Service Improvement in Call Centres

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Abstract

The call centre industry relies upon technology; the conventional speech telephone, to serve customers. Call centres do not exist for the customer to physically interact with, apart from via the telephone, and are in effect virtual organizations. Hence, the criteria used to assess the service is different from a face-to-face service encounter. Whilst call centres have benefited customers, by increasing the time period that services are available, there is also evidence that it has frustrated them. This research aims to explore the contribution technology has made to service improvement in this emerging virtual servicescape.

Key words: Call Centres, Technology, Service Quality, Australia,

Introduction

Call centres are on a growth trajectory around the world (Tolhurst, 2000b). The call centre industry is one of the most rapidly growing industries in the developed world today (Sewell-Staples, Dalrymple and Phipps, 2003; Houlihan, 2001). Call centres are centralised, concentrated, routinised tele-based operations (Houlihan, 2001) that can be broadly classified as:

· Outbound call centres - primary activities are telemarketing and sales
· Inbound call centres - primary activities are customer service; transactions, complaints and inquiries

The Australian Call Centre Locations Study (1999) defines a call centre as:

“an operation that uses telephone and computer technology to deliver services to customers. It is comprised of people whose primary dedication function is to respond to telephone traffic, either inbound or outbound. These call centres are structured environments and are physically characterised by the dedication of four or more telephone agents to handle this telephone traffic”.

Dean (2002) comments that “call centre workers are often low skilled and low paid service workers using telephones and computers simultaneously and they respond to customer requests within a tightly controlled, heavily monitored and time-restricted system”.

Call Centres in Australia

Call Centres are a relatively new form of work organization in Australian and an important part of the New...
Economy. Because they are part of a rapidly emerging and expanding virtual industry, estimates on size and numbers employed are difficult to ascertain. However, the following statistics do provide some insight into the size of the phenomenon in Australia. Literature suggests that there are currently more than 4,000 call centres with an average of 28 seats per centre employing around between 160,000-220,000 people in Australia (Kjellerup, 1999; Marshall, 2000; Hannen, 2001; Todd, Eveline, Still & Skene, 2003; Van Den Broek, 2003; Head, 2003). Head (2003) suggest that of the 4000 about 360 are operated by third parties that is they are outsourced (Head, 2003).

**Technology in Call Centres**

The idea of centralised telephone service that underpins the call centre is not new. Operator services, reservations and advice lines have a long history (Houlihan, 2001). A traditional call centre was basically a large room with switches, a PBX phone switch, and desks of service representatives taking calls over the phone (Mitchell, 2000). Mitchell (2000) explains that customers in many cases endured long response times, had to repeat information such as account numbers or descriptions of the problems and this resulted in frustrated customers. There is little evidence to suggest the development of the modern call centre has improved the quality of service being provided (Crome, 2001; Gilmore, 2001; Bennington, Cummane and Conn, 2000; Wallace, Eagleson and Waldersee, 2000).

The modern call centre emerged in the late 1980’s, early 1990’s and does not appear physically dissimilar to the traditional call centre Mitchell (2000) described. The major difference has been the technology driving service delivery which has enabled email, web chat, Voice Operated Interactive Phone as well as the traditional forms of fax and telephone (Mitchell, 2000; Anton, 2000). The calls are processed and controlled by an automatic distribution system (Dean, 2002) which directs incoming calls to waiting operators that can be interstate or overseas. Anton (2000) states that in this migration, call centres are being fitted with the latest in high-tech hardware and software in both voice and data applications, and in addition, the focus is moving from mostly telephone calls to all forms of customer access including e-mail, fax-mail, kiosk, and the Internet (Anton, 2000).

**The Pervasive and Virtual Nature of Call Centres**

Call centres have now pervaded everyday life and become increasingly difficult to avoid with many organisations now conducting business via call centres. As consumer demand for flexible access to products and services grows, it seems certain that, in the short to medium term, call centres will be used ever more widely (Creagh, 1998). As the costs of setting up and running call centres decreases, medium-sized companies will increasingly adopt call centres as an adjunct to their sales and support services (Creagh, 1998). As financial barriers to entry have decreased, the range of services offered via inbound call centres has expanded from banking, public utilities, airlines, information
technology, product support and telecommunications (Head, 2003) to insurance, government services; post, health and social security, home loans, home shopping, travel, reservations, preferred customer clubs and many more.

