer's satisfaction determinants.

In addressing the system performance group of indicators, some authors suggest that from all the variables mentioned above, only first call resolution and *abandonment rate* could be considered as determinants of customer satisfaction in the Call centre industry (Abdullateef et al., 2011; Aksin et al., 2007; Feinberg et al., 2000). On the one hand, this implies that the customer will be dissatisfied if, for some reason, he finds himself forced to hang up the phone without interacting with the agent. The reason for abandonment is still not clear, but it could be caused by the complexity of technology, busy signal, long waiting times or answering machines (Bennington et al., 2000; Prendergast & Marr, 1994). And, as we mentioned before, all these metrics are part of the tangible dimension from SERVQUAL model. In this way, the waiting time (average time in queue) may trigger satisfaction only if customers are subsequently provided with quality information and service (Garcia et al., 2012) or under a low estimation error (the difference between the perceived and actual waiting time) (Whiting & Donthu, 2009). Putting it in another way, we may conclude that even if the system does not perform properly by making customers wait longer than they were expecting to, employees are still able to achieve customer satisfaction by providing quality information.

On the other hand, *first call resolution*, as a Call centre performance indicator, drives customer satisfaction (Abdullateef et al., 2011; Aksin et al., 2007; Feinberg et al., 2000). The first call resolution is measured by the percentage of callers that receive a satisfactory solution on the first call. In other words, it implies that when customers overcome technology difficulties and get the connection with the agent, their satisfaction will depend directly on the employee adequately providing the service (Cheong et al., 2008; Garcia et al., 2012), as well as the employee's behaviour in terms of adaptiveness, responsiveness, assurance and empathy (Burgers et al., 2000; de Ruyter & Wetzels, 2000). In addition, these performances are expected to be achieved during the first contact (Abdullateef et al., 2011; Aksin et al., 2007; Feinberg et al., 2000). In other words, customers appreciate the positive outcome of the call if they are provided with quality information that meets their requirements on the first interaction with the company.

To sum up, we may conclude that some performance indicators, such as abandonment rate, are mediators between the tangible dimension and customer dissatisfaction. It means that customers who are forced to abandon the call go on to a dissatisfaction status. However, if they overcome technology difficulties and get connected with the agent, their satisfaction will depend directly on the employee's performance to provide service quality (Cheong et al., 2008; Garcia et al., 2012), as well as on performance metrics such as first call resolution (Aksin et al., 2007; Feinberg et al., 2000).

Service quality and first call resolution depend mainly on employees and how they perform their tasks. However, there also could be some connection between first call

resolution and managerial strategies. In some cases call centre jobs are designed in such a way that responsibilities are distributed among agents and in many cases employees are bound to transfer the call to another department. Consequently, customers find themselves repeatedly facing technology and paying the call's cost while waiting and listening to the answering machine. In this case, the customer is transferred instantaneously, so that the customer satisfaction still could be achieved by providing quality information and service (Garcia et al., 2012). Hence, employees play the leading role in these actions that lead to customer satisfaction.

To conclude, we may highlight that almost all the metrics identified in the existing literature as Key Performance Indicators, in fact could be grouped as system performance or employee performance. Henceforth, we are going to address these variables as part of service quality or employee behaviour dimensions.

2.3.3. Employee behaviour

In this section we address the literature that deals with employee attitudes and behaviour in the call centre industry. Thus, the essential point would be to identify the determinants and outcomes of employee behaviour. In this sense, we may address two questions: how can call centre managers assure the service provided by their employees? And how can employee behaviour and attitude affect customer satisfaction?

Employee-customer relationship

As determinants of quality of the service provided by employees we can highlight: employee satisfaction, suggested by the service profit chain model (Heskett & Schlesinger, 1994); and communication, including the attentiveness, perceptiveness and responsiveness of employees (Bharadwaj & Roggeveen, 2008; de Ruyter & Wetzels, 2000). In spite of the fact that employee satisfaction is considered a determinant of both customer satisfaction and service quality (Heiner Evanschitzky, Sharma, & Prykop, 2012), there is evidence that in Call centres, besides the tangible dimensions, all the dimensions of the SERVQUAL model are negatively related to employee satisfaction (Maddern et al., 2007; Ramseook-Munhurrin, Naidoo, & Lukea-Bhiwajee, 2010). Indeed, it seems that the excessive demand and monitoring on reaching SERVQUAL intangible metrics cause stress and emotional burnout among employees (Rod & Ashill, 2013), which ultimately is reflected as employee dissatisfaction.

It is noteworthy to highlight that throughout the call centre literature only a few researchers address the direct link between employee satisfaction and customer satisfaction (Heiner Evanschitzky et al., 2012; Upal & Dhaka, 2008). In fact, Upal & Dhaka, (2008) suggest a reciprocal correlation between employee satisfaction and customer satisfaction. It means that not only employee satisfaction and behaviour can lead to customer satisfaction, but also that customer feedback, in terms of recognition or abuse, can generate satisfaction, dissatisfaction, or emotional dissonance among employees (Litte & Dean, 2006; Poddar & Madupalli, 2012; Wegge et al., 2007). For example, when employees are dealing with problematic or demanding customers, the negative customer's feedback is perceived as lack of recognition, which in turn leads to employee dissatisfaction or burnout. On the contrary, customer appreciation can

generate satisfaction. So, the relationship between customer and employee is bidirectional by nature, and depending on the interaction, satisfaction can be achieved by both parts or neither of them.

It may be the case that the encounter between employee and customer is also influenced by different peripheral factors, such as customer attitude toward the company or customer ethnocentrism (preference for domestic products) on the one hand (Sharma et al., 2009; Sharma, 2012), and employee commitment to the organization on the other hand (Malhotra & Mukherjee, 2004; Sergeant & Frenkel, 2000). As a result, the negative predisposition from one participant of the service encounter is prone to create a negative interaction between both parts. Consequently, not only customers will feel dissatisfied with employee service (Helms & Mayo, 2008). Employees, when dealing with problematic customers, will experience an emotional dissonance that lead to lower task performance (Wegge, 2006) or to turnover (Poddar & Madupalli, 2012).

Employee–company relationship

Call centres are hybrid organizations between the core activity and the hygiene/administrative activities, which frequently adopt a low-cost managerial approach (Huang et al., 2007; Piercy & Rich, 2009a) and at the same time provide a hybrid service between staff competence, technology usage, reliability and price (Ganguli & Sanjit, 2010)

In this context, employees are the core bridge that connects the organization and the customer. This involves many different requirements at the same time (Jasmand et al.,

2012). On the one hand, in order to satisfy customers, employees are expected to provide service quality: attentiveness, perceptiveness, responsiveness and assurance (de Ruyter & Wetzels, 2000; Upal & Dhaka, 2008). On the other hand, employees must properly use the technology and accomplish managerial requirements in terms of number of calls answered and other key performance indicators (Cheong et al., 2008; Feinberg et al., 2000). This excessively demanding environment causes stress among employees. When employees control their tasks, the stress can be positive and we can say that we speak about motivation. In contrast, the loss of control over task activity, causes negative stress or emotional exhaustion, which subsequently leads to employee's turnover or absenteeism (Poddar & Madupalli, 2012).

So, call centre employees must be able to satisfy customers (Sergeant & Frenkel, 2000), to solve problems (Bharadwaj & Roggeveen, 2008), to deliver quality service (de Ruyter & Wetzels, 2000; Upal & Dhaka, 2008), to generate performance (Cheong et al., 2008; Feinberg et al., 2000; Piercy & Rich, 2009a, 2009b) and to engage in several activities at the same time, such as adaptive selling (Heiner Evanschitzky et al., 2012; Jasmand et al., 2012). All of this must take place in a stressful environment, dealing with problematic customers (Poddar & Madupalli, 2012; Wegge, 2006) under managerial pressures that adopt a production line approach (Gilmore & Moreland, 2000; Gilmore, 2001) and a low-cost approach to HR practices (Wallace et al., 2000). In addition, there is some supporting evidence that call centre employees also experience work-family conflict due mainly to emotional dissonance, workload and uneasiness to deal with customer dissatisfaction (Choi, 2012). Maybe this is the reason why the call centre literature does not sufficiently address the employee satisfaction

construct. Indeed, research focuses mostly on the opposite, that is, employee dissatisfaction measured in terms of employee burnout, turnover and absenteeism. As some authors suggest, it seems that employee turnover and absenteeism are the main internal problems in call centres (Piercy & Rich, 2009b) and could be solved through a different approach to HR practices.

2.3.4. Human Resources Practices

Keeping in mind the competing demands made on employees, we now turn to the HR aspects. In this sense, it should be noted that in order to reduce stress, turnover and absenteeism among employees we should turn to appropriate HR practices. The working environment, employee behaviours and outcomes may depend on how well designed the HR practices are. For instance, some authors propose employee commitment and ability to deliver quality service are consequences of positive HR practices (Litte & Dean, 2006), meanwhile others support that Human resources practices in terms of performance appraisal, employee training and open communication lead to service quality as well as to customer satisfaction (Curry & Lyon, 2008).

Notwithstanding, the existent literature suggests that in call centres both “hard” quantitative measures, as well as “soft” qualitative measures are considered in order to measure and outline employee performance (Bain et al., 2002). In this sense, the adoption of sacrificial Human Resources Practices (Wallace et al., 2000), such as task orientation and measuring the employee’s productivity by “hard” quantitative measures,

are drivers of negative outcomes, such as employee turnover or lack of commitment (Connell et al., 2009; Wallace et al., 2000).

So in order to deal with these negative outcomes, the literature suggest that Human Resource managers must consider adopting a customer orientation approach and improve job quality (Rosemary Batt & Colvin S., 2011; Frenkel et al., 1998; Marr & Parry, 2004; Wood et al., 2006). There are different approaches and views to the job quality metric. On the one hand, it is considered that job quality depends on external factors, such as the economic and politic regime (Holman, 2013). On the other hand job quality and job outcomes such as turnover or employee commitment, depend also on internal factors such as contract characteristics (Rosemary Batt & Colvin S., 2011; Schalk & van Rijckevorsel, 2007; Valverde et al., 2007), training programs (Marr & Parry, 2004; Piercy & Rich, 2009b; Valverde et al., 2007), teamwork (Hutchinson, Purcell, & Kinnie, 2000), and recruitment of emotionally ready employees (Poddar & Madupalli, 2012; Townsend, 2007).

It seems that recruitment plays an important role in call centres, as hiring appropriate employees makes it possible to improve results (A. Dean & Rainnie, 2009). In addition, it seems that appropriate recruitment influences training in two ways. First of all, by employing referrals rather than non-referrals, we can lessen training cost as it was shown that referrals learn from their referees (Castilla, 2005). Furthermore, it seems that referrals perform better at an earlier time span compared with non-referrals (Castilla, 2005), although in the long run their performance is balanced out. It implies that we can save some expenditure on training staff and at the same time get better results from our

workforce during the trial work period. Secondly, emotionally ready employees are more prone to deal with stressful job environments without giving up. This is a key factor in reducing turnover and absenteeism, and saves costs related to these negative outcomes. So, it is important to highlight this personal characteristic through an emotional intelligence test of candidates during the selection process (Poddar & Madupalli, 2012; Townsend, 2007).

On the contrary, other authors state that personal characteristics and job characteristics are not related to turnover or absenteeism. Instead, they suggest that contract characteristics and employee commitment are related to both employee outcomes (Schalk & van Rijckevorsel, 2007).

There is also evidences that employee's well-being in call centres also depends on the physical environment (McGuire & McLaren, 2009). So, even if the call centre manager recruits the right employees and ensures adequate training, it is still not enough to avoid turnover and absenteeism. Employees must be provided with a good physical environment, job security and company support. Consequently, employee well-being and commitment will be reached (Rosemary Batt & Colvin S., 2011).

According to (Hutchinson et al., 2000), teamwork plays an important role in the call centre job design, as it reduces turnover and absenteeism among employees and at the same time improves customer satisfaction. Effective teamwork was designed in the manufacturing context and encompasses dimensions such as group autonomy, decentralized problem-solving, team discretion and collective responsibility (Thompson

& Wallace, 1996), but it seems that in the context of call centre this practices is not common, being substituted by teams that are designed only to facilitate staff control (Broek, 2004). The staff control and monitoring may be aligned with managerial objectives, which in the call centre environment may pose a contradiction between service quality and efficiency (Raz & Blank, 2007).

To conclude, HR managers should be able to reduce burnout, absenteeism and turnover among employees by adopting positive HR practices. They are responsible for designing the adequate workplace and tasks for employees, recruiting suitable staff, training them, and develop teamwork in order to obtain the expected performance, which should be monitored properly. This should lead to employee retention and commitment to the company by assuring job security, company support and physical environment. And all these steps should be aligned with the company managerial strategies, in light of the main aim of the call centre and the available budget.

2.3.5. Managerial Strategies

In terms of managerial approach, the literature suggests that it also plays an important role in call centre operation. We can identify two main managerial approaches: the production-line approach, which focuses on quantitative performance; and customer orientation or empowerment approach, which focuses on qualitative performance (Gilmore & Moreland, 2000; Gilmore, 2001). In other words, call centres that adopt the

production-line approach basically emphasise handling a large number of calls or focus on sales volume, and usually do not take into account the quality of the service provided or the satisfaction of customers. In this sense, in order to achieve their goals, these types of organizations try to standardize their operations by constantly pressurising and controlling their staff. On the contrary, call centres which adopt a customer-orientation approach are characterized by focusing on service quality and concern about customer satisfaction. In this sense, these types of organizations try to commit and motivate their employees by empowering and giving company support so that staff is able to provide service quality.

Although some authors report the use of both quantitative as well as qualitative metrics in order to measure call centre performance (Bain et al., 2002), there is also evidence that call centre managers still focus mostly on quantitative metrics (Gilmore, 2001), which affect negatively employees ability to deliver service quality (A. Dean & Rainnie, 2009). So, as we mentioned before, employees are the core part of call centre activity, as they directly deal with customers and at the same time use all the tools provided by the company. Thus, in order to achieve results, managers must design appropriate HR practices and leverage technology efficiently (Eric et al., 2006). But, as call centres are hybrid organizations (Huang et al., 2007; Piercy & Rich, 2009b), this inner management and control is sometimes determined by the type of contract between the client company and the call centre (Ren & Zhou, 2008). In other words, it means that when a call centre is outsourced, the managerial strategies depend on what type of service has been contracted, the agreed payment system and the contract design within the outsourcing centre (pay per call resolved, pay per call resolved plus share costs, partnership

contract or piecemeal). For example, the piecemeal contract (the parent company pays for each call attended) may coordinate the staff level, but not the effort level. Meanwhile the “pay per call resolved” contracts (the main company pays for call resolution) compel call centre managers to design their operations in order to deliver service quality. The other two types of contracts that are suggested are: partnership contract (where the call centre is paying a user fees and also sharing a part of the costs) and pay-per-call plus share costs (where the call centre earns for every call resolution and in addition shares the cost with the main company). These are considered to be the best options to achieve coordination within the supply chain, by assuring the optimal level of staff and effort within the call centre (Ren & Zhou, 2008).

To sum up, the customer orientation approach is still considered the most appropriate managerial approach if the call centre’s aim is to deliver service quality and achieve customer satisfaction (Curry & Lyon, 2008; Gilmore & Moreland, 2000; Gilmore, 2001).

2.3.6. Customer satisfaction consequences

The main aim of this section is to discern the outcomes of customer satisfaction. In this sense, we distinguish between positive and negative consequences by considering the concept of customer satisfaction as the opposite of dissatisfaction. In general, customer satisfaction or dissatisfaction entails actions that may be positive or negative. However, in some situations consumers decide to take no action, even if they are not satisfied.

Returning to the concept of consumer satisfaction and dissatisfaction, some authors classify the following customer dissatisfaction outcomes: take no action, take some private action such as quit or negative word of mouth, and take some public action, such as legal action or complain register (Day & Bodur, 1978). In general, it is supported that as a consequence of an unsatisfactory encounter, consumers opt for taking no action or for taking private action such as negative word of mouth or quitting, rather than undertaking public action (Day & Bodur, 1978). Further supporting evidence about the likelihood of losing customers following a dissatisfactory experience has been gained from studies of customer service evaluation (Helms & Mayo, 2008; Levesque & McDougall, 1996).

At the other extreme, customer loyalty, customer retention and positive word of mouth are considered customer satisfaction outcomes (Yi, 1990). However, customer loyalty is not always an outcome of satisfaction in the context of call centres. Based on the existing literature, this is due to other factors, such as the *hassle factor* in the case of financial services, where switching is considered especially difficult or cumbersome (Panther & Farquhar, 2004), or the quick and effective resolution of the first incident, after complaining to the company (Bitner et al., 1990).

Figure 2.4. Customer behaviours

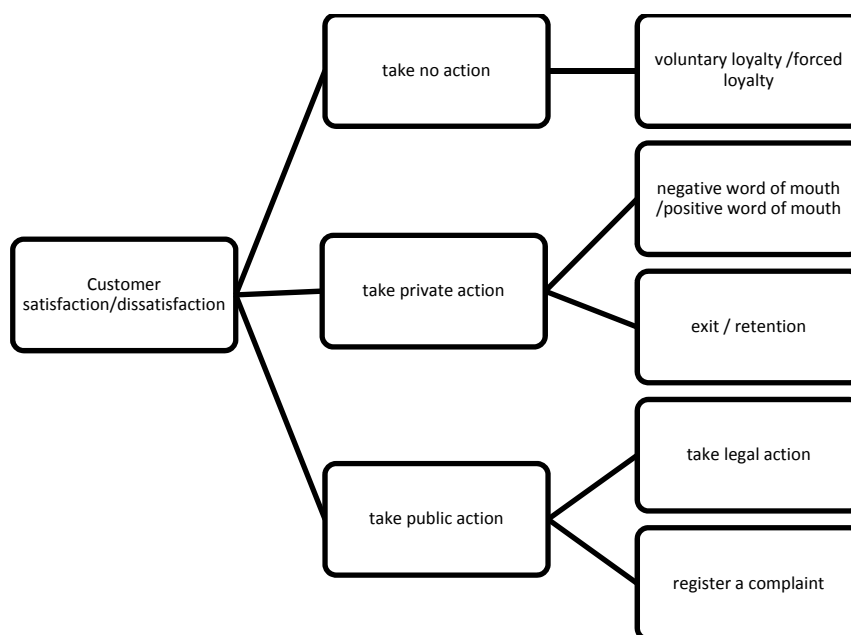


Figure 2.4 shows the different possible customer actions undertaken after experiencing a satisfactory or dissatisfactory encounter. Taking into account the contradiction in the existing literature concerning the differences between customer satisfaction and dissatisfaction concept, we can suggest that customer satisfaction and dissatisfaction outcomes are actually bipolar opposites. This may be negative and positive word of mouth, customer retention and customer quit, or voluntary loyalty versus forced loyalty.

In the context of the call centre industry, little academic research has addressed customer satisfaction or dissatisfaction outcomes. Some authors just endorse the general thinking that customer satisfaction leads to positive words of mouth, repeat purchase intention or loyalty (de Ruyter & Wetzels, 2000; Makarem, 2009; Sharma et al., 2009; Sharma, 2012). In contrast, other researchers have taken the negative perspective, by considering the customer dissatisfaction construct as a mediator between rude employee

and customer defection (Helms & Mayo, 2008) or as a mediator between perceived service quality and complaining intention (Sharma et al., 2009).

