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'Call' Centres to 'Contact' Centres: Shifting Paradigms of Customer Service Systems and Research

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This paper explores and compares the existing paradigm of 'call centres' as simplistic service functions underpinned by Taylorism with, the emergence of 'contact centres' as complex customer service systems. Such emergence has been briefly highlighted in the literature however, with little attention to the additional complexity and challenges on service design and delivery as a result of this shift. Through examination of literature and in-depth conversations with practitioners, the research has found that there is a further scope of exploration of contact centres beyond service delivery channels. Organisations have to re-consider service design and its implications on service management through fresh perspectives.

1.   Background

Indeed, as the call for papers to 23rd Annual RESER Conference 2016 indicates, the shift from product-based business models to networked and service-based business model has led to the emergence of Service Ecosystems. Central to this emergence is the view of services as distinctive economic activity today, than just derivative of manufacturing (Burgess and Connell, 2005). Since the late 1990s, there has been a progressive structural transformation of modern economies. The contribution of services to the UK economy has increased from 46% in 1948 to 77% in 2015, whereas manufacturing has decreased from 42% to 10% in 2015 (ONS, 2016).

Consequently, there has been an emerging emphasis on service research. The last 15 years have been quite successful for service field to have benefited from combined efforts of both industry and academia leveraging exploratory opportunities for service scholars. The inter-disciplinary initiative called Service Science, Management and Engineering (SSME) by IBM Almaden Research Centre in 2004, is one of the prime exemplars of such efforts, followed by the increased visibility of service related communities of practice and specific conferences relating to service research. Such initiatives have not only established a platform for emerging service scholars like myself, but have also challenged the manufacturing led research agenda, from service scholars in the past.

Despite the velocity of growth in service activities and research, there is a view that research on services is still pre-mature and anecdotal. For example, Moussa and Touzani (2010:198) highlight in their review of service research of 18 years (from 1993 to 2010) that service research is still based on speculations than real facts. Also, they state that whilst the aforementioned inter-disciplinary efforts are appealing, they have also imposed further challenges in attaining consensus on terminologies

and concepts within the service field. These are strong claims. I am of the belief that the very rationale of inter-disciplinary, multi-disciplinary or cross-disciplinary exploration of services has allowed better contextualization of services without which, it would always be a challenge to understand any service, given its fuzzy nature. Nevertheless, I am in partial agreement with their view about the anecdotal nature of service research, only because of the 'strategic drift' that exists between the industry practice and theory. In other words, academia has often not been able to keep pace with service innovations, market maturity and, practice, either due to the pace of the change itself or due to the inaccessibility of academia to the industry.

The purpose of this paper is to exemplify such 'strategic drift' in specific service environments, Call Centres through the preliminary findings of ongoing doctoral research. In particular, the paper discusses two key areas: one being the existing paradigm of Call Centres that are consistently reported and undermined as taylorist organisations (Shankar and Kasturi, 2006; Hudson, 2011) and; Second, the emergence of contact centres as complex service systems of *customer service ecosystem* (please refer to the definition of contact centres later in this paper).

The paper is structured firstly, to narrate the existing paradigm of call centres and secondly, to narrate the emerging views in reference to contact centres. In particular, it highlights the similarities and contradictions between the two paradigms at high level, by discussing the findings in conjunction with inter/multi/cross disciplinary literature, and establish grounds for further analyses.

2. Call Centres

Taylor and Bain (1999) defined call centre as

"a dedicated operation in which computer-utilizing employees receives inbound, or make outbound telephone calls, with those calls processed and controlled either by an automatic call distribution (ACD) or predictive dialling system".

Fundamentally, call centres are virtual set ups of what were traditionally the after sales service functions of manufacturing organisations, engaged in offering support post sales of products (Patelli et al. 2004). It encompassed activities such as customer care (e.g. administration and billing), technical support and other product-specific services (Goffin and New, 2001). After-sales services shared traditional characteristics of services, especially the heterogeneity and labour intensive nature. As a result of this, although necessary to business, they were often perceived as cost overheads due to high labour costs and hence, high cost to serve (Lele, 1997).

2.1. Types of Call Centres
Today, Call centres span across a range of industries including travel, telecommunications, banking, energy utilities, and government administration (Bishop et al. 2003). Similar to Goffin and New (2001), Robinson, Kalakota and Sharma (2005) categorise five main activities of call centres namely, Account Administration, Marketing, Sales, Technical Support and Customer Analytics. Further, these activities might be performed in isolation, as different call centre functions, or blended with one or more activities (multi-skilled call centres) (Gans et al. 2003).