Staples, Dalrymple and Bryar (2002) highlight the virtual nature of service delivery because of the absence of tangibles. Call centres do not exist for the customer to physically interact with, apart from via the telephone, and are, in effect, ‘virtual operations’. Call centres are situated remotely, not just from their customers, but usually from the rest of their organization’s various functions and departments (Houlihan, 2001). Call centre services are conducted ‘virtually’ over the phone and services can be delivered from locations anywhere in the world. Many organisations now providing customer service and support via call centres, due to the perceived lower cost of operating, are still grappling with how to best manage their call centres. Whilst the advancements in technology have improved the management of call centres for the organisations operating them, has the technology improved the service for customers?

**Service Quality**

The unique characteristics of services mean consumers employ different evaluation processes than those that they would use with goods and may make them more difficult to evaluate than physical goods (Zeithaml, 1981). What a service delivers is evaluated after performance (Swartz and Brown, 1989 p.190 cited in Asuboteng, McCleary and Swan, 1996). Service quality is by nature a subjective concept. The conceptualisation and measurement of service quality has been one of the most debated and controversial topics in the services literature to date (Brady and Cronin, 2001). There have been many models of service quality proposed; Parasuraman, Zeithaml and Berry (1985), Gronroos (1990), Lehtinen and Lehtinen (1991), Rust and Oliver (1994), Brady and Cronin (2001). The 2 approaches to have received the most attention in the literature are; 1) the Nordic perspective (Gronroos, 1990) which defines the dimensions of service quality in global terms as consisting of functional and technical quality (Brady and Cronin, 2001); 2) the American perspective (ZPB, 1990) uses terms that describe service encounter characteristics (i.e reliability, responsiveness, empathy, assurances and tangibles) (Brady and Cronin, 2001).

**Nordic Perspective – 2 Factor**

Gronroos (1990) proposed that what was needed was a model of service quality – how quality of services is perceived by customers. When the service provider understands how the services will be evaluated by the users, it will be possible to identify how to manage these evaluations by the users (Gronroos, 1990). Basically, the quality of a service perceived by customers has two dimensions, namely a technical or outcome dimension and a functional or process-related dimension (Gronroos, 1990). In summary the customer is also influenced by how he or she
receives the service and how he or she experiences the simultaneous production and consumption process (Gronroos, 1990). The total perceived quality is not determined by the level of the technical and functional quality dimensions only, but rather by the gap between the expected and the experienced quality (Gronroos, 1983a, 1984 cited in Gronroos 1990).

**American Perspective - SERVQUAL**

Service Quality perceptions result from a comparison of consumer expectations with actual service performance (Parasuraman, Zeithaml and Berry, 1991). Quality evaluations are not made solely on the outcome of service; they also involve evaluations of the process of service delivery (Parasuraman et al., 1991). Service quality is defined by consumers as the discrepancy or gap between their perceptions and expectations. The five dimensions upon which customers evaluate service quality are

- **Tangibles** – the appearance of the physical facilities and materials related to the service
- **Reliability** – the ability to perform the service accurately and dependably
- **Responsiveness** – the willingness to help customers and provide prompt service
- **Assurance** – the competence of the system and its security, credibility and courtesy
- **Empathy** – the ease of access, approachability and effort taken to understand customers’ requirements

**Re-conceptualising Perceived Service Quality**

Brady and Cronin (2001) propose a convergence of the Gronroos (1990) and PZB (1991) approaches to conceptualising of service quality. Brady and Cronin (2001) have considered service quality as consisting of three components (similar to Rust and Oliver, 1994) and added a third one – service environment to Gronroos’ two dimensions of technical quality (service outcome) and functional quality (customer-employee interaction). Brady and Cronin (2001) suggested that each of the primary dimensions of service quality (interaction, environment and outcome) has three sub dimensions, and customers aggregate their evaluations of the subdimensions to form their perceptions of an organization’s performance on each of the three primary dimensions.

**Satisfaction**

There appears to be no consensus in the literature on how the constructs satisfaction and service quality are related. Some propose satisfaction as an antecedent of service quality whilst others propose the reverse. Johnston (1994) comments that “a customer’s satisfaction with individual service encounters, affects the customer’s dis/satisfaction with the overall service experience”. Johnston (1995) investigates the ‘zone of tolerance’ - which PZB (1991)
described as the range of service performance that customers consider satisfactory. Johnston (1995) concludes from his work, in the banking sector, that the main sources of satisfaction are attentiveness, responsiveness, care and friendliness, whilst the main sources of dissatisfaction are integrity, reliability, responsiveness, availability and functionality (Johnston, 1995). He also concludes that satisfiers and dissatisfiers do not necessarily have the opposite effect (Johnston, 1995). For example, if a customer is forced to wait for a long time then they might be dissatisfied, but if a customer does not wait a long time they are not necessarily satisfied. Johnston (1995) further highlights that while the absence of satisfiers may not necessarily infuriate customers the presence of them can delight customers.