It is noteworthy that some research skips the customer satisfaction construct and connects customer behaviours directly to other business outcomes. For example, on the one hand, customer loyalty was ranked as consequence of the customer orientation approach adopted by Call centre managers (A. Dean, 2007) or employee's empathy and trust (Keiningham et al., 2006). On the other hand, customer oriented managerial strategy is suggested as the source of trust and positive word of mouth in the context of Call centres (Walsh et al., 2012). And as a final note, and surprisingly given the results orientation of call centres as an industry, we found no study that addresses the link between customer satisfaction and call centre performance.

2.3.7. Summary of determinants and consequences of customer satisfaction

Considering the research wide array of research contributions described above, in this section we present a possible model based on the reviewed literature with the aim of understanding customer satisfaction in the context of the call centre industry.

Figure 2.5. Customer satisfaction determinants and consequences in call centres

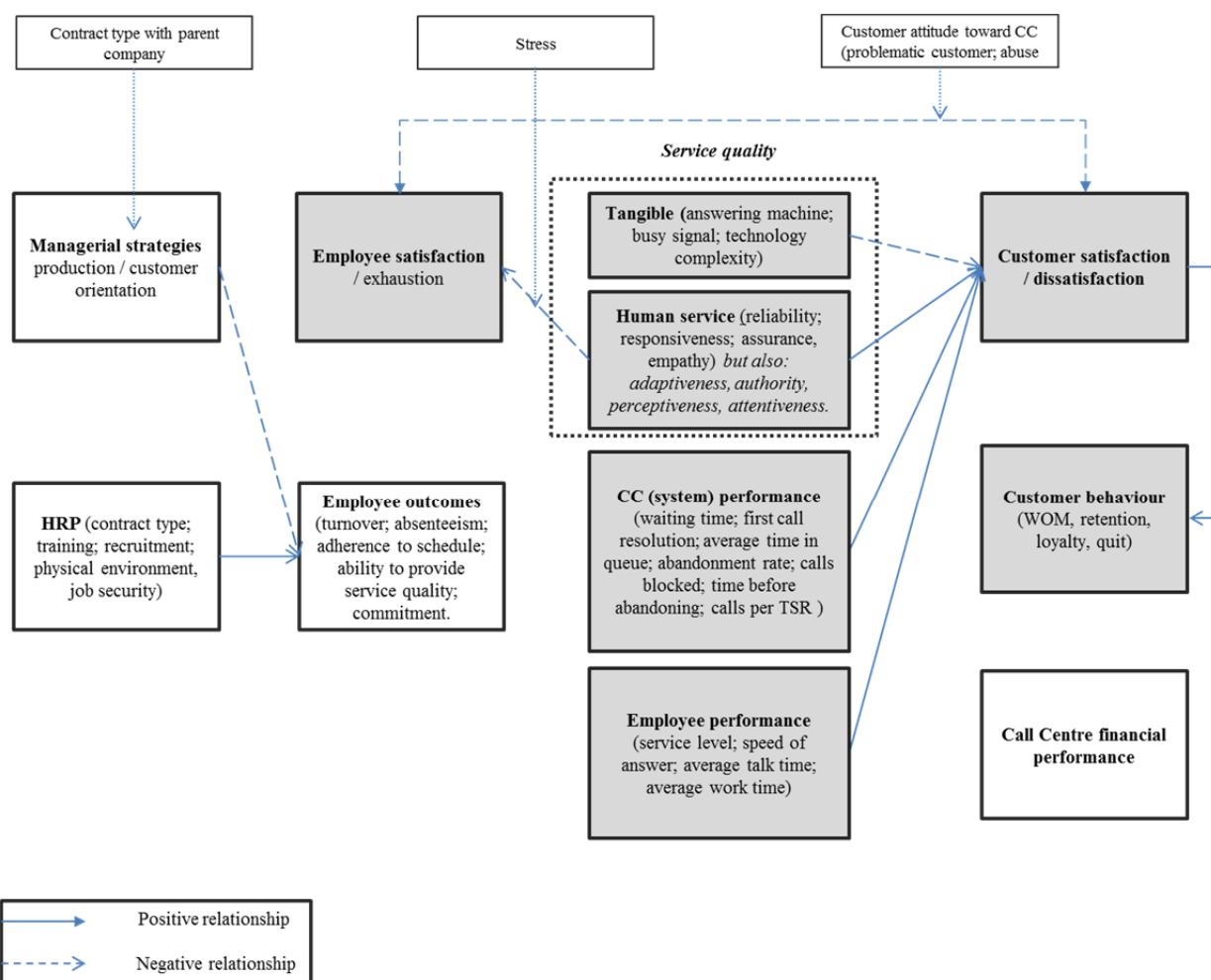


Figure 2.5 shows the groups of indicators that have been considered in the call centre literature, and how they are linked with customer satisfaction. Thus, we have a group of antecedents or determinants of customer satisfaction, and a group of outcomes or consequences.

The first group of indicators, which have received most research interest, are service quality and performance indicators. Regarding service quality, the literature suggests that only human service quality can bring about customer satisfaction, as tangible dimensions lead to customer dissatisfaction. In addition, it is noteworthy that human

SERVQUAL metrics influence negatively on employee satisfaction, being mediated by peripheral factors such as stress. Figure 2.5 also highlights how the relationship between employee satisfaction and customer satisfaction is bidirectional.

The second group of indicators are related to managerial strategies and HR policies. As we can see, from both groups of managerial strategies, the production line approach is directly but negatively related to employees' outcomes, such as absenteeism, turnover, commitment or ability to deliver service quality. On the other hand, managerial strategies in many cases, especially in the outsourced call centres, depend on the type of contract signed with the parent company. On the contrary, employees' positive outcomes originate in positive HR practices. But we may highlight that these groups of indicators seems to be isolated from the core literature review on the call centre industry.

The third group of indicators refers to performance indicators, which could be grouped into system performance and employees' performance, both of them being positively related to customer satisfaction. A small number of researchers suggest that customers are dissatisfied because of rude employees and slow service, i.e. employee performance.

And finally, the last group of indicators are related to customer satisfaction outcomes, such as Customer's positive and negative behaviour and call centre performance. But again, academic research has not yet paid attention to the relationship between customer satisfaction and call centre financial performance.

To sum up, we may conclude that customer satisfaction in call centre industry is related directly or indirectly to different groups of indicators, such as managerial strategies, HR practices, employee's behaviour, service quality and organizational financial and non-financial performance. Considering that the review of the literature points to a broad spectrum of cause and effect relationships that start with managerial strategies and HR practices and end in customer outcomes, it would be necessary to identify and analyse some classical models that integrate all these groups of variables, especially, those that predict company performance. This aim is covered in the next section.

2.4. MODELS THAT PREDICT COMPANY PERFORMANCE

In this section we outline the main managerial models that predict performance and consider variables related to Human Resource practices, service quality and customer satisfaction or loyalty. In particular, we cover Lean Technique, Balanced Scorecard, Six Sigma, and the Service-profit Chain.

2.4.1. Lean technique

Lean technique is a Japanese management philosophy originated at Toyota Production System and developed by (Krafcik, 1988). The main goal of this technique is to identify what elements add value to the customer, and try to improve on these elements while reducing other elements that are not deemed essential. There are two different approaches to lean technique. The first approach focuses on reducing waste. In other

words, it is supported that the identification and constant elimination of waste (elements that are in excess) improve quality, and at the same time it reduces cost and improves production time. The second approach focuses on reducing disproportion in the system flow, which means improving production work by identifying and constantly maintaining an efficient level throughout the production flow. These two different approaches are describing different ways of achieving the same goal of the lean technique by which value is added for the customer.

Figure 2.6. *Lean Technique* (Krafcik, 1988)

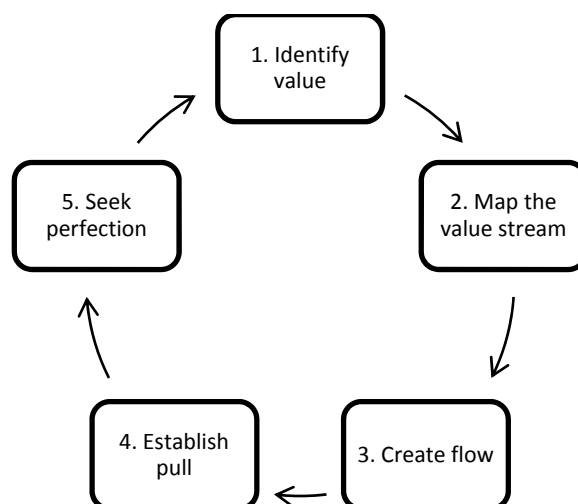


Figure 2.6 shows the five essential steps of the Lean Technique. The starting point is to properly identify what elements could be classified as “waste” or “non-value-adding” and which elements of the production process are “value adding”. It should be noted that a key point is to find an appropriate way to measure or estimate the size of these wastes, as it will help defining which of these elements could be a target for exclusion. Once the customer value is identified, the second step is to decide how this value is going to be delivered, by considering all the production process. The next step consists

in creating an efficient flow by eliminating the “waste” identified in the first step and redesigning the value stream. The fourth step consists in responding to customer pull by providing expected value. And finally, the lean process must be assessed, by linking all the steps together, which will make visible other “waste” elements or disproportions in the system flow. These will allow reviewing the process on a regular basis and ensuring that value is delivered to customer constantly.

As the lean technique has its origins in manufacturing companies, during some years, academic research used to test the model mainly within the same range of industries (Bamber & Dale, 2000; Ben Naylor, Naim, & Berry, 1999; Martinez Sanchez A, 2001; Nicholas, 1998; Storch, 1999). There has also been some criticism toward this managerial philosophy. For instance, (Williams, Haslam, & Williams, 1992) pointed out that the lean technique involves high pressure and exploitation of workers. Moreover, Lewis, (2000) states that lean manufacturing companies are limited in establishing a long-term flexibility for the company. More recently, Bhasin & Burcher, (2006) support that there are a low number of successful lean implementation examples mainly because lean technique requires implementing not only technical tools, but also requires a huge transformation in organizational culture. However, despite being designed as a manufacturing model and all the criticisms presented on its applicability, this model has been spread to a wide range of service industries, such as airline and hospitality services (Bowen & Youngdahl, 1998), public organizations (Dahlgaard-Park, 2009), insurance companies (Allway & Corbett, 2002), the health sector (Dickson, Singh, & Cheung, 2009) and even to academic institutions (Hines & Lethbridge, 2008). In the context of the Call centre industry, the model has been considered by (Piercy & Rich, 2009b). The

study was carried out through a case study at three British call centres from the financial service industry. The main problems identified at all centres were related to customer service and operational costs such as increase call s volume, increase handling call time, high level of absenteeism, staff turnover, decrease in customer satisfaction, increase in waiting time, and abandoned call s because of the routing system. The managerial approach was based on production line approach focusing on quantitative metrics such as call s answered within target time, length to answer a call, sales, etc. The first step consisted of identifying customer value, which was call handled by a single person and first call resolution. The next step was to switch from production line approach to lean approach. In this sense, the call centres were expected to take the following actions: create a single pool of workers and so eliminating the routing system, training the staff and redesigning performance measurements. The improvement of job flexibility and staff involvement reduced employee absenteeism. In addition, focusing on first call resolution also benefited the company, as it reduced considerably the number of call s to be answered, and so the costs. To conclude, the study confirms the applicability of the Lean Technique to the context of the call centre and proves the increase in employee productivity as well as in customer satisfaction.

2.4.2. Balanced scorecard

Balanced scorecard is a managerial framework designed by (Kaplan & Norton, 1992, 1998) that complements the traditional financial performance indicators with non-traditional performance indicators such as performance for the customer, internal process and learning and growth. The original thinking of this managerial tool was to

identify a set of non-financial metrics and balance them with already existent financial metrics. To that effect, the Balanced Scorecard model gathers organizational performance around four perspectives: financial, customer, internal process and improvement, and link accordingly each of them to a particular function: accounting, marketing, business process, and human resources (Wu, Tzeng, & Chen, 2009).

Figure 2.7 Balanced scorecards (Kaplan & Norton, 1992, 1998)

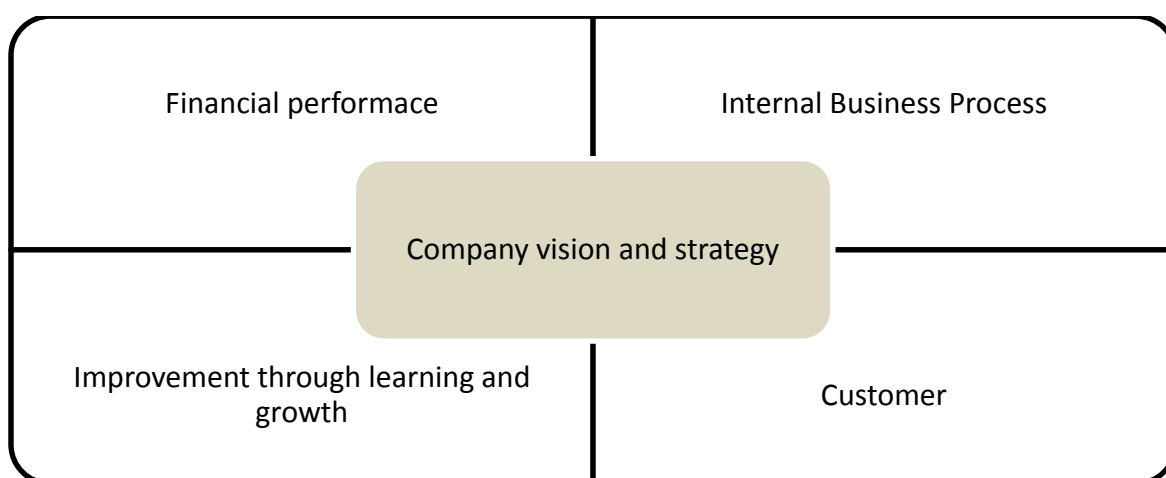


Figure 2.7 shows the original model of the balanced scorecard, including the main elements that should be measured as performance indicators and integrated into the business management process. In order to achieve the accomplishment of the organization's strategic objectives, the model suggests four perspectives that will allow identifying what measurements to use.

Considering the company's vision, the first step is to establish strategic objectives and link the company's vision to individual performance. At this point managers may identify two groups of indicators: related to financial performance and related to the

customer. The first group of metrics refers to financial performance, which was kept from traditional managerial models, and includes metrics such as sales, return on investment and other financial variables. The second group refers to customer, more specifically how the customer sees the company, and comprises metrics such as ranking by customer, service excellence and other variables that could influence customer outcome.

The next step requires designing the business map and highlighting what elements managers should focus on in order to accomplish the company's strategy. Therefore, the third group of indicators refers to operational processes, mainly including metrics such as design of new product or service, reducing costs and other operational variables. And finally, the last step consists in assessing achieved performance, learning from the results and adjusting the strategy, which entails identifying the main gaps of the business process or market opportunities in order to improve continuously, innovate and create sustainable value. At this point, managers may consider metrics such as: employee productivity, training, and alignment of personal goals.

To sum up, the model attempts not only to provide performance measurements, but also to help managers identify what elements should be improved in order to obtain better performance, and how to keep alignment between all this elements and the company vision and strategy.

This model has evolved and has been transformed over time. In this sense, the latest redesigned Balanced scorecard framework includes a new step, which consists in

defining a “destination statement” before selecting performance metrics (Lawrie & Cobbold, 2004). In other words, managers are supposed to define a successful end or “destination statement”, and then define some strategic objective that would lead to this statement, accordingly target corresponding variables from each perspective, and finally define the cause-effect relationships between these elements. This new perspective gives more importance to strategic objectives, and provides a better rationalization of selected metrics.

Considered as a successful managerial framework, the Balanced Scorecard has been given ample recognition among the academic and professional literature. In fact, this model has been widely considered in many industries such as manufacturing (Alsyof, 2006; Hoque & James, 2000; Malina & Selto, 2001), banking industry (Davis & Albright, 2004; Kim & Davidson, 2004; Wu et al., 2009), health care (Aidemark, 2001; Kocakulâh & Austill, 2007; Zelman, Pink, & Matthias, 2003), information technology (Milis & Mercken, 2004), hotel industry (Banker, Potter, & Srinivasan, 2000) and university (Lawrence & Sharma, 2002). Beyond the conventional testing of the model applicability to different contexts and industries, some authors intended to fashion additional patterns. For instance, based on a Balanced Scorecard philosophy (Kaplan & Norton, 1992) and fuzzy theory (Zadeh, 1965), Wu et al., (2009) proposed the Fuzzy Multiple Criteria on Decision Making (FMCDM), an evaluation model of banking performance. Moreover, Hughes & Pate, (2013) developed a multiple perspective assessment tool for teachers performance named Teaching Balanced Scorecard, by

connecting the Balanced Scorecard philosophy to conventional student ranking assessment (Cashin, 1990).

In the context of the call centre, the Balanced Scorecard framework has been considered by some authors as a performance assessment tool. For example, Halliden & Monks, (2005) employed BSC in order to assess performance in call centre while implementing a strategic change related to employee centred management. In addition, Robinson & Morley, (2006) attempted to link manager's responsibilities and goals to performance indicators considered in managing the call centre. The main findings of his study are that call centre focuses mainly on financial performance indicators, which are not aligned to the organizational strategy. In this sense, they suggest the Balanced Scorecard approach in order to ensure a balance between financial and non-financial outcomes.

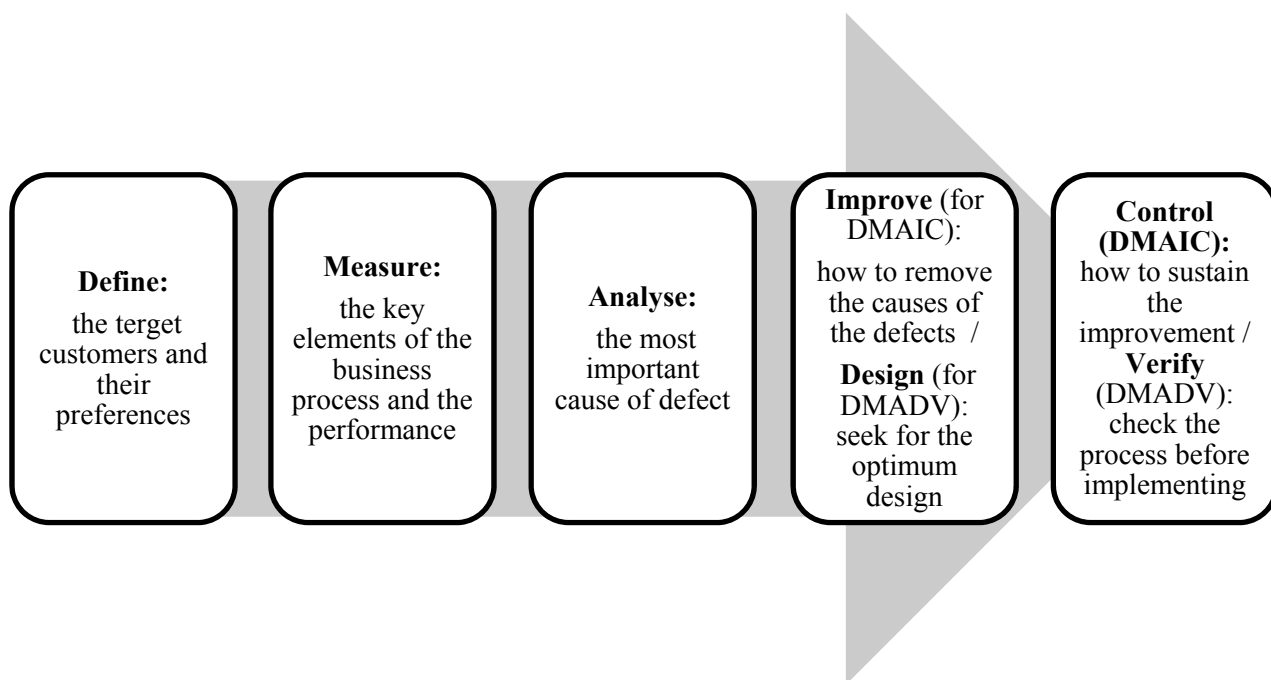
2.4.3. Six Sigma

Six sigma is a managerial framework developed in 1986 by Bill Smith (engineer at Motorola), and later implemented by Jack Welch at General Electrics (Henderson & Evans, 2000; Welch, Welch, Primus, & Winkelmann, 2005). The main goal of this technique is to identify the most important causes of defect in a business process and try to reduce or eliminate them (Fontenot, 1994; Paul, 1999). The term of Six Sigma comes from the statistical concept "sigma σ ". In fact, the author intends to replicate the statistical process of standard deviation into business processes. In other words, the model attempts to explain how a specified business process deviates from perfection, by

associating it with the statistical process of six standard deviations between the process mean and the nearest specification limit. Therefore, Six Sigma is a systematic technique that allows to reduce customer defection rate and achieve perfection in organizations processes and products (Brady & Allen, 2006). This could be achieved through two sub-methods: improvement system for existing business processes (named DMAIC project); and improvement for new business processes (named DMADV project). Both projects have five phases.