Call centres are also classified on the basis of customer segment being served, that is, whether call centre is serving another business(es) (business-to-business) or retail or individual consumers (business-to-consumers) (Miciak and Desmarais, 2001). Call Centres are also distinguished according to their distance from the supply chain of parent organisation, such as in-house or outsourced or according to the geographical distance from the parent organisation, such as captives (in-house offshored) or off-shore-outsourced call centres, respectively (Metters, 2008).

Given the wide scope of Call Centres, their classification according to the industry, sector, activities, customer segments, or in terms of their geographical/organizational dispersion from the value chain of the firms, has been a continual challenge (Houli-han, 2001). As always been the case with services, "though classification schemes help in differentiating various categories of service, it is the nature of service operations that is still fuzzy" (Kasturi, 2004:21) and Call centres are no different. Nevertheless, the above discussion is summarized in Table 1 to propose comprehensive and inclusive classification of call centres using 7 key dimensions.

Dimension of Classification	Author(s)
The type of service delivery (e.g. inbound call handling, outbound call handling)	Taylor and Bain (1999) Brown and Maxwell (2002)
Type of customers being served (Business-to-Business or Business-to-Consumer)	Miciak and Desmarais (2001)
Industry of operation (e.g. consumer products, financial services, tourism/transport, remote shopping, telecoms, entertainment)	Brown and Maxwell (2002) Bishop et al. 2003
The type of activity performed or service provided (e.g. telemarketing, telebanking, product sales, information service, account administration, billing and payments, after-sales technical support services)	Brown and Maxwell (2002) Robinson and Kalakota (2005) Goffin and New (2001)
Production models (Mass production, professional services, mass customization)	Batt and Moynihan (2002)
Single Skilled or Multi-skilled	Gans et al. (2003)
On the basis of outsourcing and offshoring	(Metters, 2008)

Table 1: Summary of Classification of Call Centres (Consolidated by the Author)

2.2. Current Narratives of Call Centres
In the last two decades, the literature on call centres research has been emerging and overwhelming. Whilst the discussion of *all* the narratives is out of scope for this paper, this section summarises two specific strands relevant to this study. Of these, call centres as modern exemplars of taylorism, is central to the themes discussed in the literature thus far.

Similar to after-sales, call centres have often been labelled as 'necessary evil' environments characterised by low-skilled, routinized work practices, designed using the principles of scientific management (Breathnach, 2000). Pioneered by Frederick Winslow Taylor in the early 19th century, scientific management aimed at organisation of the tasks and workforce in the manufacturing environments by:

- Designing the work practice using scientific laws, that is most efficient and profitable to the employer;
- Train the workforce to learn the designed work practice;
- Monitor the workforce to ensure that the designed work practice is being adhered to and,
- Ensure equal division of work and labour to perform the designed work practice (Taylor, 1911).

In call centres, scientific management or *Taylorism* is evident in two forms: serving high volume of customers through standardised service delivery and, achieving managerial control over employees through de-skilling and monitoring (Peaucelle, 2000). The literature available on call centres extensively exemplifies the prevalence of Taylorism in call centres. Examples include standardisation of service processes through prescribed workflows and scripted conversations (Miciak and Desmarais, 2001), electronic surveillance of front line employees (Robinson and Morley, 2006), extensive activity based and skills based division of labour (Gray and Durcikova, 2005), real-time scheduling and forecasting of calls (Aksin et al. 2007) and, real-time measurement, monitoring and management of performance indicators (Dossani and Panagariya, 2005).

In addition, some authors have also intertwined Braverman's labour process theory and Foucalt's conceptualisation of panopticon with Taylorism to emphasise the exemplification of intensive work organisation, de-skilling of workforce, and electronic surveillance in call centres (For example, see Fernie and Metcalf,1998). As a result, call centres have been often labelled as *electronic sweatshops*, *battery farming*, *assembly line in the head*, or even *factories of the 21ˢᵗ century* (For example, see Shankar and Kasturi (2006) and, Hudson (2011)). Some have even gone as far as generalising this view, stating that all call centres are *the same*, sharing similar traits and characteristics, regardless of activity type, organisation, or sector (For example, see Breathnach, 2000).