**Australian Business Excellence Framework**

In 2002, Standards Australia purchased the rights to the Australian Business Excellence Framework (ABEF) from the now defunct Australian Quality Council. The model was developed, in 1987, to help Australian enterprises become more effective, efficient and competitive (ABEF, 2004). The framework focuses on seven critical success categories within an organisation. Under Category 6; Innovation, Quality and Improvement; Item 6.4, Quality or Products and Services, the processes the organisation uses to supply quality products and services to its customers, and the processes used to improve these products and services is examined. Organisations operating call centres may also aspire to business excellence and may be assessing their performance via the ABEF. The framework contains the means for assessing the quality of services an organisation provides and its plans for improvement.

**Data Collection**

A telephone based quantitative experimental approach was employed to replicate a call centre service encounter. A list was generated from Whitepages phone directory of organisations that were listed with toll free 1300 or 1800 numbers. Calls were made to organisations on the list recording;

*What was the first point of contact?*
  - Direct to Operator,
  - Queuing, or
  - Interactive Voice Response (IVR)

It was also recorded if there was a second system in place
  - Yes/No.

*If there a second system?*
  - Queuing, or
  - Interactive Voice Response (IVR)
If there wasn’t a second system was it ‘Direct to Operator’ after first point of contact?

· Yes/No

If the call went to an IVR, how many levels/layers the customer had to navigate before reaching an operator. All the options were listened to, until it was discovered what button to press in order to speak an operator. The assumption of the research is that the caller is trying to navigate a path to speak to an operator in the quickest manner possible. All calls were timed (seconds); the time taken to reach an operator was recorded.

Results

In total 93 call centres were sampled from 57 organisations.

<table>
<thead>
<tr>
<th>First point of contact</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct to Operator</td>
<td>19</td>
</tr>
<tr>
<td>Queuing</td>
<td>11</td>
</tr>
<tr>
<td>Automated</td>
<td>64</td>
</tr>
</tbody>
</table>

**Direct to Operator**

19 direct to Operator (19/93 = 20.4%); mean call time = 9 (seconds); range: quickest 4 (seconds) slowest 23 (seconds)

**Queuing**

11 calls went straight in to a Queuing system (11/93 = 11.8%); mean = 96; range: 35 - 303

10/11 were straight to operator after queuing, (mean = 99 seconds) while 1 went to IVR. American Express had a navigation option that allowed you to leave a message and be called back later, or hold to speak to an operator. This call took 68 seconds to reach an operator.

**Interactive Voice Response (IVR)**

61/93 went to an Interactive Voice Response (IVR) (65.5% of total sample of 93)
One level

33 (35.5%) required one level to be navigated before reaching an operator; mean = 65 seconds; 26/33 (28%) went straight to operator after navigating one level; mean = 54 seconds
7/33 (7.5%) to Queuing after 1st POC; mean = 107 seconds

Two levels

23/93 (20.7%) required two levels to be navigated before reaching an operator;
11/23 went directly to an operator after navigating the two layers; mean = *73 seconds. *This is excluding an Optus call result of 1,195 seconds as it was felt this was outlier would skew the results
12/23 went to Queueing system before going to an operator; mean = 167 seconds

Three Levels

7/93 (7.5%) calls required three levels of navigation; mean = 192 seconds
2/7 calls went direct to operator after successfully navigating three levels; mean = 72 seconds
5/7 went to Queueing systems after successfully navigating three levels, with a mean = 240 seconds

Five Levels

1 call required 5 levels to be successfully navigated before being placed in a Queueing system and took 261 seconds to reach an operator.

Discussion

The nature of the service encounter between the call centre and customer is predominantly undertaken using enabling technology; the conventional speech telephone. The use of technology to serve customers is growing rapidly (Parasuraman, 2000). Parasurman (2000) comments that: “the role of technology in customer-company
Quality in the 21st Century

interactions and the number of technology-based products have been growing rapidly”

Results from our study support this with 80% of the calls made going either to an Interactive Voice Response (IVR) system or to a Queuing system as the first point of contact. It has been estimated that call centres now handle 69% of customer contacts for organizations (Yelland, 2003). This provides some insight into the importance of call centres for the organisations operating them. How many levels and options is it possible to make customers listen to and navigate before they get annoyed? Yelland (2003) suggests that poorly designed IVR, can quickly erode customer confidence and that simplifying the menu, with a suggested maximum of three options and two levels so that users won't get lost. From the results it can be seen that 87.5% of calls that went to IVR customers were able to navigate their way to an operator in one or two levels. Of the 8 calls that did not go directly to an operator after navigating two levels, seven were able to get to an operator after navigating three levels and one call required five levels to be successfully navigated. An issue for navigating the IVR, is the complexity of technology and technology readiness on the part of the user. Given that call centres utilise standard telephone technology and customers are now becoming increasingly experienced using the buttons on phones. It is likely that each generation will become more and more.