Figure 2.8 reflects the five phases of the Six Sigma process. As shown, the first three phases are common for both Six Sigma methodologies (DMAIC and DMADV): first of all, they define what the target customers are and identify their needs; secondly, they measure the process and the performance; thirdly they look for cause-effect relationships and analyse them. The last two phases of the Six Sigma philosophy present some differences between the DMAIC system and the DMADV system. In the case of an existing business process (DMAIC), the Six Sigma method suggests to look for alternatives in order to eliminate defects, and then look for tools in order to sustain the improvement. Instead, in the case of the DMADV system, the model suggests to seek for the optimum design of the process, and then check the whole process before implementing it.

Figure 2.8. Six Sigma frameworks (Henderson & Evans, 2000)



Although the Six Sigma model was initially developed by manufacturing practitioners, its philosophy has received widespread recognition in the academic and management literature over the last two decades. On the one hand, many organizations have adopted this perspective and become “Six Sigma companies” (Brady & Allen, 2006). On the other hand, the academic literature has contributed by extending and linking the model to theory. For instance, it has developed success factors for the Six Sigma implementation, such as management commitment, team training, organizational infrastructure and customer focus (Coronado & Antony, 2002; Hahn, Doganaksoy, & Stanard, 2001; Henderson & Evans, 2000; Hoerl, 2001; Lee, 2002). In addition, some authors have extended the model by connecting it to business performance (Bisgaard & Freiesleben, 2000; Goh, Low, Tsui, & Xie, 2003; Linderman & Schroeder, 2003). Originally, Six Sigma was tested mainly in manufacturing companies (Henderson & Evans, 2000), under the assumption that application to service process is limited

because of the intangible dimensions involved. However, this thinking was surpassed, and the model has been spread to service industries such as banking, health care, education, etc. (Chakrabarty & Tan, 2006; Hensley & Dobie, 2005; Rucker, 2000).

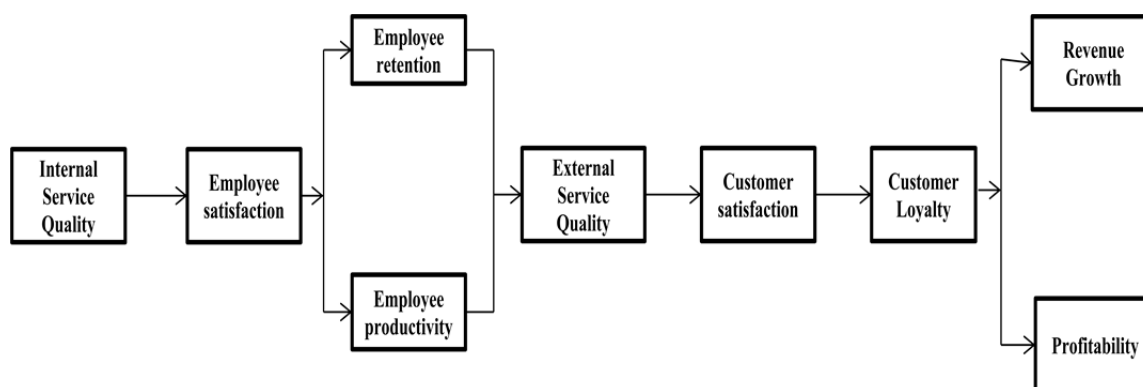
In the context of call centres, the applicability of the Six Sigma was deemed as a failure by some authors (Piercy & Rich, 2009b). However, there are also evidences of successful implementation presented at two call centres chosen from a large organization (McAdam, Davies, Keogh, & Finnegan, 2009). The first case analysed the implementation of operational measures of Six Sigma, such as abandoned call s, sales achieved, call handling time and call s answered within target time. The second case started from the first phase “define” and considered the key drivers of customer satisfaction, such as first call resolution, no transfer, on time. Comparing the results of the two cases, the study concludes that implementation of only operational metrics leads to lower organizational performance, while the full application of the Six Sigma model endorsed improvement in customer experience, and in turn in organizational performance. To sum up, we may confirm the applicability of the Six Sigma model in the context of Call centres. In addition, we may highlight that an extension of the model, more specifically Lean Six Sigma, has also been tested and confirmed in the call centre context (Laureani, Antony, & Douglas, 2010).

2.4.4. Service profit chain

The service-profit chain model (SPC) (Heskett, Sasser, & Schlesinger, 1997; Heskett & Schlesinger, 1994) proposes a number of direct relationships spread across the business

process in order to explain firm performance. In essence, the model suggests that sound HR practices will lead to satisfied employees, which in turn leads to satisfied customers and this will ultimately stimulate growth and profitability, as illustrated in Figure 2.9. Beyond its obvious intuitive appeal and face value, the service profit chain makes two main contributions to service management: Firstly, the model draws attention to the intermediate steps that allow us to consider the link between HR practices and company performance. Secondly, the SPC highlights important links in service management by considering both HR (employee) and Marketing (customer) elements, which are traditionally dealt with separately by different literatures.

Figure 2.9 Service Profit Chain (Heskett & Schlesinger, 1994)



After two decades of the service-profit chain (Heskett & Schlesinger, 1994), the model has been widely considered in various guises in a broad range of industries, contexts and countries (H Evanschitzky, Groening, Mittal, & Wunderlich, 2011; Maranto & Reynoso, 2003; R. W. Y. Yee, Yeung, & Cheng, 2011). During this time, it has achieved ample recognition in the academic and professional literature, although the

empirical evidence has not always confirmed the entire model (Pritchard & Silvestro, 2005; Silvestro & Cross, 2000). Indeed, most contributions tend to only contrast specific links in the chain. Sometimes the focus is on the employee side, mainly within the HRM literature. Other studies focus on the customer side, mainly within the marketing literature (Theoharakis, Sajtos, & Hooley, 2009). There is also research in the service management and operations literatures (and to a lesser extent in the marketing literature) that examines both employees and customers in the SPC (Homburg, Wieseke, & Hoyer, 2009; Papazissimou & Georgopoulos, 2009; Silvestro, 2002; R. W. Y. Yee, Yeung, & Cheng, 2008). A number of extensions to the original model have been proposed in order to include other relevant constructs and to better explain the causal links that determine firm performance. These include closeness and frequency of employee-customer interaction, degree of market competitiveness (R. Yee, Yeung, Cheng, & Lai, 2009), service climate (Hong, Liao, Hu, & Jiang, 2013), strength of customer relationships and customer responsiveness (Theoharakis et al., 2009; R. Yee et al., 2009).

Despite the proliferation of SPC studies, most are carried out in traditional service industries characterised by high-contact, face-to-face interactions between employees and consumers (Papazissimou & Georgopoulos, 2009; Silvestro, 2002; R. W. Y. Yee et al., 2008, 2011). Therefore, we suggest that further research on the SPC model should focus on testing the limits and boundaries of its explicative capacity, rather than simply replicating the model in further examples of traditional service industries. (Wangenheim, Evanschitzky, & Wunderlich, 2007) are among the few who do this when they consider whether the relationships espoused by the service-profit chain also

apply in the case of different employee groups including those who do not directly interact with customers. In the extant literature, this model has not previously been applied to the call centre sector.

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CHAPTER 3

RESEARCH QUESTION AND A FIRST ATTEMPT TO TESTING THE SPC MODEL

3.0. INTRODUCTION

3.1. RESEARCH QUESTION

3.1.1. Contribution

3.2. ELEMENTS OF THE SERVICE PROFIT CHAIN MODEL IN THE CALL CENTRE INDUSTRY

3.2.1. Effects of HR practices on employee outcomes in call centres

3.2.2. Effects of employee outcomes on employee productivity in call centres

3.2.3. Effects of employee productivity on customer satisfaction in call centres

3.2.4. Effects of customer satisfaction on performance in call centres

3.3. A FIRST (UNSUCCESSFUL) ATTEMPT TO TESTING THE SPC MODEL

3.4. REFERENCES

CHAPTER 3. RESEARCH QUESTION AND A FIRST ATTEMPT TO TESTING THE SPC MODEL

3.0. INTRODUCTION

In this chapter we present the research question and the main contribution of the study. Next, as the main focus is to test the service profit chain in the call centre industry, we carry out a short literature review related to the main elements and relationships of the model in this specific context. Finally, we shortly explain the first (unsuccessful) attempt to testing the service profit chain model, from which we derived three possible hypotheses. Please note that we do not explain in detail the analytical procedure and the data collection in this chapter, as it is going to be described afterwards for each of the proposed studies. At the end of the chapter, we state hypothesis that lead us to consider two different studies, presented later in the chapter 4 and 5.

3.1. RESEARCH QUESTION

Since, as stated in the literature review, there are no previous studies that examine the broad spectrum of causal relationships proposed by the service profit chain in the specific context of call centre services; this research project focuses precisely on addressing this research gap by posing the following research question:

Does the Service–Profit Chain model apply in the Call Centre Sector?

3.1.1. Contribution

The contribution of this study does not just represent an empirical application of existing theory to a new sector. The call centre sector is a specific context, where the interaction between customers and companies take place in a completely distinct environment and encompass a totally different experience for both customers and employees, represents a context whereby the tenets of the Service-profit chain model may be challenged and its boundaries expanded. Therefore, by applying the Service-Profit Chain (SPC) in the context of the call centre industry, we contribute by extending the explanatory power of the SPC model in a context that embodies two characteristics that have not been considered to date:

Firstly, we examine a remote service encounter, usually over the telephone. The lack of face-to-face interaction in the context of telephone services represents a change in the nature of the service encounter, when compared to traditional services. In call centres both the factual and emotional communication takes place remotely, via voice-only communication.

Secondly, and perhaps more importantly, by basing the study on the call centre industry, we also consider a sector which is often characterised by a low-cost approach to human resource management (Fernie and Metcalf, 1998; Taylor et al., 2002; Wallace et al., 2000). A basic premise of the service-profit chain is that Human Resource (HR) practices will be developed in a manner that encourages positive outcomes such as employee satisfaction and well-being, often referred to as high-commitment working practices (Guthrie, 2001; Wood and de

Menezes, 1998). Thus, the basis of the model is to invest in human capital in order to ultimately improve company performance (Tsui and Pearce, 1997). However, the business logic which underlies the call centre industry is based on cost-cutting, including the minimisation of personnel costs (Anton, 1997; Piercy and Rich, 2009a). Nevertheless, some research suggests that even within these circumstances that are characteristic of call centres, improving HR practices and job design can lead to better outcomes for employees and company performance (Batt and Colvin S., 2011; Batt, 2002; Kinnie et al., 2000).

In light of these two differentiating elements, this study aims to broaden the explicative capacity of the service-profit chain by examining it in the context of the call centre industry.

3.2. ELEMENTS OF THE SERVICE PROFIT CHAIN MODEL IN THE CALL CENTRE INDUSTRY

Although to examine all of the relationships in the model is beyond the scope of this study, we will examine relationships across the model, including elements from the beginning, middle and end of the service profit chain. Even though the literature has not attempted to test the whole chain of relationships in the call centre sector, it does present us with some evidence of specific links in the SPC. The focus of these papers is not on the service profit chain as a whole, but on more narrowly defined relationships (e.g. how certain HR practices impact upon agent satisfaction, absenteeism, turnover, etc.). Accordingly, in this section, we review the core organisational level links in the service profit chain that are tested in our study and for which there is evidence in the call centre literature.

3.2.1. Effects of HR practices on employee outcomes in call centres

(Heskett and Schlesinger, 1994) propose that the trigger that sets the service profit chain in motion is the company's choice of HR practices and job design. They conceptualize this in their model as Internal Service Quality. In the call centre literature this is also referred to as job quality and includes HR practices, such as training, compensation and job stability (Gorjup et al., 2009; Valverde et al., 2007) and aspects of job design such as job discretion, autonomy and teamwork (Holman, 2013). These choices will in turn influence the extent to which employees are satisfied. The call centre literature has examined the specific link between HR practices and employee satisfaction. Both Connell et al., (2009) and Frenkel et al., (1998) found that the design of call centre jobs that facilitates employee empowerment leads to job satisfaction. On the contrary, task oriented job design leads to job dissatisfaction (Connell et al., 2009). Nevertheless, it has been argued that the outcomes commonly pursued by HR managers in call centres do not necessarily prioritise employee satisfaction (Wallace et al., 2000). Hence, the call centre literature has focused more on examining other employee outcomes besides satisfaction. This includes absenteeism, burnout, labour relations, turnover, etc.

Turnover is frequently considered in the literature as it is traditionally high in the call centre industry (Gilmore, 2001; Snow, 2005). It is widely believed that a significant element of turnover in call centres is essentially due to the arduous nature of call centre work (Bain et al., 2002; Rod and Ashill, 2013) and job burnout (Choi, 2012). But the use of high involvement working practices such as employee discretion and group collaboration has been linked to lower turnover rates (Batt and Colvin S., 2011). In contrast to conventional wisdom, some believe that high turnover is so intrinsic to call centre work that efforts to reduce it will prove

fruitless (Wallace et al., 2000), while others have failed to establish a link between job design and employee turnover or absenteeism in call centres (Schalk and van Rijckevorsel, 2007). Nevertheless, (Piercy and Rich, 2009b) found that training and job design increase employee motivation and decrease employee absenteeism. Furthermore, there are a number of studies that simultaneously examine the circumstances surrounding absenteeism and turnover. In this sense, (Celik and Oz, 2011) identified links with the perceptions of quality of working life. (Taylor et al., 2003) and (Jaaron and Backhouse, 2011) found that improvements in job design were most effective in remedying turnover and absenteeism in call centres; meanwhile (Choi, 2012) suggest that in the context of the Call Centre we may consider different dimensions of job burnout, as monetary reward can reduce turnover under depersonalization, but supervisor support will increase turnover under the same circumstances.

3.2.2. Effects of employee outcomes on employee productivity in call centres

The SPC model maintains that satisfied employees will be more productive (Heskett and Schlesinger, 1994). However, there is little literature that addresses the relationship between employee outcomes (such as job satisfaction, turnover, absenteeism, etc.) and employee productivity in the call centre industry. For example, (Tuten and Neidermeyer, 2004) found a positive relationship between job satisfaction and employee performance. But most of the call centre literature tends to skip this specific relationship by directly linking HR practices and job design with employee performance (Castilla, 2005). For example, (Litte and Dean, 2006) established a direct link between HR practices and service capability, while (Malhotra and Mukherjee, 2004) found a link between job satisfaction and service quality. A study by (Tjosvold et al., 2012) further linked less employee turnover to more employee productivity when an aspect of job design (reviewed here in the previous section), teamwork, was present.

However, in many other studies there is much overlapping and amalgamation of concepts and relationships in this intermediate section of the SPC in the literature.

3.2.3. Effects of employee productivity on customer satisfaction in call centres

According to (Heskett and Schlesinger, 1994) employee productivity and retention lead to service quality and subsequently to customer satisfaction. This is the point in the service profit chain where employee elements meet customer elements, thus where HRM interfaces with Marketing. Most research on this interface has focused on the degree of customer oriented behaviours enacted by employees and their effects on customer outcomes such as satisfaction, perceived service quality, loyalty or commitment (Dean, 2007; Gilmore and Moreland, 2000). Although these links in the model (productive and customer oriented employees achieving better customer outcomes) seem high on face value, they present researchers with a number of difficulties. Indeed, some studies skip over this step in the service profit chain model. One of the difficulties is that many studies do not distinguish between Service Quality and Customer Satisfaction at an empirical level. For example, some studies employ measures of service quality when studying customer satisfaction. This lack of distinction is also found in firms' practices. Indeed, Jaiswal, (2008) found a similar lack of differentiation in call centre practice.

There are two further problems associated with studying this part of the chain in the context of call centres. Firstly, part of assessing the quality of service has to do with tangible aspects of the services (such as physical environment). This cannot be measured in call centres as by their very nature they offer remote services. Secondly, there are two very distinct streams of thought on the measurement of employee productivity and service quality. One stream uses

hard operational measures based on Key Performance Indicators (KPI), such as first call resolution, abandonment rate, percentage of calls blocked, average speed of answer and calls handled by one person (Abdullateef et al., 2011; Cheong et al., 2008; Feinberg et al., 2000; Piercy and Rich, 2009b). The other stream considers soft measures such as employee's responsiveness, attentiveness, empathy, communication, competence, correctness and quality of given information (Bharadwaj and Roggeveen, 2008; Ganguli and Sanjit, 2010; Garcia et al., 2012; Keiningham et al., 2006; Palson and Seidlitz, 2000; Upal and Dhaka, 2008). (Jaiswal, 2008) found that service quality based on hard operational measures does not result in customer satisfaction. Yet he notes that while customers seek better performance through softer measures, call centre management often ignore these dimensions since they are pressured to achieve the best hard results of employee productivity. He also notes the fact that call centres rarely collect nuanced data on the satisfaction of their customers (Jaiswal, 2008).

3.2.4. Effects of customer satisfaction on performance in call centres

The final stages of the SPC model links customer satisfaction to company performance, mediated by customer loyalty (Heskett and Schlesinger, 1994). This reflects a basic and fundamental tenet of marketing, that has been demonstrated empirically, that a marketing orientation leads to customer satisfaction, which subsequently leads to company performance (Williams and Naumann, 2011). Homburg et al., (2011) observed an inverted U shape relationship between customer satisfaction and performance, suggesting that there is an optimum level of customer orientation beyond which increased satisfaction will lead to decreased performance. Nevertheless, this relationship, whether linear or quadratic, has received little attention in the call centre literature. This may be due to what Anton, (1997)

points out as the inherent tension in the call centre industry between maintaining customer satisfaction while cutting costs.

Although the SPC model has not been previously considered in the context of the call centre industry, in this section we have reviewed how the main individual links in the chain have been addressed in the call centre literature. It is clear that some of the links have received considerably more attention than others. The aim of this study is therefore to consider the applicability of the broad span of the SPC model in a context characterized by remote services and cost cutting business rationales embodied in the call centre industry, and to do so across the model by examining the principal links in the chain.