A closely discussed theme with above, is the managerial implications associated with call centres as a result of above practices. Some of the prominent strands include quantity-quality conflict in call centres (Dean and Rainnie, 2009), human resource challenges such as coping with stress, burnout, emotional exhaustion and hence, high turnover of employees (Deery et al. 2010), managing resistance and counter-productive behaviours of employees as a result of taylorist practices (Mullholland, 2004), trade-union dynamics with call centres (Bain et al. 2002), and most importantly, managing service quality amidst above challenges (Jack et al. 2006).

The attributes of scientific management and its related advocates mentioned earlier are also seen as enablers of outsourcing and offshoring of call centres (Brown et al. 2011). Technological advancements and the power of computing have allowed organisations to reduce complexities imposed by heterogeneous service characteristics on service management, which restrained the measurability and tradability of ser-

vices in the past (Bryson, 2007). Taylorism is vital instrument of standardization of performance based sourcing, which compounds cost benefits in addition to labour arbitrage, cheaper infrastructure, and cheaper technology (Burgess and Connell, 2004). Thus, call centre services that are complex and non-standard could benefit from economies of scale and could be internationalized.

Outsourcing and offshoring implications have been of keen interest (especially the latter). To date, offshoring of call centres has been widely discussed exemplifying India (D'Cruz and Noronha, 2007), Ireland, Philippines, South Africa (Kinnie et al. 2008; Benner et al., 2007), and countries in Western and Eastern Europe (Connell and Burgess, 2006). Common themes include drivers and risks related to outsourcing and offshoring (Kakabadse and Kakabadse, 2002) decision making typologies of call centres outsourcing and offshoring (Lacity and Hirschheim, 1993), issues relating to different outsourcing contracts (Aksin, De Vericourt, and Karaesmen, 2006), and other region-specific issues in call centres (D'Cruz and Noronha, 2007). The managerial and human resource related issues discussed earlier, are also extended in context of outsourced and especially, offshored call centres too. Service quality issues as a result of language and cultural inefficiencies (Lewin and Peeters, 2006), customer resistance to offshoring (Sharma et al. 2009), in addition to the health and well being, and attrition (D'Cruz and Noronha, 2008) seems to be popular so far.

2.3. Anti-narratives of Call Centres

More than few exceptions to above have been reported in literature, questioning the homogeneous narrative of call centres. Firstly, there is a growing literature indicating that after-sales service are emerging to be more than just support functions and could be strategic differentiator, revenue generator and/or an brand fostering functions of organisation (Gaiardelli et al., 2008). Secondly and in specific reference to call centres, call centre services are emerging to be more than just 'necessary evil', and are emerging to be major point of contact for customers and source of revenue for businesses (Evensen et al. 1999).

Until recently, some authors have further challenged the current narratives by exemplifying certain activity types, such as technical support thar require certain level of technical skills to manage transactions (D'Cruz and Noronha, 2007). Similarly, Russell (2004) challenged the homogeneity of call centres by exemplifying evidence of variations in certain industry specific call centres. More specifically, Koskina (2006) and Weinkopf (2006) indicated flexible and autonomous human resource management and operational management strategies in international call centres, respectively.

An array of activities is performed by call centres in various industries, which could be designed using different production models (Batt and Moynihan, 2002). Customer Service tasks can be knowledge intensive and hence, cannot always be deemed as low-skilled sweatshops (Shah and Bandi, 2003). There is also a shift, from scrutinising call centres using the philosophies of Taylor, Braverman and/or Foucault, to evaluating call centres using post-Taylorist philosophies (Piercy and Rich, 2009). However, these accounts are still in premature stages, and the evidence is limited. In addition, there is a growing evidence of firms' strategic view on outsourcing and/offshoring of call centres. For example, there are evidences of strategic considerations towards sourcing models, along with emphasis on relationship management,

partner selection strategy and sourcing decision making, bearing in mind the process specific complexities and managerial challenges associated with call centres (See Jeong et al.'s (2012) review on call centre offshoring research).

Amidst such exceptions is the proliferation of evidence of technological advancements and innovation in call centres. Smith (2009) suggested that majority of call centre literature discusses technological innovations and their impact on improving service processes and leveraging customer satisfaction in sweeping manner. However, until recently, there is an emergence of the literature discussing the technological changes in service provision and management through call centres. Of these, one of the key advancements that is of keen interest to this study is 'Contact Centres'. Therefore, it is imperative that contact centres are introduced before any other technological advancement are discussed in detail[1].