The ease of use in trying to get what you want – validity of the service

Yelland (2003) also advises to keep an escape hatch available; every caller must be able to get connected with a live operator at any time. One call to American Express had a Queuing system allowed the customer to leave their details and have an operator call them back later.

In the case of face to face encounters, people can create quality perceptions relating to the physical characteristics of the contact employee and the environment where the service takes place (Burgers, de Ruyter, Keen, and Streukens, 2000) Interaction by telephone restricts the evaluation of the service delivery to such an extent that consumers will have to base their perceptions solely on the interpersonal traits of the contact employee. (Burgers et al., 2000)

The SERVQUAL model was purported to be a generic model of service quality, but given the absence of tangibles in the call center ‘virtual’ service encounter and the difficulty in assessing reliability its portability to the virtual organization has to be questioned. The responsiveness dimension of the SERVQUAL model is where the recent advancements in technology of the call center could be expected to have had the most impact. However, evidence from our study suggests that 80% of calls do not go directly to an operator as the first point of contact and so the responsiveness of the service has not improved with the improvements in technology.
Johnston (1994) contends that a service that causes a customer to neither be dissatisfied or very satisfied falls in to the zone of tolerance that a customer will tolerate. When you assess the responsiveness dimension of SERVQUAL against the dis/satisfiers conceptualization proposed by Johnston (1994) we can suppose that an unresponsive call centre service will dissatisfy customers. However, a responsive service will not necessarily satisfy customers and is unlikely to delight them unless there is the presence of other satisfiers. As the telephone is able to be answered immediately, customers expect fast response times and become impatient while waiting in queues. If a customer is forced to wait, the service offered is often tarnished by the presence of this dissatisfier. Johnston (1994) contends that it is often easier to add satisfiers to a service than it is to remove dissatisfiers.

The evaluation of a service often depends on the evaluation of the ‘service encounter’. That is the time the customer interacts with the firm (Johnston, 1994). Whilst, in a services context the “product is often the employee’s performance” (Berry, 1981). There is especially true in the call center industry when all the customer has is the operators voice and operators contribute a significant amount of emotional labour when being helpful, friendly and empathetic to customers (Wallace et al, 2000).

The industry started out as a lower cost solution to a relatively expensive problem, where productivity was the focus rather than customer demands. Studies have found that call centre operators are often required to answer a great number of calls regardless of the quality of the call as they are judged on how quickly they deal with the inquiry (Denny, 1998; MacDonald 1998a, 1998b, cited in Gilmore, 2001). In this case the service becomes focused on efficiency measures and not effectiveness measures. The focus on efficiency appears to be attempting to address the responsiveness element of service quality, but it seems that the dissatisfier component of responsiveness in long wait times is not being addressed. Once a call has been answered literature suggests it would appear to be more about the operators ability to convey the satisfier elements of assurance and empathy.

Efficiency is important since call centers must provide speed of delivery and operate at a low cost to remain competitive. To achieve efficiency, many call centres have focused on the implementation and use of technology (Mehotra, 1997, Green, 1996, Tissor, 1995, cited in Gilmore, 2001). The technology is often used to facilitate the physical concentration of staff, labour scheduling, staff monitoring and high productivity rates (Gilmore, 2001) and not adding value for an organisations customers.

**Conclusion**

The use of technological solutions to improve customer service is rapidly growing. The call centre industry is an example of this where standard telephone technology is used to provide service. Call centres have made a
contribution to service quality improvement, for the organisations that operate them, by increasing the time periods during which many services are now available for customers. The contribution of technology has been to enable access from remote locations and largely around the internal organisation and operator of the service for the call centre. Taking the dimensions of various service quality models into account the contribution that technology has made to improving the service is limited. The area in which the call centre might make its greatest contribution is in the area of responsiveness. Results from this research do not suggest that technology has made a great impact on responsiveness. It has made little contribution to improving the service encounters interaction quality (empathy and assurance). When a customer’s requirement is to actually speak to an operator, then the focus on improving the time availability of the service is the only improvement in the service.

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