3.3. A FIRST (UNSUCCESSFUL) ATTEMPT TO TESTING THE SPC MODEL

In order to test the applicability of the Service-profit chain in the call centre industry, we turned to estimate the relationships explained above with a sample of secondary data of Spanish call centres, obtained from the Spanish team of the Global Call Centre Research Project (Holman et al., 2007). The sample was made up of data for 109 call centres, and the relationships were tested employing Structural Equation Modelling (SEM) by using EQS software (Bentler, 1989).

However, the goodness of fit for the resulting model did not reach an acceptable level. The p-value was 0.0000 and all fit indices were between 0.2 and 0.3. At this point, we decided to investigate the reason for these inconclusive results.

At this point, our research pathway changes from a confirmatory study to an exploratory one. According to (Jöreskog, 1993), the general strategic framework for testing structural equation models distinguishes among three scenarios: strictly confirmatory analysis, alternative models, and modelling generators. The strictly confirmatory analysis refers to situations when the researcher confirms or rejects a hypothesis, but no further modifications are made. The alternative models approach refers to producing and testing several alternative models. Finally, the modelling generator scenario is when the researcher rejects a theoretical model on the basis of poor fit and proceeds to an exploratory study by modifying and re-estimating the original model. Given the original results, we needed to turn to these exploratory approaches.

In this situation, the primary focus of attention is to find the cause of misfit in the model, which could be either theory or data driven (Jöreskog, 1993). In this sense, we inferred that these inconclusive results could be due to three reasons, for each of which we posed an alternative reason in the form of explanatory hypotheses:

H1: The sample size is too small (n=109 cases).

H2: The analytical technique is not adequate.

H3: The SPC model is not applicable in the Call Centre industry.

Before concluding that our first attempt to test the SPC in call centres failed because of H3 (the SPC does not work in call centres), we should be able to reject H1 and H2. In this sense, we tried to check and to solve the problems related to H1 and H2 by conducting two fully-fledged studies that are summarised below:

- In order to confirm or reject H1 (the sample size was too small), we should test the model with a larger database. In this sense, we proceeded to test the model with the whole database of the Global Call Centre Project, considering 2477 cases from 17 countries. The methodology, measures, outputs and contribution of this study are explained in Chapter 4.
- In order to confirm or reject H2 (the analytical technique is not adequate), we should test the model by deploying a different technique. In this sense, we may consider that the unsuitability of the first technique could be due to two reasons. Firstly because EQS software is particularly apt for strictly confirmatory analysis. Secondly, EQS software is a method considered more adequate for large sample sizes. In order to address these potential problems, we returned to the Spanish dataset and used PLS Graph to analyse the data instead of full structural equations with EQS. As the Spanish database contained more available variables, we move from theory testing to an exploratory study, and identified a different model that fits with the reality of the management of a Call Centre. The reasoning, new variables and relationships considered and results of this study are explained in Chapter 5.

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CHAPTER 4

STUDY 1: LARGE SAMPLE

CONFIRMATORY MODELLING

4.0. INTRODUCTION

4.1. DATA COLLECTION AND SAMPLE

4.2. MEASURES

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CHAPTER 4. STUDY 1: LARGE SAMPLE CONFIRMATORY MODELLING

4.0. INTRODUCTION

In order to address the possibility that our initial study that explore the applicability of the service-profit chain model in the call centre industry , did not show any conclusive results because of insufficient sample size (H1), in this chapter we carry out a study of the broad spectrum of SPC relationships with a large international database of call centres. The chapter first addresses the survey method and sample. Secondly, it describes the indicators employed in order to measure each item and reproduce the full wording of the survey questions. Next, it explains the analytical procedure employed and the results of the measurement and structural model. Finally, the chapter highlights the main conclusions, including the methodological and managerial contribution of the study.

4.1. DATA COLLECTION AND SAMPLE

This study employs, with permission, secondary data that was gathered in the Global Call Centre Research Project (GCCRP) survey of call centre management (Holman et al., 2007). The GCCR project was carried out in the following 17 countries: Austria, Brazil, Canada, Denmark, France, Germany, India, Ireland, Israel, the Netherlands,

Poland, South Africa, South Korea, Spain, Sweden, UK and USA. The dataset incorporates in-house and outsourced, inbound and outbound call centres from different industries, such as telecommunication, banking, insurance, transport, public administration, etc. Table 4.1 describes the data collection methods and the overall sample obtained. The data collection was carried out by independent researchers from a designated university in each country. The questionnaire was designed in English and translated to the native language of each country. Then the reverse translation was carried out by a third party in order to ensure accuracy and objectivity (Brewster and Hegewisch, 1994; Brislin et al., 1973; Cascio, 2012).

Table 4.1. Global Call Centre survey methods and sample

Extracted from “The Global Call Centre Report: International perspective on Management and Employment” (Holman et al., 2007, p. 48-49).

| Country | Estimated No. Call Centres (2005) | Estimated No. CC Agents (2005) | Source of CC database | No. of CCs in database | Sample size | Sampling Strategy | Survey Administration | Start & End Date | No. of Completed Surveys | Response Rate |
|---------|-----------------------------------|--------------------------------|--|------------------------|-------------|---|-----------------------------------|---------------------|--------------------------|---------------|
| Austria | 500 | 40,000 | Austrian Call Centre Forum, FORBA database, Internet | 165 | 165 | All CCs in database | Telephone | 05-07, 2005 | 96 | 58% |
| Brazil | 1,000 | 615,000 | Employers Association | 250 | 250 | All CCs in database | Telephone, email, onsite, | 05-09, 2005 | 144 | 45% |
| Canada | 13,424 | 512,867 | Employers Association | 500 | 500 | All CCs in database | Telephone | 02/2005 – 05/2006 | 387 | 77% |
| Denmark | 350 | 23,000 | Employers Association, phone book, Internet | 226 | 226 | All CCs in database | Personal contact w/email response | 06-09, 2004 | 118 | 65% |
| France | 3,100 | 200,000 | Employers Association, France telecom survey | 900 | 340 | Stratified random by sector, outsourced | Telephone | 05-08, 2004 | 210 | 60% |
| Germany | 3,000 | 330,000 | Previous databases, Regional Development Agency lists | 2,800 | 300 | Random, plus added sites | Telephone | 09-10, 2004 | 155 | 54% |
| India | N/A | 316,000 | NAASCOM, Internet, field research | 100 | 75 | Non-random in call centre cities | Onsite | 07, 2003 — 08, 2004 | 63 | N/A |
| Ireland | 400 | 19,500 | Previous list, telephone directory, Internet, recruitment agencies | 287 | 188 | All with confirmed contact info. | Mail | 10-12, 2004 | 43 | 23% |
| Israel | 500 | 11,000 | Telemarketing Association, phone books, Internet, CC mgr forums | 80 | 80 | All CCs in database | Onsite | 08-10, 2004 | 80 | 100% |

| Country | Estimated No. Call centres (2005) | Estimated No. CC Agents (2005) | Source of CC database | No. of CCs in database | Sample size | Sampling Strategy | Survey Administration | Start & End Date | No. of Completed Surveys | Response Rate |
|--------------|-----------------------------------|--------------------------------|--|------------------------|-------------|---|----------------------------------|---------------------|--------------------------|---------------|
| Netherlands | 1,500 | 90,000 | Employers Association, related lists | 800 | 800 | All CCs in database | Mail, internet | 04-08, 2004 | 118 | 15% |
| Poland | 300 | 8,700 | Federal Trade Register | 112 | 112 | All CCs in database | Telephone | 10-11, 2004 | 75 | 67% |
| South Africa | 1,200 | 100,000 | Multiple industry, Internet sources | 1,200 | 326 | Non-random in call centre cities | Telephone, email, onsite | 11, 2002 - 06, 2004 | 64 | N/A |
| South Korea | 2,500 | 330,000 | Telemarketing Association, S. Korea Mgmt. Association, Internet, CC mgr. forum | 250 | 250 | All with confirmed contact info. | Onsite, email, mail | 06-09.2004 | 121 | 48% |
| Spain | 1,500 | 64,000 | Telemarketing Association, Official Registry of Companies in Spain (SABI), Internet, CC mgr forums | 224 | 224 | All companies in database | Onsite, telephone, postal, email | 05, 2005 – 01, 2006 | 109 | 49% |
| Sweden | 1,200 | 100,000 | Employers Association, Benchmarking Company | 642 | 347 | All companies in database (outsourcing) | Mail, w/ telephone, email, fax | 02-05, 2004 | 161 | 46% |
| UK | 3,500 | 800,000 | Employers Association | 500 | 418 | All contactable companies | Telephone, w/mail follow-up | 03-10, 2004 | 167 | 40% |
| US | 60,000 | 4,000,000 | Dun & Bradstreet, Call Centre Magazine | 2,000 | 682 | Stratified random, by size, sector | Telephone | 02-09, 2003 | 464 | 68% |

The unit of observation for this study is the individual call centre as a business unit. As the main objective of this study is to test the service-profit chain model, it involves variables at different levels: organizational level in terms of human resource practices and organizational performance, employee level in terms of employee satisfaction and productivity, and customer level in terms of customer satisfaction and loyalty. Employee-based surveys usually explain employees' perceptions about working practices. Similarly, customer-based surveys usually explain customer perceptions about service quality and their future intentions toward the company. However these two kinds of surveys were not appropriate for our study. Instead, a practical way to deal with a complex model that involves metrics at different levels is the use of manager-based surveys. This is appropriate for analysing the service-profit chain, since a business unit covers the whole spectrum from management practices to performance and results. The survey was administered to the call centre human resource manager or to the call centre manager when there was no HR manager. We carried out t-tests for differences in means between these two types of respondents for all study variables to see if HRM and call centre managers provided different answers. In the few instances where the mean was different, we calculated the eta squared (Cohen, 1988), which showed just small effects (all below 0.01) for all variables.

Because some of the questions were slightly different across countries and could not be used simultaneously, and also because of missing data, we cleaned the database and only used responses from complete cases. This led us to eliminate three countries completely, which are: Israel, Netherland and Spain, because they did not include measures for one or more of the variables used in the study. So, the final sample

includes 14 countries for which we had full data on the relevant variables for this study: the United States, the United Kingdom, Canada, Ireland, Austria, Denmark, France, Germany, Sweden, Brazil, India, Poland, South Africa, and South Korea. The sample is made up of the 937 call centres that provided answers to all questions related to the SPC variables. This includes both in-house (69.1%) and outsourced (30.9%) call centres covering a wide range of service industries including financial services, telecommunications, tourism, commodities, etc.

4.2. MEASURES

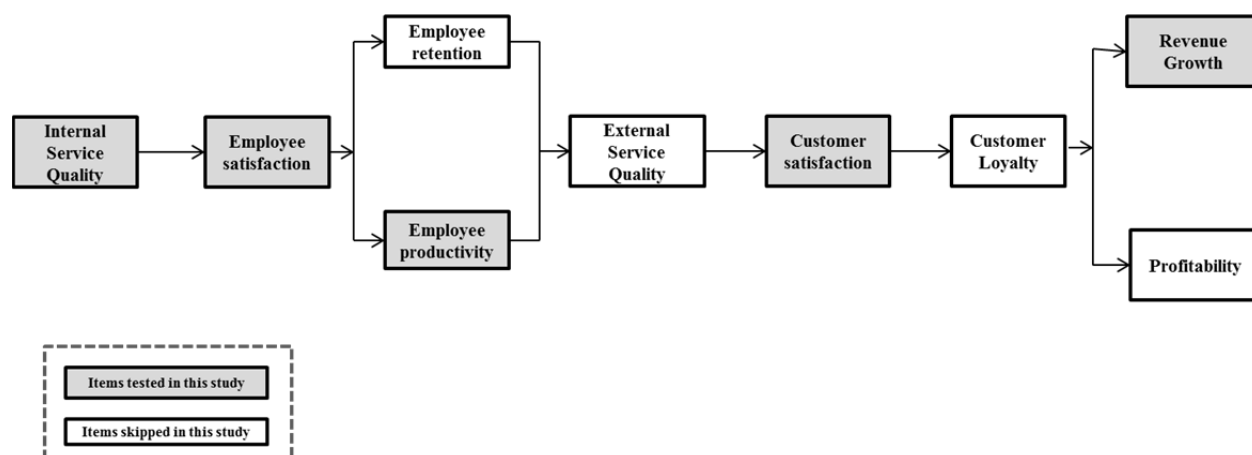
As mentioned earlier, our main objective is to consider the applicability of the service-profit chain model in a context characterized by remote services and a cost-cutting business rationale embodied in the call Centre industry. Although the SPC model has been previously considered in a wide range of industries and contexts, all studies (but one (Pritchard and Silvestro, 2005)), do not consider all the links of the chain.

More specifically, the factors that we did not include are: customer loyalty, external service quality, employee retention, and profitability, which have been excluded because of a number of reasons, in the case of the first two, because they would be of limited relevance in the context of the call centre industry. For example, we left out customer loyalty, because in the context of the call centre consumers are loyal to companies and service providers, and not to call centres. The second variable we left out is service quality. This was not included because, as shown in the literature review of

Chapter 2 there, are many problems in terms of measuring the link between external service quality and customer satisfaction in the context of the Call Centre. This is because frequently when researches measure customer satisfaction they employ measures of service quality. Furthermore, there are customers who are not able to distinguish between service quality and satisfaction. The third variable we left out is employee retention: we skipped employee retention because we have used a measure of retention, which is turnover, as a proxy of employee satisfaction, as will be further explained below. Finally, we did not incorporate a measure of profitability because this variable was not available in the GCCRP database. Figure 4.1 distinguishes the constructs that were included and left out in this study.

The measures used for each of the SPC links studied are now described.

Figure 4.1. Links of the SPC model included and excluded in this study



Internal Service Quality (Job design). As explained earlier, internal service quality is made up of various elements of the company's human resources management practices and job design. In the current study, this was measured using job characteristics that are

especially relevant to call centre work quality, focusing on the design of jobs (Wood et al., 2006). The call centre literature suggests that various aspects of discretion and flexibility are key differentiating characteristics of the quality of call centre work. This includes both positive (Frenkel, 1999; Marti-Audi. et al., 2013) and negative effects, such as employee complaints and sickness (Taylor et al., 2003). The job design characteristics, measured as a factor in this study, are:

- Discretion over work task (five point Likert scale): *To what extent do core employees typically have discretion over the daily work task they do?*
- Discretion over the speed of work (five point Likert scale): *To what extent do core employees typically have discretion over the speed at which they work?*
- Percentage of employees working in self-managed or autonomous teams: *What percentage of core employees routinely performs their job as part of self-managed or semi-autonomous teams?*

Employee satisfaction. As this was an organisational level survey, we followed the common practice of substituting the individual measure of employee satisfaction with organisational level proxy measures, that is, measures that have been found to be correlated with the original construct that the researcher is interested in. (Origo and Pagani, 2008) suggest that employee satisfaction may be understood as any form of employee utility. In this regard, absenteeism is one of these measures. Indeed, in their meta-analysis, (Scott and Taylor, 1985) found a significant negative relationship between absenteeism and job satisfaction, indicating that this would be a good proxy. Similarly, and more specifically in the context of service profit chain studies, (Hurley and Estelami, 2007) found that employee turnover was just as good a measure as

employee satisfaction in determining the relationship with customer satisfaction. This finding made them recommend the use of turnover rather than satisfaction as the former is a readily available measure in organisations as opposed to the high costs involved in collecting employee satisfaction data. Following these recommendations, the variables employed as proxies for employee satisfaction in this study are:

- Satisfactory labour relationships (five point Likert scale): *In general, how would you describe the relations between management and core employees in your call centre?*
- Employee absenteeism: *On a normal working day, what percentage of core employees are absent? Please include all types of absences but not holidays, vacations or absence for training.*
- Employee turnover: *In the previous year, what percentage of your core permanent employees quit?*

Labour force productivity. This factor was measured by two common indicators of call centre employee productivity: percentage of calls answered within target time (Piercy and Rich, 2009); (Banks and Roodt, 2011) and percentage of abandoned calls (Wood et al., 2006) (reverse coded).

- Percentage of call answered within target time: *What percentage of calls are actually answered within the target time?*
- Percentage of abandoned calls: *What percentage of calls are abandoned?*

Customer satisfaction. As this study involved an organisational level survey, customer satisfaction was a single measure obtained from the call centre manager, based on their customer satisfaction data and transformed into a five point Likert scale: *Based on the*

best information you have, what is the average level of customer satisfaction at this call centre?

Firm performance. In line with (Heskett and Schlesinger, 1994) who proposed that the final link in the service-profit chain is represented by the company's revenue growth, this study measured performance in terms of the change in the value of call centre sales over the previous two years (a three point scale with the values: decreased, no change, increased) (Batt, 2002a, 2002b): *In the last two years, has the value of your sales (your total revenue) increased, decreased or stayed the same?*

Figure 4.2. International confirmatory modelling

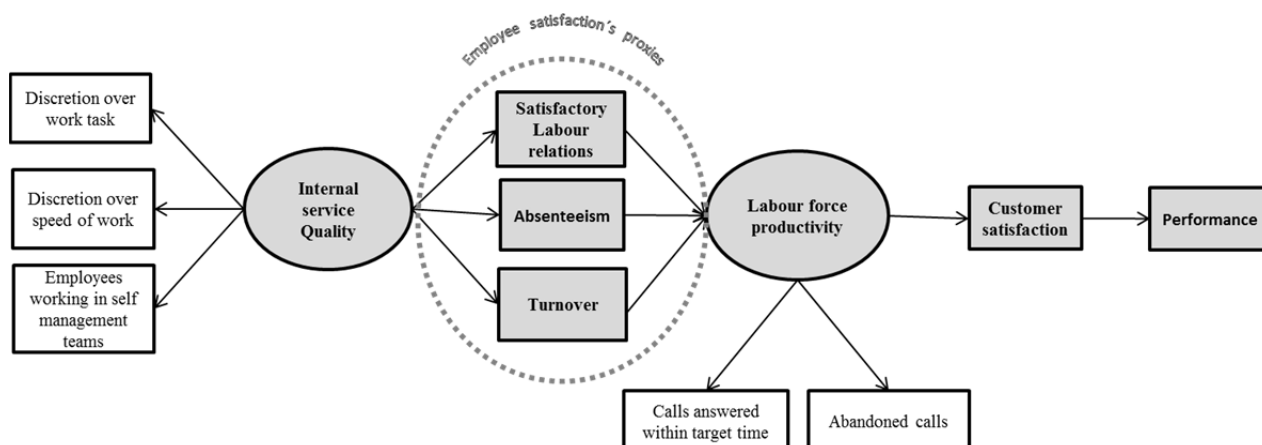


Figure 4.2 shows the estimated model, including the observed variables as well as latent variables and their corresponding indicators. As we can see, the model has two factors, which are Internal Service Quality and Labour Force Productivity. The three proxies of employee satisfaction, as well as the customer satisfaction and performance construct, are represented by observed variables.

4.3. ANALYTICAL PROCEDURE

As this study examines a complex chain of cause-effect relationships, the most appropriate analytical procedure is structural equation modelling (SEM) (Bollen, 1989b). This method allows researchers to statistically test the hypothesized model, employing simultaneously the entire system of variables (Byrne, 2006). Moreover, SEM facilitates the introduction of latent variables as well as observed variables. Finally, this technique takes into account the existence of measurement error, and allows researchers to accomplish the entire representation of the model by estimating all the relationships proposed.

In order to estimate the measurement and structural models, the data analysis was carried out using EQS software (Bentler, 1989), which is based on a covariance approach, where the covariance matrix is calculated from the sample data set. The covariance-based procedure arranges for optimal estimation of the model parameters if the structural and measurement model explains the co-variation of all the indicators.

Maximum likelihood (ML) estimation was employed in order to test the service-profit chain in call centres, and robust statistics were used in order to correct for non-normality of the data (Satorra and Bentler, 2001). The main purpose of ML test is to find a set of estimates for the free parameters that maximize the likelihood of the data given the specified model (Hoyle, 1995; Myung, 2003).

As we mentioned before, the structural equation modelling procedures allows researchers to incorporate both observed and unobserved variables. It enables us to predict the impact of one latent construct on another in modelling the causal direction, incorporating both a measurement model and a structural model. Thus, the measurement model embraces the relationship between the constructs and their respective indicators; meanwhile the structural model describes the extent to which, a particular latent variable changes the value of other latent variables. In this study, both the internal service quality and employee productivity constructs are considered as latent variables and are modelled as phenomena that cannot be directly measured.

4.4. RESULTS

We will now describe the main results of the measurement and structural model, followed by the conclusion of this study.

4.4.1. Descriptive statistics and measurement model

The measurement model defines the patterns by which each measure loads on a particular factor. In other words, it explains the extent to which the observed variables are linked to their underlying latent variables. The measurement instrument involves the factor analytical model, which could be carried out through exploratory factor analysis (EFA) or confirmatory factor analysis (CFA). EFA is recommended when the link between latent and observed variables is uncertain, meanwhile CFA is recommended

when researchers have some knowledge about the latent variable structure (Byrne, 2006). In our case, as the aim of our study is to confirm the applicability of an existent model, implies that the measurement for the two factors that appears in the study could be inferred from the original SPC model. Thus, we will address the measurement model through confirmatory factor analysis. In this sense, we are expecting that each item will have a nonzero loading on their underlying latent variable, and zero loading on all other factors.

Table 4.2 presents the descriptive measures of the data analysed (n=937), including the mean, standard deviation and correlations of measurement scales. All correlations were positive and significantly different from zero. Our model is made up of observable variables and latent variables. The latter were subjected to tests of reliability and validity. The factors (latent variables) to test are Internal Service Quality (ISQ) and Labour Force Productivity (LFP).

Table 4.2. Descriptive statistics and correlations among indicators

| | MEAN | SD | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|-------------|-----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|-----------|
| Employees have discretion over work task (1) | 35.9925 | 29.6755 | 1.0000 | | | | | | | | | |
| Employees have discretion over speed of work (2) | 46.4514 | 26.2777 | 0.3498 | 1.0000 | | | | | | | | |
| Employee working in semi-autonomous teams (3) | 25.3235 | 37.6386 | 0.2728 | 0.1823 | 1.0000 | | | | | | | |
| Labour relations (4) | 4.1526 | 0.7947 | 0.0556 | 0.0605 | 0.1109 | 1.0000 | | | | | | |
| Employee Absenteeism (5) | 5.6759 | 5.4522 | -0.1201 | -0.0988 | -0.0718 | -0.0478 | 1.0000 | | | | | |
| Employee turnover (6) | 12.5779 | 14.9387 | -0.1935 | -0.1711 | -0.1730 | -0.0419 | 0.1262 | 1.0000 | | | | |
| Calls answered within target time (7) | 84.5982 | 12.5074 | 0.0757 | 0.0395 | 0.0731 | 0.1406 | -0.1133 | -0.0667 | 1.0000 | | | |
| Abandoned calls – inverted (8) | 95.2683 | 4.5769 | -0.0337 | -0.0127 | -0.0435 | 0.1380 | -0.0982 | 0.0081 | 0.3969 | 1.0000 | | |
| Customer satisfaction (9) | 4.1729 | 0.6809 | -0.0003 | -0.0030 | 0.0740 | 0.1190 | -0.0513 | -0.0841 | 0.1725 | 0.1719 | 1.0000 | |
| Performance (10) | 2.5977 | 0.6597 | 0.0051 | -0.0070 | 0.0464 | 0.1071 | -0.0214 | 0.0149 | 0.1221 | 0.0910 | 0.0337 | 1.0000 |

Table 4.3. Tests of reliability, convergent and discriminant validity

| | Unidimensionality | Reliability | Convergent validity | Discriminant validity | | |
|----------------------------------|---|-----------------------|----------------------------|---|--|---|
| | Variance from principal component analysis | Cronbach Alpha | BBNFI | Average interscale correlation (Cronbach - AVISC) | Average item to scale correlation (scale item) | Average item to scale correlation (non-scale item) |
| Internal Service Quality | 1.542 | 0.50 | 0.887 | 0.438 | 0.711 | 0.023 |
| Labour force productivity | 1.397 | 0.40 | 0.887 | 0.338 | 0.799 | 0.043 |

Table 4.3 shows the results for the tests of unidimensionality, reliability, convergent and discriminant validity for the two factors that appear in the model. Regarding unidimensionality, we carried out a principal component analysis and applied Kaiser's criterion (Kaiser, 1960), which requires that the first eigenvalue is larger than 1 and it explains the largest part of the variance. These conditions were met for both factors (Internal Service Quality: first eigenvalue = 1.542 and variance explained by first component = 51.413%, followed by 27.523; and 21064. Labour Force Productivity: first eigenvalue = 1.397 and variance explained by first component = 69.847%, followed by 30.153). Additionally, we tested both factors for unidimensionality using the comparative fit index (CFI): Since our second factor only contained two observable variables (thus not having enough degrees of freedom to test it individually), we joined both factors with unconstrained covariance and looked for a CFI > 0.9 and RMSEA < 0.05. The result of this test was also satisfactory, since the CFI = 0.999, p-value = 0.009, Chi-square=68.67 with 32 degrees of freedom and RMSEA = 0.047.

Regarding reliability, we obtained the Cronbach's alpha of ISQ = 0.50 and LFP = 0.40. This can be considered an acceptable degree of reliability because we employed non-homogeneous data (Nunnally, 1967; Tsai, 2001). In addition, according to (Bentler and Wu, 2005), Alpha coefficient is based on a very restrictive one-factor model that requires all factors loadings to be equal, thus it could be the case that Alpha Cronbach is not a good estimator of internal consistency, as our model structure involved two factors (Byrne, 2006).

We tested for convergent and discriminant validity. Regarding convergent validity, we used the Bentler-Bonett Normed Fixed Index (BBNFI=0.999), showing good convergent validity. Regarding discriminant validity, we carried out three tests (Ghiselli et al., 1981), a chi-square pair-wise test (2.009), the average correlation between the scale and non-scale items ($0.023 < 0.711$ for the Internal Service Quality and $0.043 < 0.799$ for the Employee productivity) and the average interscale correlation (AVISC) was lower than Cronbach Alpha ($0.06 < 0.40$ and $0.06 < 0.50$). Thus all tests confirmed the discriminant validity of the two factors.

4.4.2. Structural Model

Preliminary considerations

The first task in the model testing procedure is to determine the goodness-of fit between the hypothesized model and the sample data. In other words, to address to which extent the model adequately describes the sample data. The model fit assessment may be

carried out by considering two criteria: the model fit as a whole and the individual parameters estimates.

According to Bollen, (1989a), the model fit as a whole is based on the null hypothesis (H₀), which postulates that specification of the factor loading, factor variance-covariance and error variance for the model under study are valid, and χ^2 tests the extent to which this specification is true. The perfect fit is when χ^2 of the tested model is higher than the χ^2 value when the H₀ is true (Bollen, 1989a). However, according to MacCallum, (1996), for structural equation modelling research, it was unrealistic to find a well-fitting model, where the χ^2 value approximates the degree of freedom. In this sense, researchers attempt to deal with the χ^2 limitations and developed goodness-of-fit indexes that consider a more realistic evaluation process. These new criteria are grouped into three categories: “comparative” fit-indexes, “incremental” and “absolute” fit-indexes.

Within the first group, we may highlight the following indicators: NFI - Normed Fit Index (Bentler and Bonett, 1980), NNFI - Non-normed Fit Index, CFI - Comparative Fit Index (Bentler, 1990). IFI – Incremental Fit Index (Bollen, 1989b) falls into the “incremental” category and represents a derivative of NFI. These two groups of indices rely on a comparison with a reference model (usually null hypothesis) to determine the amount of improvement in the model fit. Values for NFI, CFI and IFI range from 0 to 1, however a value greater than 0.90 is considered representative and confirm the goodness-of-fit model (Bentler, 1990, 1992). The NNFI is a variant of NFI, but takes model complexity into account, and the value of this indicator could stand above the range from 0 to 1. The third category encompasses “absolute” indices, which explain

how well the estimated model fits the sample data (Jöreskog, 1993). The main indicators pertaining to this group are: MFI – McDonald Fit Index (McDonald, 1989), GFI – Goodness-of-fit Index and AGFI – Adjusted Goodness-of-Fit statistic (Jöreskog, 1993), Chi-Squared test, RMSEA and Standardized RMR.

Chi-Squared test is the traditional tool employed to assess the model fit, by considering the discrepancies between the sample data and the covariance matrix (Hu and Bentler, 1999; Satorra and Bentler, 2001). The acceptable threshold level is the relative Chi-Squared to degree of freedom (χ^2/df) should be 2:1 (Tabachnick and Fidell, 2007) or 3:1 (Kline, 2005). The GFI calculates the proportion of variance that is accounted for by estimated covariance, meanwhile AGFI adjust the GFI to the number of degrees of freedom in the hypothesized model (Jöreskog, 1993). Values reported for these indices range from 0 to 1. The GFI and AGFI could also be negative (Jöreskog and Sörbom, 1993), however a negative value would mean that the model fit is worse than no model at all (Byrne, 2006). The RMSEA – Root Mean Square Error of Approximation (Steiger and Lind, 1980; Steiger, 1990) explains how well the model would fit the covariance matrix, by considering optimal parameter estimates. The optimal value used ranges from 0.05 to 0.08 (Hoyle, 1995; MacCallum, 1996), however, other researchers reduce the value to 0.06 (Hu and Bentler, 1999) and even to 0.03 in order to confirm an excellent fit (Hooper et al., 2008). Finally, the SRMR is the standardized square difference between residuals of the covariance matrix and the hypothesized covariance model. The value for SRMR ranges from 0 to 1, but the recommended values for well-fitting models are above 0.5 (Byrne, 2006).

Testing the SPC in call centres structural model

The overall model fit presented the statistics as outlined in Table 4.4: $\chi^2=68.673$, $df=32$, $p = 0.00017$, and fit indices: normed fit index (NFI) (Bentler and Bonett, 1980) = 0.887; NNFI = 0.908; comparative fit index (CFI) (Bentler, 1990) = 0.935; incremental fit index (IFI) (Bollen, 1989b) = 0.936; GFI (Williams and Hazer, 1986) = 0.985; and root mean square error of approximation (RMSEA) (Steiger, 1990) = 0.035. The values of the fit indices were all satisfactory in terms of Bagozzi, (1980) standards. Nevertheless, the value showed that the fit of the model was not good enough. This problem is addressed below.

Table 4.4. Values of estimated model

| Indices | Estimated model |
|---|------------------------|
| Chi square | 68.673 |
| Degrees of freedom | 32 |
| P value | 0.00017 |
| BentlerBonett Normed Fit Index (NFI) | 0.887 |
| BentlerBonett Non Normed Fit Index (NNFI) | 0.908 |
| Comparative fit index (CFI) | 0.935 |
| Incremental fit index (IFI) | 0.936 |
| GFI | 0.985 |
| Root mean square error of approximation (RMSEA) | 0.035 |

The main relationships tested in the model were confirmed, except for the relationships between employee turnover and labour force productivity, and between customer satisfaction and call centre performance. In order to locate the main misspecifications in the model, we observed the modification indices by carrying out a LM test (Langrage Multiplier Test) (Chou and Bentler, 1990; Godfrey, 1991). The LM statistic test allows us to determine the degree of modification that could be considered for the tested model. In this sense, a strong relationship between employee productivity and call

centre performance was identified, which the service-profit chain model does not propose as a direct link, but only mediated through customer satisfaction.

To address the lack of model fit, we re-estimated the model, this time including this new relationship suggested by the data which consisted of adding a new parameter between employee productivity and call centre performance. The re-estimated model shows a better fit, in terms of a significant improvement of the chi-square statistic (and the associated *p*-value) and the fit indices, as shown in Table 4.5. Although chi-square is still significant (i.e. the *p*-value is below the recommended 0.05) our analysis is based on a large sample size. Due to the sensitivity of the chi-square statistic to large samples (Bentler and Bonett, 1980) small misspecifications tend to produce large chi-square values (Satorra and Saris, 1985). Table 4.5 shows how the improvement of the model was significant. Regarding the fit indices, the values of NFI, NNFI, CFI, IFI are very satisfactory (>0.9) and have improved from the first estimated model. The GFI value is well above the minimum of 0.85 that marks the limit of a model with a good fit (Williams and Hazer, 1986). Similarly, the RMSEA has also improved and is well below the maximum suggested limit of 0.08 (Browne and Cudeck, 1989). Most importantly, in the modified model, the values of the original parameters are almost identical, demonstrating that all of the relationships across the model and as far as labour force productivity are very stable.

Table 4.5. Values of estimated and re-estimated model.

| Indices | Estimated model | Modified model |
|---|------------------------|-----------------------|
| Chi square | 68.673 | 51.539 |
| Degrees of freedom | 32 | 31 |
| P value | 0.00017 | 0.01169 |
| BentlerBonett Normed Fit Index (NFI) | 0.887 | 0.915 |
| BentlerBonett Non Normed Fit Index (NNFI) | 0.908 | 0.947 |

| | | |
|--|----------|----------|
| Comparative fit index (CFI) | 0.935 | 0.963 |
| Incremental fit index (IFI) | 0.936 | 0.964 |
| GFI | 0.985 | 0.989 |
| Root mean square error of approximation (RMSEA) | 0.035 | 0.027 |
| Akaike's Information Criterion (AIC) | 4.673 | -10.461 |
| Consistent Akaike's Information Criterion (CAIC) | -182.293 | -191.585 |

In order to ensure that the corrected model is significantly different and more accurate than the originally estimated one, we compared the two models by carrying out a χ^2 difference test using the Satorra-Bentler chi-square difference test (Crawford and Henry, 2003; Satorra and Bentler, 2001). This gave a satisfactory Satorra-Bentler Scaled Difference at 12.3062 with 1 degree of freedom. Additionally, we compared the two models by considering the CAIC value, which is recommended for large sample sizes by using the method of maximum likelihood and choosing the best model through the minimum level of CAIC (Bigné et al., 2005; Bozdogan, 1987). Our classic model shows a CAIC= -182.293 while for the corrected model the CAIC = -191.585. This confirms that the modified model better reflects the reality of the links of the SPC model in call centres.

Figure 4.3. Service-profit chain model in the Call Centre industry (confirmatory modelling)

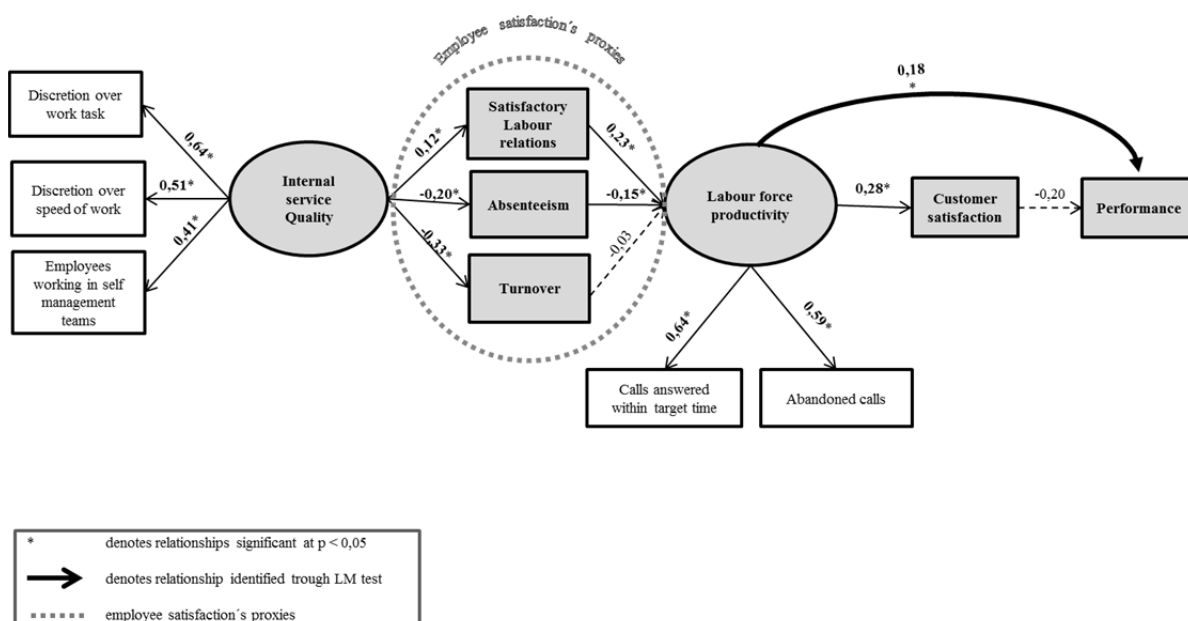


Figure 4.3 illustrates the re-estimated model and includes the standardised parameter estimates. Overall, the better adjusting model closely resembles the service-profit chain scheme. In particular, internal service quality, as a factor of job design characteristics, is significantly related to the three proxies of employee satisfaction that we have proposed in this study: This means that good job design will bring about more satisfactory labour relations (0.12), less employee absenteeism (-0.20) and less employee turnover (-0.33). In turn, absenteeism and satisfactory labour relations are significantly related to labour force productivity: a satisfactory labour relations climate does improve employee productivity (0.23), while employees that are less absent will also be more productive (-0.15). However, employee turnover is not significantly related to labour force productivity in call centres. Subsequently, labour force productivity is significantly related to customer satisfaction (0.28). Nevertheless, in contrast to the classic SPC model, we found that customer satisfaction is not significantly linked to call centre performance. Instead we discovered that employee's productivity leads directly to better company performance (0.18). This is the new link in the SPC which emerged from the analysis of the call centre data.

4.5. DISCUSSION

The results of the study show that the service-profit chain applies to the call centre sector with a number of nuances, as we will now explain. The first link of the SPC between internal service quality and employee satisfaction holds true in the call centre industry. Although call centre work is typically stereotyped as low quality (Bain et al., 2002), a number of studies suggest that there is a whole range of types of jobs within the industry (Ellway, 2014; Marti-Audi. et al., 2013). Therefore, knowing that there is a link between company HR investments and employee outcomes is particularly relevant for this sector. Indeed, this finding suggests that even when there is limited room to improve job design and HR practices, if companies do so, it pays off in terms of improved employee satisfaction (Batt and Colvin S., 2011; Kinnie et al., 2000).

The study also makes a methodological contribution in terms of overcoming a problem associated with organisational level research. Indeed, the service-profit chain is an organisational level model that includes a number of elements at the micro level of the individual such as employee satisfaction. In this study we have identified three proxy measures for employee satisfaction, namely absenteeism, employee turnover and satisfactory labour relations. Employee satisfaction is a key component of the SPC but it is a measure which is time consuming and expensive to collect. Thus many companies do not avail of direct data on this construct. However, most companies do possess data on absenteeism and employee turnover. Therefore, in this study we have proposed and contrasted a way to measure the individual level construct of employee satisfaction via readily available organisational data.

Regarding the proxies of employee satisfaction and their effect on labour force productivity, unsurprisingly the study shows that higher absenteeism is linked to lower employee productivity. Indeed, this reflects the reality of the call centre sector in that when operators are absent the typical indicators of productivity such as calls answered within target time decrease, and the proportion of abandoned calls increases. In addition, a satisfactory level of labour relations is positively related to labour force productivity. This confirms previous studies on call centres suggesting that when labour relations are poor, the productivity of employees tends to be accordingly low, even to the extent that employees may develop subversive strategies to cope with the pace and nature of call centre work (Bain and Taylor, 2000; Raz, 2007). Conversely, supportive management initiatives can alleviate the effects of exhaustion in call centres (Deery et al., 2010), thus letting employees concentrate on improving their productivity. However, the study does not find a significant relationship between employee turnover and labour force productivity. This may reflect a peculiarity of work in call centres characterised by consistently high levels of employee turnover (Das et al., 2013; Townsend, 2007). Indeed, turnover is so pervasive in this sector that it is common practice to maintain built-in processes to select and train new employees to reach maximum productivity in a very short period of time (Wallace et al., 2000).

In the service profit chain model, employee productivity impacts on organisational performance via customer satisfaction. However, in this study we did not identify this mediation relationship, as our data showed that customer satisfaction is not significantly related to revenue growth. This presents us with an important challenge to the fundamental tenets of the marketing orientation in the context of the call centre. This

result may be explained by a number of reasons. Firstly, a possible explanation is that suggested by Evanschitzky, Sharma, et al., (2012), who identified a time lag between customer satisfaction and organisational performance in their longitudinal study. As our study is cross sectional in nature, it has not tested for this effect. Secondly, call centre customers, despite feeling unsatisfied, do not necessarily abandon service providers because of the significant 'hassle factor' involved in changing to a new provider (Panther and Farquhar, 2004). In this way, consumers unsatisfied with a call centre might not affect company performance. Thirdly, as noted by (Levesque and McDougall, 1996), it may make more sense to manage customer dissatisfaction rather than satisfaction as a precursor of company performance and growth. In fact, in the specific case of call centres, service employees routinely deal with issues related to angry, frustrated and dissatisfied consumers (Helms and Mayo, 2008). In this sense, future research on the SPC in call centres should examine the link between customer dissatisfaction, dissatisfaction management and company performance. Fourthly, as suggested by (Homburg et al., 2011), it may be that relationship between customer satisfaction and company performance is quadratic rather than linear.

Nevertheless, the study does indicate a clear and significant relationship between labour force productivity and call centre performance. This outcome resonates with the results of an earlier study that found that the efficiency demands of call centre employees are linked to call centre performance (Dean and Rainnie, 2009). Hence, our study shows that the productivity of the call centre workforce impacts directly, although separately, on both call centre performance and on customer satisfaction. Therefore, the call centres with greater customer satisfaction are not necessarily those centres that perform better in terms of increased revenues. This unexpected result deserves further research, but for

the time being it can be interpreted in a number of ways in terms of existing literature. A first interpretation would suggest that customer satisfaction and higher revenues may be distinct and separate goals of call centres. In this sense, the two separate ends (ultimate consequences) to the SPC, may reflect the two alternative call centre management approaches: the production line approach (focus on meeting quantitative targets) and the empowerment or customer orientated approach (focus on satisfying customers) (Gilmore, 2001; Walsh et al., 2012). A second line of enquiry that might aid the interpretation of this result is the suggestion that both quantity and quality must be simultaneously pursued in call centres (Korczynski, 2002). More recently this argument has been refined with the idea that quantity and quality may or may not be trade-offs depending on the unit of observation (specific call versus long run quantity/quality outcomes) (Ellway, 2014).

In conclusion, this study suggests that the service-profit chain model, with some added nuances, mostly applies in the context of the call centre sector. The logic of the model suggests that greater investment in HR policies will led to higher employee satisfaction and productivity, and subsequently to improved customer satisfaction and company performance. This study suggests this logic holds up in a sector characterised by a cost cutting approach and non-traditional non-face-to-face services. Finally, although there have been criticisms and calls to avoid the SPC becoming a straightjacket for management (Pritchard and Silvestro, 2005), our study suggests that the basic logic of the model is upheld in non-traditional services, but that further research is required to determine how the model can be best adapted to explain the peculiarities of the evolving service economy.

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CHAPTER 5

STUDY 2: SMALL SAMPLE EXPLORATORY MODELLING

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CHAPTER 5. SMALL SAMPLE EXPLORATORY MODELLING

5.0. INTRODUCTION

As we stated in chapter three, our initial study about the applicability of the service-profit chain model in the call centre industry did not show any conclusive results because the analytical technique was not adequate (H2). This unsuccessful result could be due to two reasons. Firstly, the previous technique (EQS software) presents requirements for a large sample size. Secondly, it is not particularly suited, or even intended, for exploration. Given the original results, in this chapter we carry out a study of the broad spectrum of SPC relationships with a small national dataset of call centres (n=109 cases) by employing a different technique that is considered to be more suitable for small sample size as well as for exploratory modelling. By exploratory study we do not imply an unstructured approach. Although we implement an exploratory modelling generator scenario by modifying and re-estimating the original model, it was not a blind analysis. Indeed, it was firmly anchored to the existent and accordingly related literature.

Therefore, we returned to the Spanish database (sample=109 cases), which had some additional questions that were not included in the global questionnaire and vice versa. For instance, the construct of employee satisfaction was slightly different, as for Spain

we did not avail data for the item “Satisfactory labour relationships”. So we tested the same model of the SPC, but in this case the Employee Satisfaction construct integrated only two items: Employee Turnover inverted and Employee Absenteeism inverted. On the contrary, we did avail of additional variables that could be employed in order to measure employee productivity and employee performance.

This chapter first addresses the analytical procedure employed in order to analyse the data. It also explains a new model specification that derives from exploratory modelling and presents the results of the measurement and structural model. Finally, the chapter highlights the main conclusions and contribution of the study. Please note that in this chapter we do not include a section explaining the data collection, as this has already been done in chapter four.

5.1. ANALYTICAL PROCEDURE

As the literature suggests, the most appropriate procedure for complex models that involve cause-effect relationships is Structural Equation Modelling (SEM). But, as we mentioned in Chapter 3, after estimating the structural model with EQS software (Bentler, 1989), the results showed that the goodness of fit did not reach a satisfactory level. One explanation could be that EQS software, being a covariance-based method, may have limitations when dealing with small sample size and non-normal data (Reinartz et al., 2009).

In this sense, the literature recommends that Partial Least Square (PLS) is a potent method for SEM analysis, as it presents minimal demands on sample size and on measurement scale (Chin and Marcoulides, 1998). In addition, this technique is suitable for exploratory studies (Lee et al., 2006) as well as for the initial development and theory building (Julien and Ramangalahy, 2003). Known also as variance-based method, PLS estimates parameters in small subset of a model (Wold, 1985a) and can handle complex predictive models and employing constructs with few items (Hair et al., 2011).

Unlike the covariance-based approach, where the parameters are estimated through a rigid arrow scheme (because it decides how indicators are correlated), the PLS (being a variance-based approach), employs a flexible arrow scheme, by allowing to create various combinations: mode A (only reflective indicators), mode B (only formative indicators), and mode C (formative and reflective indicators) (Chin and Marcoulides, 1998). In order to decide if the indicators should be displayed as reflective or formative we may take into consideration some of these aspects: the background theory of the construct, the objective of the study (design reflective measure if the aim of the study is to explain or predict observed measures) and empirical conditions (if the change in a construct would cause a similar change in the item, whether this is a reflective indicator, on the contrary, the indicator could be modelled as formative, also consider that formative constructs are not expected to be correlated). Our study is categorized as mode C, because it employs both formative and reflective indicators.

5.2. MEASURES

The measures used for each of the SPC links studied are now described. Please note that we only reproduce the full wording of the specific questions of the survey for the variables that differ from the international study outlined in chapter 4.

Internal Service Quality. As explained earlier, internal service quality is made up of various elements of the company's human resources management practices and job design. In the current study, this was measured using job characteristics that are especially relevant to call centre work quality, focusing on the employees discretion and design of jobs (Wood et al., 2006). In this way, the two factors employed to measure Internal Service Quality are: Discretion and Job design.

- *Discretion* in this study is modelled as a reflective factor and is measured by three indicators: extent to which employees have discretion over work tasks, discretion over methods of work, and discretion over speed of work (all on a five point Likert scale).
- *Job Design* is modelled as a formative factor and is measured by: percentage of employees working in self-managed or semi-autonomous teams, and percentage of employees with flexible working arrangements.

Employee satisfaction. As this was an organisational level survey, we followed the common practice of substituting the individual measure of employee satisfaction with organisational level proxy measures, that is, measures that have been found to be correlated with the original construct that the researcher is interested in. Origo and

Pagani, (2008) suggests that employee satisfaction may be apprehended as any form of employee utility. In this regard, absenteeism is one of these measures. Indeed, in their meta-analysis, (Scott and Taylor, 1985) found a significant negative relationship between absenteeism and job satisfaction, indicating that this would be a good proxy. Similarly, and more specifically in the context of service profit chain studies, (Hurley and Estelami, 2007) found that employee turnover was just as good a measure as employee satisfaction in determining the relationship with customer satisfaction. This finding made them recommend the use of turnover rather than satisfaction as the former is a readily available measure in organisations as opposed to the costs involved in collecting employee satisfaction data. Following these recommendations, the variables employed as proxies for employee satisfaction in this study are: *absenteeism* (the percentage of employees absent on normal working days), and *employee turnover* (percentage of employees who quit in one year), both of them inverted into positive indicators. The construct of Employee Satisfaction is modelled as a reflective factor.

Employee productivity. This factor was measured by two common indicators of call centre employee productivity: *percentage of calls answered within target time* (Piercy and Rich, 2009); (Banks and Roodt, 2011) and *percentage of abandoned calls* (Wood et al., 2006) (reverse coded). This factor was modelled as formative construct.

Employee retention. Following (Heskett and Schlesinger, 1994) this construct was measured by two items: typical tenure of core employees (*Please indicate the typical tenure in the organizations for your core employees*) and percentage of core employees

with tenure more than five years (*Please indicate the percentage of core employees with tenure more than five year*). This was considered a reflective construct.

Customer satisfaction. As this study involved an organisational level survey, customer satisfaction was a single measure obtained from the call centre manager, based on their customer satisfaction data and transformed into a five point Likert scale. This construct was modelled as a reflective factor.

Firm performance. In line with (Heskett and Schlesinger, 1994) who proposed that the final link in the service-profit chain is represented by the company's revenue growth, this study measured performance in terms of percentage by which value of sales increased or decreased over the last two year (Batt, 2002a, 2002b). This construct is considered a reflective construct.

5.3. RESULTS

In this study we use PLS Graph version 3.0 to test the measures and the model. In order to estimate the significance (t-value) of the relationship, we employed a bootstrap technique (Chin, 2003), which involve resampling the data set 1,000 times (Efron and Tibshirani, 1994). The bootstrap PLS output provides the mean value and the standard error for each path coefficient, and also the t-student test that shows the significance of each path relationships of the model. The blindfolding procedure was carried out in order to obtain Stone-Geisser's Q2 (Geisser, 1975; Stone, 1974), which is expected to

be greater than 0 in order to confirm the predictive relevance of the model (Wold, 1982, 1985b).

Figure 5.1. The Service-profit chain in Spanish Call Centres

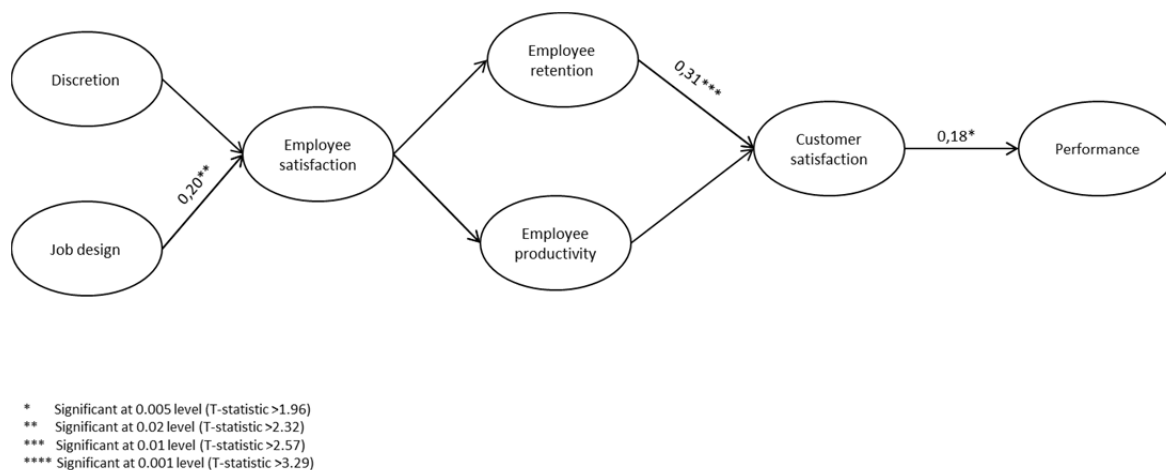


Figure 5.1 shows the results of the tested model, including the path coefficients as well as the t-values obtained from the bootstrapping method in PLS. As suggested by Chin and Marcoulides, (1998) the standardized path should be at least 0.20 in order to be considered meaningful. As we can see in Figure 5.1., Job Design is significantly related to Employee satisfaction at $p < 0.02$ (t -statistic=2.36), but Discretion is not related to Employee Satisfaction as the t -statistic for this relationship did not reach the minimum level ($t=1.73$). Also, Employee Satisfaction is not significantly related to Employee Retention, which neither is to Employee productivity, as the t -statistic for this relationship did not reach the minimum level, being 1.64 and 1.23 respectively. The relationship is also insignificant for the path between Employee Productivity and Customer Satisfaction (t -statistic = 0.88). And finally the Customer Satisfaction mediates the relationship between Employee Retention and Results, with t -statistic

3.01 and 1.97 respectively. In addition, the cross-validated communality for this model is negative (-0.02), meaning that the predictive capacity of the structural model is not relevant.

This PLS output based on the Spanish data (sample =109 cases) is in line with the output obtained through the EQS data analysis, suggesting that the small sample size is not the only problem in the applicability of the SPC model in the Spanish Call Centre industry. In this sense, as the Spanish data has more available variables, we move from the theory testing to an exploratory study. So at this point, the study becomes an inductive study, as we let the data “talk”.

Considering the outputs of the model presented in Figure 5.1, we may take into account that the model does not fit, and basically the main problem is presented in the relationship between Employee Satisfaction and Employee Productivity, which is not significant (t-statistic 1.23), but shows that the path coefficient is negative. When we remove this relationship, the results show two additional significant relationships, which are: Discretion over Employee Satisfaction; and Employee Satisfaction over Employee Retention.

5.3.1. Identifying and measuring a new model

In this sense, we checked for additional models in the literature related to employee satisfaction and productivity, and we found that some authors suggest that it is not employee satisfaction that causes productivity, but the reverse is true (Porter and

Lawler, 1968). The main contribution of the Porter and Lawler model is that employee productivity is an antecedent of employee satisfaction and not the cause. In addition, according to these authors, the relationship between antecedents of employee productivity and Employee Productivity itself are moderated by three variables, namely employee's role, opportunities to develop this role, and employee ability and knowledge to perform the task, which could be achieved through training.

So considering this model, we redesigned the SPC model by adding additional constructs and change the relationship between the Employee Productivity and Employee Satisfaction, in this case considering the former as an antecedent of the latter. According to Porter and Lawler, (1968), employee productivity depends on the employee's ability to perform the task, which could be achieved through training. In this sense, we consider training as an antecedent of employee productivity. With a similar logic, we also included a relationship between overall employee performance and employee retention.

As we mentioned before, the Spanish dataset avails of more variables, so we re-estimated the model by adding two new constructs which are: Training and Employee performance.

Training is a reflective construct and is measured by two indicators: *formal training for typical core-employees in interpersonal or team-building skills (How much formal training do you provide the typical core employee in the interpersonal or team building skills?)*, and *number of days of formal training received per year by experiences core*

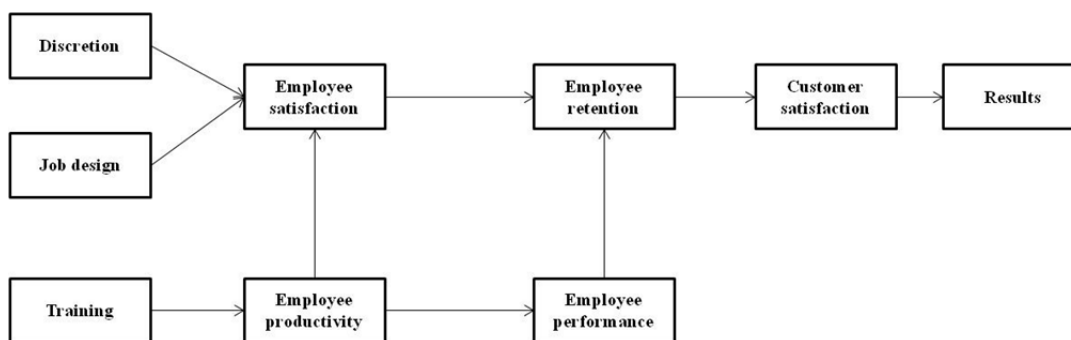
employees (How many days of formal training per year does a typical core employee receive?).

Employee Performance is a reflective construct measured by a single indicator, namely *the percentage of achievement performance (considering the main productivity indicator of your call centre, please provide the percentage of actual achieved productivity of your call centre)*. This indicator was obtained by asking call centre managers about how, in their specific call centres, the overall performance of their employees was measured. This is a broader and more nuanced measure than employee productivity, such as typical call centre measures of abandoned calls, because it captures the specific requirements of what constitutes employee performance in each call centre surveyed.

5.3.2. The re-estimated SPC model in Spanish call centres

We then run the re-estimated model illustrated in Figure 5.2 using PLS Graph 3.0. Although most of the relationships were significant, we still faced some problems with the Employee Productivity construct. In this case, the indicators employed to measure this construct (number of call answered within the target time, and abandoned calls, inverted) present negative loadings and low t-statistic. It lead us to deduce that, it could be the case, that these common indicators used to measure Employee Productivity in the Call Centre industry are not the most appropriate.

Figure 5.2. The re-estimated model (exploratory study)



There are authors that suggest that Employee productivity constructs could be measured in a different way, but it may encompass some essential elements, such as: time standard, task to be performed, the main objective of the task and of course cost control, which should be in line with company policies and purposes (Nance and Nolan, 1971). In our case, considering that different Call Centres could have different purposes, maybe there are some Call Centres that focus their efforts on first call resolution, rather than on reducing abandoned calls. And also, in the case of outbound Call Centres, where the main hub of activity is to carry out outgoing calls, the “abandoned calls” may not be a metric to be considered. In fact, some studies suggest that in the context of Call Centre, abandoned call is rather a company’s performance indicator (Piercy and Rich, 2009; Robinson and Morley, 2006), as it depends not only on employee’s capacity to perform the task, but also on the server design and queuing models (Dean, 2008; Whiting and Donthu, 2009). Regarding the second indicator “number of calls answered within target time”, it could be the case that in the Call Centre industry, agents make use of Parkinson’s Law, which states “work expands so as to fill the time available for its completion (Parkinson and Osborn, 1957). It means that in the long run, employees realize that they can extend the task in such a way that the work time could be doubled or tripled, and also are showing solidarity in this action (Nance and Nolan, 1971). As

our sample embraces different types of Call Centres (in-house, outsourced, inbound and outbound) it could also be the case that “answering the call within the target time” is a specific productivity metric that could be suitable only for inbound call centre. In this sense, we may check for more general productivity metrics that could be appropriate for all types of Call Centres.

In this sense, considering that we avail more indicators within the Spanish data, we measured the Employee Productivity by another available variable, which is the number of calls a core employee handles per day.

We run the model by using PLS Graph version 3.0. As previously, in order to test the significance of the relationships within the model we employed the bootstrap technique (Chin, 2003). The blindfolding procedure was carried out in order to obtain Stone-Geisser’s Q2 (Geisser, 1975; Stone, 1974), which is expected to be greater than 0 in order to confirm the predictive relevance of the model (Wold, 1982, 1985b).

5.3.3. Formal specification of the model

As we mentioned before, unlike other methods of structural equation modelling, PLS is a variance-based method, meaning that all the parameters are estimated in order to reduce the unexplained variance (residual variance) of the latent and observed variables. According to (Chin and Marcoulides, 1998), the estimation procedures that PLS employs consist of three stages: relationship’s specification between latent variables

(inner model), relationship specification between latent and observed variables (outer model) and causal relationship estimation (weight relations).

Table 5.1. Measurement model (exploratory study)

| Constructs | Loadings (T- statistic) | Weights (T- statistic) | Composite reliability (>0.7) | AVE (>0.5) |
|--|--|---------------------------------------|--|--------------------------|
| Discretion | | | 0,885 | 0,719 |
| Discretion over daily work tasks (Q351A) | 0.8579 (11.2244) | 0.3880 (3.2836) | | |
| Discretion over tools, methods, procedures (Q351B) | 0,8588 (11.1679) | 0.4079 (3.3108) | | |
| Discretion over pace/speed of work (Q351C) | 0.8263 (11.3806) | 0.3860 (4.4479) | | |
| Job design (formative construct) | | | 0,729 | 0,59 |
| Employees working in self-managed team (Q332C) | 0.9391 (9.9903) | 0.8600 (6.7364) | | |
| Employees with flexible working arrangements (Q332F) | 0.5456 (3.0685) | 0.3527 (1.7757) | | |
| Training | | | 0,773 | 0,63 |
| training received per year by core-employees (Q321C) | 0.7556 (5.4394) | 0.5870 (3.0999) | | |
| training for core employee in team-building skills (Q322C) | 0.8303 (5.9958) | 0.6775 (3.5870) | | |
| Employee satisfaction | | | 0,662 | 0,519 |
| employee absenteeism inverted (Q28positive) | 0.4683 (2.8006) | 0.4187 (2.7417) | | |
| employee turnover - inverted (Q210A12positive) | 0.9045 (11.4371) | 0.8952 (8.5038) | | |
| Employee retention | | | 0,885 | 0,801 |
| Typical tenure of core employees (Q211A3) | 0.6945 (7.3158) | 0.5669 (4.1608) | | |
| Percentage of core employee with tenure > 5 years (Q211C3) | 1.0578 (5.0549) | 0.8293 (5.4628) | | |
| Employee productivity (formative construct) | | | 1 | 1 |
| Number of calls a core employee handle | 1.0000 | 1.0000 | | |

| | | | | |
|--|--------------------|--------------------|---|---|
| per day (Q411H) | (0.0000) | (0.0000) | | |
| Employee performance | | | 1 | 1 |
| Percentage of achievement performance (Q415I3) | 1.0000 (0.0000) | 1.0000 (0.0000) | | |
| Customer satisfaction | | | 1 | 1 |
| Customer satisfaction (Q423) | 1.0000 (0.0000) | 1.0000 (0.0000) | | |
| Results | | | 1 | 1 |
| percentage by which sales changed (MQ413B) | 1.0000 (0.0000) | 1.0000 (0.0000) | | |

Table 5.1 shows the loading as well as the weight for the reflective and formative sets. The data were obtained by performing bootstrap technique, which involved re-sampling the data set 1.000 times (Efron and Tibshirani, 1994). Overall, the loading for the reflective blocks were relatively high >0.7 , with the exception of the employee absenteeism item (loading = 0.46). However, it could be explained by the fact, that within the employee satisfaction construct, employee turnover explains a greater part than employee absenteeism. Regarding the formative constructs, in our case job design, the weights of the observed variables are 0.86 and 0.35.

5.3.4. Measurement model evaluation

In order to assess whether the latent constructs were consistently measured by observable variables, we may check for convergent and discriminant validity, as shown in Table 5.2.

Table 5.2. Correlation matrix (exploratory study)

| Construct | CR | AVE | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|--|--------|--------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Discretion (1) | 0,8850 | 0,7190 | 0,8479 | | | | | | | | |
| Job design (2) | 0,7290 | 0,5900 | 0.238 | 0,7681 | | | | | | | |
| Employee satisfaction (3) | 0,6620 | 0,5190 | 0.369 | 0.306 | 0,7204 | | | | | | |
| Employee productivity (4) | 1,0000 | 1,0000 | -0.283 | -0.111 | 0.056 | 1,0000 | | | | | |
| Customer satisfaction (5) | 1,0000 | 1,0000 | 0.146 | 0.025 | 0.023 | 0.133 | 1,0000 | | | | |
| Results (6) | 1,0000 | 1,0000 | 0.189 | -0.085 | -0.101 | -0.148 | 0.165 | 1,0000 | | | |
| Employee retention (7) | 0,8850 | 0,8010 | 0.169 | 0.208 | 0.253 | 0.074 | 0.259 | -0.105 | 0,8950 | | |
| Training (8) | 0,7730 | 0,6300 | 0.095 | -0.044 | 0.237 | 0.354 | 0.135 | -0.167 | 0.055 | 0,7937 | |
| Employee performance (9) | 1,0000 | 1,0000 | -0.069 | -0.022 | -0.132 | 0.263 | 0.456 | 0.087 | 0.263 | -0,1100 | 1,0000 |
| *square root of AVE on diagonal | | | | | | | | | | | |

Convergent validity assesses the internal consistency for a given block of indicators by considering the composite reliability level (Werts et al., 1974). The composite reliability is only applicable for reflective indicators (Chin and Marcoulides, 1998) and according to Nunnally, (1967) it should be greater than 0.7. Table 5.2 shows that most of the latent variables from our model meet this requirement, except the construct of employee satisfaction, whose composite reliability is 0.66.

Discriminant validity can be checked by using the Average Variance Extracted (AVE) proposed by Fornell and Larcker, (1981). It measures the amount of variance that a component captures from its latent variable relative to the amount of variance captured from other indicators (Barclay et al., 1995). Therefore, as in the case of composite reliability, AVE is applicable only for reflective indicators and should be greater than 0.5 (Chin and Marcoulides, 1998). This requirement was fulfilled by all the constructs in the model. In addition, it is recommended that a construct have good discriminant validity if the square root of the AVE for each construct is greater than the correlation between the construct and any other construct in the model (Chin and Marcoulides, 1998; Fornell and Larcker, 1981). As we can see in Table 5.2., all the constructs estimated in the model meet this condition, as any of the elements in the matrix exceeded the respective diagonal element. Thus, the discriminant validity of the estimated model is confirmed.

5.3.5. Structural model evaluation

As PLS is a variance-based technique, it would not be appropriate to test for the significance of the model. Instead, Chin and Marcoulides, (1998) suggest that we may assess the predictive capacity by considering the R-square for dependent latent variables (Cohen, 1988), the Stone-Geisser Q2 (Geisser, 1975; Stone, 1974) and the average variance extracted (AVE) developed by Fornell and Larcker, (1981).

R-square is extracted from the inner path model and is expected to reach 0.67 value for substantial significance, 0.33 for moderate level and 0.19 for weak level (Chin and Marcoulides, 1998). In our case, all the constructs are below the minim required level, and the only construct reaching only the weak level is employee satisfaction (r-square=0.21).

The Stone-Geisser Q2 (Geisser, 1975; Stone, 1974) was obtained by carrying out the blindfolding procedure that is expected to be greater than 0 (Chin and Marcoulides, 1998; Wold, 1982). Therefore, the cross-validated communality for this model was 0.42, confirming that the predictive capacity of the model is relevant. Also, the average variance extracted (AVE) ranged from 0.51 to 0.80, which means that at least 50% of the indicator's variance is explained (Chin and Marcoulides, 1998; Fornell and Larcker, 1981).

Figure 5.3. Path coefficients of the estimated model

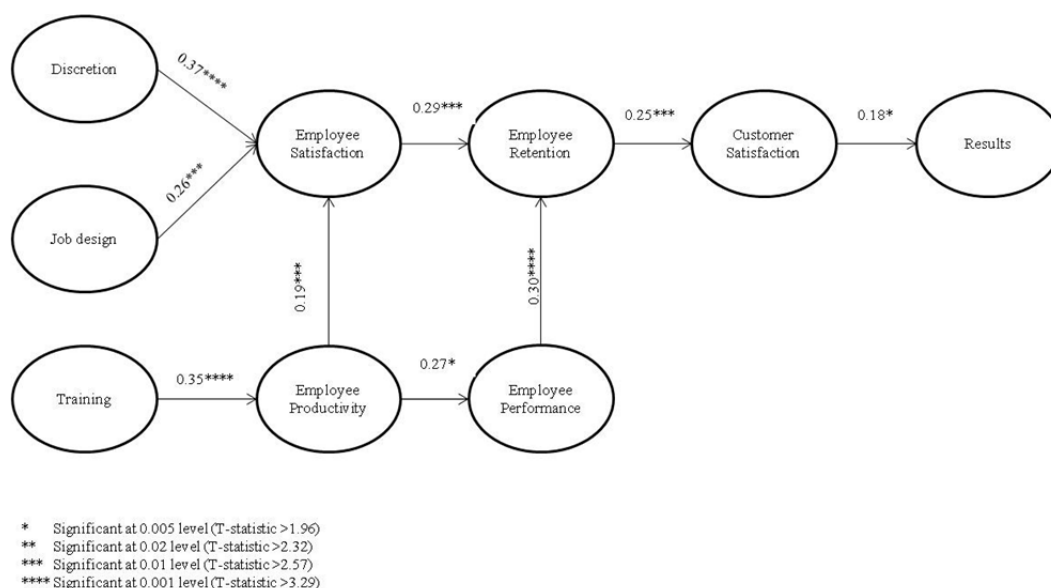


Figure 5.3 illustrates the estimated model, including the path coefficients as well as the t-values obtained from the bootstrapping method in PLS. As suggested by Chin and Marcoulides, (1998), the standardized path should be at least 0.20 in order to be considered meaningful. As we can see in figure 5.3., both, Discretion as well as Job Design, are significantly related to Employee Satisfaction at $p < 0.001$ (t-statistic=3.78) and $p < 0.01$ (t-statistic=2.87), respectively. The effect of Training on Employee Productivity is also significant $p < 0.001$ (t-statistic=3.70). In turn, Employee Productivity is significantly related to Employee Satisfaction at $p < 0.01$ (t-statistic=2.61), as well as to Employee Performance at $p < 0.005$ (t-statistic=2.00). All the same, both Employee Satisfaction (at $p < 0.01$ and t-statistic=2.66) as well as Employee Performance (at $p < 0.001$ and t-statistic=2.81) lead to Employee Retention. Subsequently, Employee Retention leads to Customer Satisfaction at $p < 0.01$ and t-statistic=2.69). Finally, Customer Satisfaction is significantly related to company's results ($p < 0.005$ and t-statistic=1.97).

5.4. CONCLUSION

To sum up, we may conclude that the service-profit chain in Spanish call centres takes a different shape from what was observed in the international database. In this sense, we may highlight that the main model transformation is around the employee satisfaction construct. On the one hand better Human Resources practices, in terms of job design and discretion will improve satisfaction among employees. These results support the Porter and Lawler, (1968) model by confirming that Employee Satisfaction is determined by Employee Productivity, which could be improved through employee training. The more satisfied and productive are the employees, the more they stay with the company and this leads to higher satisfaction among customers. This could be explained by the fact that, in the context of the Call Centre industry, it is important to focus on employee retention, as more trained and experienced agents' leads to greater customer satisfaction. And finally, the results of the company depend on customer satisfaction, which is determined by all the human variables presented in the chain.

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CHAPTER 6

CONCLUSION

6.1 SUMMARY

6.2 CONCLUSION

6.2.1. Customer satisfaction in call centre

6.2.2. Service profit chain

6.2.3. Human Resource Practices

6.3 LIMITATIONS AND FUTURE RESEARCH

6.4 REFERENCES

CHAPTER 6. CONCLUSION

6.1. SUMMARY

The original topic of this thesis was to study the customer satisfaction in the context of the call centre. The existing literature on this topic leads us to conclude that customer satisfaction has been addressed from a range of different viewpoints, but it does not seem to be an important issue for call centre management. In fact, customer satisfaction has been linked to many different groups of indicators, such as managerial strategies, Human Resources practices, employee and system performance. However, most studies address the customer satisfaction concept as part of the whole business process, but do not consider this construct as a central research interest. This evidence led us to look at the whole process from a general perspective and consider the main managerial models that predict performance in companies, such as Lean Technique (Krafcik, 1988), Six Sigma (Henderson and Evans, 2000; Welch et al., 2005), the Balanced Scorecard (Kaplan and Norton, 1992, 1998) and the Service-profit chain (Heskett and Schlesinger, 1994). Most of these models have already previously been considered and tested in the context of the call centre. For instance, Piercy and Rich (2009) showed how the implementation of lean techniques transformed call centre operations and improved employee productivity, customer satisfaction and financial performance. Along the same lines, Robinson and Morley (2006) suggested that managerial goals are in

contradiction with performance indicators, and suggest that call centres can employ the balanced scorecard in order to align financial and non-financial outcomes, and achieve organizational performance. And McAdam et al. (2009) showed that the full application of the Six Sigma model in the context of the call centre would lead to better organizational processes and improved customer experiences. All of the mentioned studies employ a qualitative methodology and focus on how a call centre can improve organizational performance. However, the main limitation is that each of these studies has been carried out in one exemplary call centre, so the results could not be generalized, and some of their strategies may be difficult to transfer to other call centres. We found that the service-profit chain model (Heskett and Schlesinger, 1994), has not previously been considered in the context of the call centre. In addition, the SPC, being based on cause-effect relationships, allows us to carry out a quantitative study and to extract general conclusion that may be applied to the call centre industry. Therefore, our research question derived from the existing literature review as follows:

RQ: Does the service profit chain apply in the call centre sector?

The service-profit chain (Heskett and Schlesinger, 1994), has been tested in a wide range of industries, contexts and countries (Evanschitzky et al., 2011; Maranto and Reynoso, 2003; Yee et al., 2011). However, most of these studies were carried out in traditional service industries characterised by face-to-face interactions between employees and consumers (Papazissimou and Georgopoulos, 2009; Silvestro, 2002; Yee et al., 2008, 2011). Therefore, the present study examined the model in the context of

call centre, characterized by voice-to voice encounters, in an industry that often adopts a low-cost approach to human resource management (Wallace et al., 2000).

Figure 6.1. The main links of the Service profit chain model tested in this study.

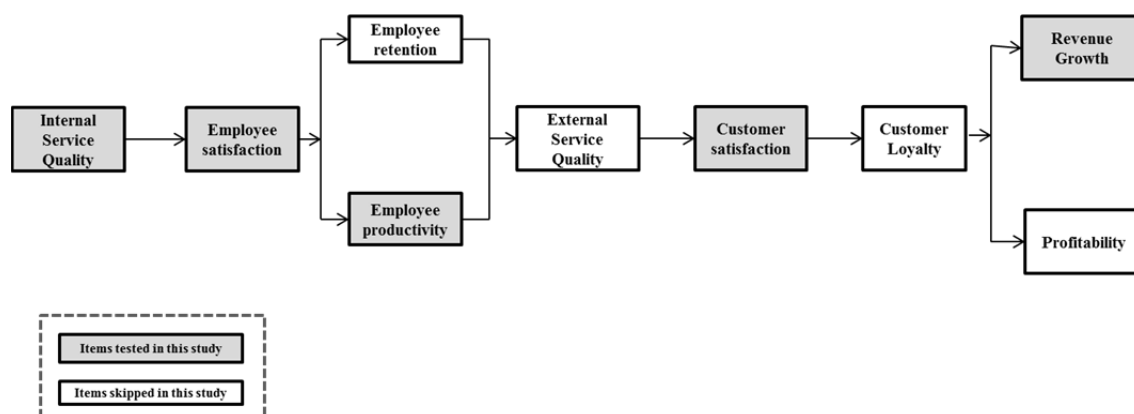


Figure 6.1 shows the service-profit chain model and highlights the main relationships that were considered in our study. Section 3.2 of this thesis explains why some of the constructs were not included in our study. In order to test the applicability of the service-profit chain model to the call centre industry, we carried out an empirical study by employing secondary data gathered from The Global Call Centre Project on call centre Management (Holman et al., 2007) that includes 17 countries. First of all, we tested the service-profit chain model at the local level by employing Spanish data (n=109 cases). In order to estimate the model we employed Structural Equation Modelling (SEM) by using EQS software (Bentler, 1989). Nevertheless, the goodness of fit for the resulting model did not reach the required level. Section 3.3 presents a brief explanation of this (unsuccessful) attempt to test the service-profit chain. At this point, the aim of this study was to find the cause of misfit in the model, which could be either

theory or data driven (Jöreskog, 1993). Therefore, we inferred that these results could be due to three reasons, for each of which we proposed a hypothesis:

H1: The sample size was too small (n=109 cases).

H2: The analytic technique was not adequate.

H3: The SPC model does not work in the Call Centre industry.

Before concluding that our first attempt to test the SPC in call centres failed because of H3 (the SPC does not work in call centres), we should first be able to reject H1 and H2. In this sense, we considered the issues related to H1 and H2, as explained in chapter 4 and chapter 5.

Study 1: Large sample confirmatory modelling

Regarding H1, as we mentioned in chapter four, we tested the model by using the international dataset of 937 cases.

Figure 6.2. The service-profit chain model in the call centre industry at the international level

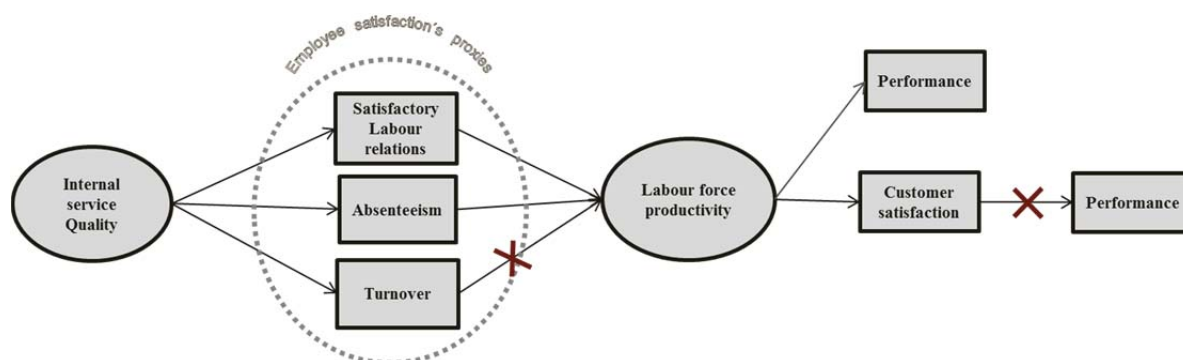


Figure 6.2 shows the main relationships of the service profit chain model that were confirmed using international data. As a result, it seems that the sample size was indeed problematic in our initial study. Small sample sizes are a problem for complex models, especially when employing covariance-based methods, such as EQS software. The findings are particularly relevant, as they suggest that at the international level, in general, the service-profit chain applies to the call centre sector with a number of nuances.

Firstly, the results confirm that even if there are limited possibilities to improve the human resources practices in the call centre, when companies do so, it rewards them in terms of improved employee satisfaction. Secondly, in this study we identified a way of measuring the individual level of employee satisfaction, which is an expensive and difficult measure to be collected, by using generally available organizational data, such as employee absenteeism and turnover (see dotted circle in Figure 6.2.). Thirdly, customer satisfaction is not significantly related to revenue growth in call centres. A possible explanation could be the existence of a time lag between these constructs, or the existence of a “hassle factor” in changing the service provider. Finally, the results show that employee productivity impacts directly, although separately, on both call centre performance and customer satisfaction. This finding of two separate ends of the service-profit chain may reflect the two different managerial strategies which have been identified in the literature: the production line approach (focused on meeting quantitative targets) versus customer oriented approach (focused on satisfying customer) (Gilmore, 2001; Walsh et al., 2012), or the simultaneous pursuit of both.

Study 2: Small sample exploratory modelling

Regarding H2, as we mentioned in chapter 5, we tested the same model with the Spanish data (sample = 109 cases), employing the Partial Least Square, which is a suitable technique for exploratory studies (Lee et al., 2006) and can handle complex models with a small sample size (Chin and Marcoulides, 1998). Initially, the results showed that the prediction capacity of the model was irrelevant. In this sense we introduced some changes in the measurement of latent variables and also some additional path relationships. As the Spanish database provided more available variables, we moved from theory testing to an exploratory study, and identified an alternative model that fits with the reality of the management of a Call Centre.

Figure 6.3. The redesigned service-profit chain model in the Spanish call centre

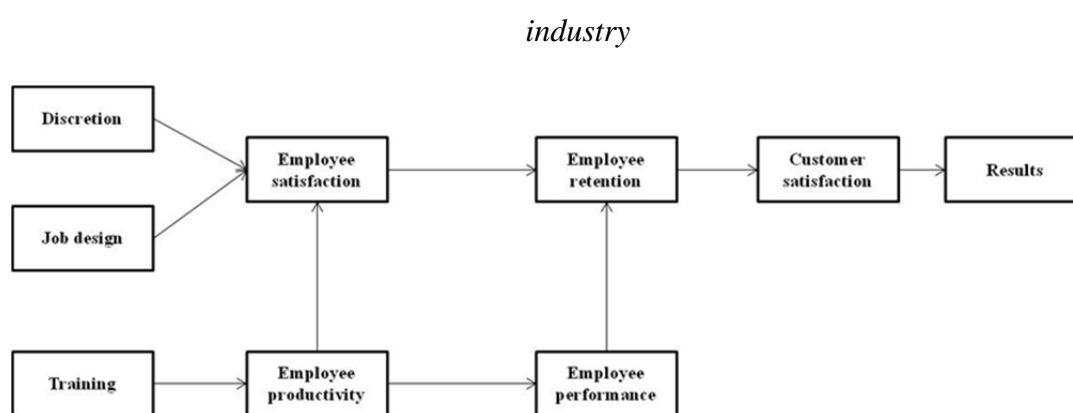


Figure 6.3 shows the model that was obtained from the exploratory study which is explained in chapter 5. Thus, H2 is confirmed in the sense that we did not originally employ an adequate analytical technique to suit the needs or reap off the opportunities provided by our first dataset.

After estimating the model, we may conclude that most of the SPC links were confirmed. We may underline that, as in the original SPC model, positive Human Resource practices impact positively on employee satisfaction. Consequently, employee retention mediates the relationship between employee satisfaction and customer satisfaction.

However, there are a number of nuances that distinguish the SPC in the Spanish Call Centre from the SPC at the international level, and even from the original SPC model. Firstly, and probably most importantly, the results show that it is not employee satisfaction that causes productivity, but indeed the opposite, employee productivity leads to employee satisfaction. Additionally, employee productivity is determined by training. This finding is in line with the Porter and Lawler model, which suggests that employee ability to perform a task (that could be achieved through training), leads to employee productivity (Porter and Lawler, 1968). Secondly, the results of our study suggest that employee performance mediates the relationship between employee productivity and employee retention. In this sense, we may consider that employee retention is determined by both employee satisfaction and employee performance, but we may highlight that a greater part is explained by employee performance. Thus, it may be the case that in the call centre industry employee tenure depends not so much on satisfaction among employees, but on managerial decisions about employee performance. Finally, the results of the call centre depend on customer satisfaction. This final link of the chain is in line with the original SPC model, but is contradictory with the model tested in the call centre industry at the international level.

6.2. CONCLUSION

Traditionally, the service-profit chain has been studied in face-to-face services. After 20 years of studies that test various parts of the service-profit chain as an intuitively logical and loosely confirmed empirical model, current studies should focus on examining the model in a wider variety of different service industries and especially in more varied service interaction contexts. The call centre sector is one such growing non-traditional service industry that has two important peculiarities that make it apt to enhance the explicative capacity of the service-profit chain with which we have contributed in this thesis: Firstly, the call centres represent a context where the service encounter takes place remotely in a technology-mediated environment. In this sense, the service employee and the consumer do not actually meet face-to-face and most services are brief encounters with different employees rather than relationship-based interactions (Gutek, 1999). Secondly, one of the underlying assumptions of the SPC is that investments in human capital will eventually impact on business performance. However, we have examined the SPC in the context of a business model traditionally based on cost cutting, low-road human resource management strategies. This is the first study to examine the service-profit chain in this type of context.

The results of the study 1 and study 2 allow us to reject H3 (the service profit chain does not apply in the call centre industry). Therefore, we conclude that generally, the service-profit chain model does apply to call centre industry with a set of particular features, which will now be discussed, as they inform the literatures of customer satisfaction, the service profit chain model and HR practices in the context of call centres.

6.2.1. Customer satisfaction in call centre

The review of the existing literature reveals that the customer satisfaction has not been the main aim of research in the context of the call centre industry, both in terms of number of studies and the importance of this concept within existing studies. From a marketing perspective, for many decades customer satisfaction was considered the main objective of any company. As a consequence marketing and consumer research centred on developing models around customer satisfaction that were applicable to the traditional service encounter. However, the call centre industry seems to be operating in a different way, with the role of customer satisfaction losing some of its importance, and being prevailed by cost cutting approaches. But even in this new reality, customer satisfaction is still placed at the heart of call centre operation rhetoric.

Customer satisfaction determinants

The literature review suggests that in the context of the call centre, customer satisfaction seems to be related to call centre system performance, in terms of waiting time, routing system, technology complexity (Dean, 2008; Ellway, 2014; Prendergast and Marr, 1994; Whiting and Donthu, 2009), as well as by employee performance, in terms of solving the problem and delivering service quality (Abdullateef et al., 2011; Aksin et al., 2007; Burgers et al., 2000; Cheong et al., 2008; Feinberg et al., 2000; Garcia et al., 2012; de Ruyter and Wetzels, 2000). In addition, the literature highlights the fact that technology and human performance are originated by the call centre managerial approach, which in many cases is focused on the production line approach rather than

on a customer orientation approach (Gilmore, 2001; Piercy and Rich, 2009). In this sense, many authors agreed that a common mistake in call centres is the inappropriate design of their performance metrics by focusing only on quantitative measurements (such as calls answered within target time and abandoned call), in order to achieve both, financial results such as sales or non-financial outcomes such as customer satisfaction (Piercy and Rich, 2009; Robinson and Morley, 2006).

Our first study concludes that customer satisfaction as well as call centre sales are determined by employee productivity, which was measured by quantitative metrics such as abandoned calls and calls answered within target time. In addition, employee productivity explains a greater part of customer satisfaction (0.28) than of call centre sales (0.18). Despite the fact that we have not taken into account qualitative metrics, we can confirm that a part of customer satisfaction is also determined by quantitative metrics. Therefore, we may not agree with the two different managerial approaches identified in the literature (production line versus customer orientation approach), that suggest that production line approach leads only to financial outcomes, and that customer satisfaction can only be achieved through the customer orientation approach. Instead, we suggest that quantitative performance metrics are also contributing to the achievement of customer satisfaction in call centres.

Customer satisfaction outcomes

Little academic research addresses financial or non-financial outcomes in the call centre industry. However, there is some evidence that shows that financial performance is determined by employee behaviour (Jasmand et al., 2012) or the efficiency demands of call centre employee performance (Dean and Rainnie, 2009).

In our study, the relationship between customer satisfaction and financial performance is not confirmed in the case of the international data, and shows very low significance in the case of the Spanish data. This result could be due to a number of reasons.

Firstly, as some authors suggested, there is a time lag between customer satisfaction and organizational performance (Evanschitzky, Sharma, et al., 2012). Therefore, customer satisfaction or dissatisfaction may not be reflected immediately in financial or non-financial performance, but it should be taken into account in the long run.

Secondly, it seems that in the context of the call centre, employees are often dealing with angry and dissatisfied customers (Helms and Mayo, 2008). In this sense, an alternative route to company growth and performance may be managing customer dissatisfaction rather than satisfaction (Levesque and McDougall, 1996). Therefore, as in the call centre sector we may not expect great satisfaction among customers, more efforts should be done in order to minimize their dissatisfaction.

And finally, in the specific context of the call centre, customers, despite feeling unsatisfied, do not necessarily abandon the company because the existence of the “hassle factor” involved in changing the service provider (Panther and Farquhar, 2004).

In other words, it seems that in some situations customers become loyal to a company not because they experience satisfaction, but because they are facing difficulties or additional costs to change the service provider. As a consequence, customer satisfaction or dissatisfaction might not affect call centre financial performance.

Therefore, the conventional wisdom suggesting that customer satisfaction leads to company performance may not be applicable in the specific context of the call centre.

Indeed, in the context of the call centre the interaction between customer and company

is much more complex than in traditional encounter, and require a different approach to customer satisfaction concept.

6.2.2. Service profit chain

The main contribution of the service-profit chain model is that it allows companies to link different elements across the entire business process in order to predict performance. In essence, the model presents a lineal causal relationship between HR practices, employee satisfaction, service quality, customer satisfaction and finally performance. In order to test this lineal model we may measure appropriately each of these constructs. However, some of these items, such as employee satisfaction and employee productivity, present some challenges in terms of finding the suitable indicators.

Employee satisfaction

Regarding the employee satisfaction construct, we may highlight that in the context of the call centre, little academic research addresses the concept of employee satisfaction. In fact, it is suggested that the excessive demanding environment causes stress among employees which leads to employee exhaustion and dissatisfaction (Maddern et al., 2007; Ramseook-Munhurrun et al., 2010), and subsequently to high employee turnover or absenteeism (Poddar and Madupalli, 2012). Maybe the peculiarity of call centre work, limits the possibility to employ the concept of employee satisfaction. Being considered as a specific sector characterized by high level of absenteeism and turnover

(Das et al., 2013; Townsend, 2007), the literature addresses more frequently these employee's outcomes.

Yet, it is noteworthy to point out, that employee satisfaction is a key component of the service profit chain. In addition, it is one of the few constructs of the model that should be measured at the micro level, as most of the constructs are organizational level items. However, many companies do not avail of individual data on employee satisfaction, mainly because this measure is time consuming and expensive to collect. Therefore, in order to overcome this common difficulty, we found a way to substitute the individual level of employee satisfaction with organizational level proxies such as employee turnover, absenteeism and satisfactory labour relations.

Concerning our international study, it concludes that, higher absenteeism drives low employee productivity in terms of calls answered within target time and abandoned calls. Conversely, we have not found a significant relationship between employee turnover and employee productivity. The reason could be that turnover is considered so intrinsic to call centre, that in order to improve productivity, a common practice is to continuously recruit and train new employees (Wallace et al., 2000). In fact, our second study based on Spanish data, confirm that employee productivity is determined by training and not by employee satisfaction.

Employee productivity

Regarding employee productivity, the existent literature suggests that this construct could be measured in different ways, but it may encompass some essential elements, such as: time standard, task to be performed, the main objective of the task and of course cost control, which should be in line with the company policies and purposes

(Nance and Nolan, 1971). In our case, initially we measure employee productivity by abandoned calls and percentage of calls answered within target time. These measures hold accurate in the case of the international study. However, in the case of Spain (exploratory study), these two indicators presented some inconsistencies and we ended up measuring employee productivity by number of calls an employee handles per day. This difference in scale measurement could be due to a number of reasons.

Firstly, considering that each call centre could have a different purpose or internal management, the performance metrics or expected employee productivity could also vary. For instance, there is some evidence that in the case of outsourced call centres, these metrics are determined by the type of contract between the parent company and the call centre (Ren and Zhou, 2008), and could go around “pay per call attended” or “pay per call resolved”. As our sample embraces different type of Call Centres (in-house, outsourced, inbound and outbound), we did not take into consideration these organizational differences, but in the international study, outsourced call centres represented only 30% of the cases versus 52% in the Spanish study. Therefore, it could be that for outsourced call centres, it would be more appropriate to measure the productivity by number of call answered per day, rather than by abandoned calls.

Secondly, addressing the second indicator “number of calls answered within target time”, it could be the case that in the Call Centre industry, agents make use of Parkinson’s Law, which states that “work expands so as to fill the time available for its completion” (Parkinson and Osborn, 1957). In other words, when employees realize that they can extend their task and double the work time, they will do so (Nance and Nolan, 1971). It implies that there also could be some cultural or diversity aspects involved in defining performance and productivity metrics.

6.2.3. Human Resource Practices

In terms of HR strategies, the call centre industry is often characterised as a sector that usually adopt a low-cost approach to human resource management (Fernie and Metcalf, 1998; Taylor et al., 2002; Wallace et al., 2000). These sacrificial HR practices are on average comprised of task orientation or employing quantitative metrics in order to measure employee performance, which are the main drivers of employee turnover and lack of commitment (Connell et al., 2009; Wallace et al., 2000).

Therefore, in order to deal with these negative outcomes, the literature suggest that call centre managers must consider improving job quality (Batt and Colvin S., 2011; Marr and Parry, 2004; Wood et al., 2006), by accounting for dimensions such as group autonomy, decentralized problem solving and discretion (Hutchinson et al., 2000; Piercy and Rich, 2009).

Both of our studies confirm that positive HR practices will decrease turnover and absenteeism. Although some studies suggest that there are different types of jobs in call centres (Marti-Audi. et al., 2013), typically call centre work is stereotyped as low quality (Bain et al., 2002). Also, it is widely assumed that teamwork does not exist in the context of call centres, as it is designed to benefit only managers and facilitate staff control (Broek, 2004). Therefore, our finding is particularly relevant for this sector as it suggests that even if there is limited room to improve job design and HR practices, when companies do so, it pays off in terms of improved employee satisfaction (Batt and Colvin S., 2011; Kinnie et al., 2000). In addition, this is an inter-disciplinary study that

confirms the relationship between different subjects, such as Human Resource and Marketing.

6.3. LIMITATIONS AND FUTURE RESEARCH

There are a number of limitations of this study that should be noted.

Firstly, as we employed secondary data, we did not avail of data corresponding to the entirety of service-profit chain. Indeed, the original data collection template was not undertaken with the service-profit chain in mind. Nevertheless, the broad range of management practices that the Global Call Centre Project includes was sufficient to carry out the study. In future studies, we recommend the use of a survey questionnaire specifically designed to study the service profit chain. We showed that the service-profit chain is relevant for the call centre industry, but there are some differences that lead us to employ specific metrics. In this sense, future research may also consider to develop measures of service quality that are specific to call centres. This might include metrics related to the quality of voice to voice and voice to technology encounters (Dean, 2008; Ellway, 2014), customer orientation, etc., in line with a tried and tested service quality measurement tool (such as SERVQUAL), but adapted to the specific context of call centres.

Secondly, data for the various parts of the chain were collected at the same time, but there are difficulties involved in determining causality with cross sectional data (Yang, 2012), particularly in the company performance links of the service profit chain (Evanschitzky, Wangenheim, et al., 2012). Therefore, future research may consider

collecting the data at different points in time, specifically for the items related to organizational performance.

Thirdly, this is an organizational level study that gathers data from a single respondent. While this has some inherent advantages in terms of internal coherence and access to a knowledgeable informant, maybe future research should consider testing this model by collecting the data at different levels (at least at employee and organizational level), and obtaining the data from various informants, such as employees, customers and call centre managers. In fact, even the individual call centre as a unit of observation and analysis could be reconsidered. Although many call centres work as an independent business unit, some are parts of a larger organisation, and some may operate as a wider network where, in order to service one single customer, various call centres are connected and work together in order to provide a single service, depending on the questions or processes that the client needs.

Fourthly, the design of the study did not control for national differences or other categorical variables, such as differences among different type of call centres (in-house vs. outsourced, inbound vs. outbound). Considering these possible differences, control variables such as these could be used in future studies.

Fifthly, this study, as well as the original service profit chain model, does not consider that the relationship between employee satisfaction and customer satisfaction could also be reciprocal. According to some authors, it seems that customer feedback, in terms of recognition or abuse, can generate satisfaction, dissatisfaction, or emotional dissonance among employees (Litte and Dean, 2006; Poddar and Madupalli, 2012; Wegge et al., 2007). For example, when employees are dealing with problematic or demanding customers, the negative customer's feedback is perceived as lack of recognition, which

in turn leads to employee dissatisfaction or burnout. On the contrary, customer appreciation can generate satisfaction. So, the relationship between customers and employees is mutual, and depending on the interaction, satisfaction can be achieved by both parts, or neither of them. Therefore, future research should draw on the contributions that have been made into phenomena such as customer rage and incorporate them into studies that consider both directions simultaneously.

Finally, further research should endeavour to examine the entire service-profit chain in this and other sectors that present novel characteristics not present in traditional services. Additionally, emphasis should be placed on examining the final stages of the chain, particularly the link between customer satisfaction and company performance, which produced some intriguing results in the present study. In this sense, this topic merits further research on the alternative explanations outlined above. The present study questions the precise nature of the relationship between call centres and their clients in terms of the ability or even desirability of call centres to generate customer satisfaction. This presents a number of challenging questions: Is customer satisfaction different in call centres? What role does dissatisfaction play? Should we even consider call centres capable of generating satisfaction? Or should they simply be concerned with avoiding dissatisfaction? If, as this study suggests, customer satisfaction does not necessarily lead to improved performance, how do we justify efforts aimed at improving customer satisfaction in call centres? Are business performance and customer satisfaction separate outcomes in business models such as those present in call centres? Are quantity and quality a trade-off or simultaneous objectives? How should services find the balance between acceptable levels of each? Future studies on these questions should determine

who should be considered the real client of the call centre, the end consumer or the company that employs the call centre to provide services to its own consumers.

6.4. REFERENCES

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