3.　Contact Centres

In contrast to Call Centres, Contact centres are service functions or service organizations, where in service personnel interact with customers via telephony, and other web based technologies including e-mails, chat, fax (and now, social media) to provide information, support products, solicit new business, and myriad of other activities (Holland and Lambert, 2013). In specific reference to service systems,

"A contact center is a coordinated system of people, processes, technologies and strategies that provides access to information, resources, and expertise, through appropriate channels of communication, enabling interactions that create value for the customer and organization" (Cleveland, 2012:16)

As the reviewers of this paper accurately highlighted, the evolution from call centres to contact centres as complex service systems, has been (briefly) highlighted in the literature. However, most of the literature reviewed for the purpose of this research has highlighted the differences between call centre and contact centre at high level. In particular, the discussion is confined to the increase in number of channels through which services are being delivered by contact centre. While some authors have appraised contact centres as successors of call centres (For example see Calvert, 2001), the term 'contact centre' is still used synonymously to 'call centre' (Moberg et al. 2004; Chambel and Alcover, 2011). Even those authors that have highlighted the differences noticeably interchange the terminology in their work (For example, see Larner (2002)), thereby blurring the differences between the two.

Shah et al. (2007) have highlighted some of the key differences between the first generation call centres and, second and third generation contact centres, as illustrated in Figure 1. Whilst their attempt to this differentiation is quite fruitful, even their work has confusing and/or synonymous use of terminology.

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[1] In doing so, the author has not dismissed the technological advancements and innovations that have been discussed under 'call centres'. However, the purpose of the paper is to provide a departure from the term 'call centres' to 'contact centres' for future research.

Image removed for copyright reasons

Fig. 1:   Shift from Call Centres to Contact Centres (Shah et al. 2007)

The above illustration indicates the strategic shift in the role of call centres from being a cost-centric function aiming to turnover high volume of transactions, to a sophisticated customer centric centre, aiming to create and manage personalized relationship with the customers. Beyond the strategic shift, Shah et al. (2006) has also emphasised on heterogeneity and complexity in the transactions, and that unlike call centres, contact centres require skilled staff to manage these transactions.

Whilst Shah and his colleagues have summarised the last 20 years of call centres' journey to contact centres succinctly, they have only discussed these differences at high level with little elaboration and/or exemplification of such service environments or the features of each generation as illustrated above.

Call centres and contact centres both, are technologically driven (Smith, 2009). Technologies such as call routing technologies, Customer Relationship Management (CRM) systems, Knowledge Management systems and Interactive Voice Response (IVR) systems have existed in call centres for quite some time now, and are commonly found in contact centres too. Besides the move from singular channel service provision to multi-channel, the literature on technology and innovation is slowly progressing towards the current innovations in industry, which are still associated to call centre than contact centre. Some of the very recent examples include the adoption and implementation of Customer Relationship Management (CRM) systems in call centres (Abdulateef et al. 2011), use of data analytics and big data in improvement of business processes(Vera-Baquero et al. 2014), and implementation of social media, mobile, analytics and cloud services (SMAC) in call centres (Jayaraman and Mahajan, 2015). The evidence of these developments is sparse, although promising in the literature.

Of particular interest to this research is the consideration of service management implications of contact centres. Unlike call centres' literature, where in service management challenges have been reported in context of scientific management, very little is evidenced about challenges relating to third or even second generation contact centres[2], except, for example, challenges relating to multi-channel service provision (Wilson and Daniel, 2007), and lean driven service management mentioned earlier.   Rather, some authors have replicated the prevalence of issues relating to scientific management in call centres, to contact centres (For example, see Curry and Lyon (2008)). Whilst it is not completely inaccurate to do so, as their findings do

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[2] I do not advocate the use of terms 'second' and 'third' generation contact centres, as the industry refers to second generation contact centre as multi-channel contact centres, and third generation contact centre as omni-channel contact centres.

highlight the commonality between call centre and contact centre, such narratives have only narrowed the scope of further exploration of the latter.

In summary, this research appreciates the work done so far in 1) exploring and exploiting the call centre environments of the last two decades and the issues surrounding the service management of these call centres, and 2) accounting 'contact centres' as successors of call centres to a certain extent, highlighting the growth in number of service provision channels. The purpose of this paper therefore, is to explore contact centres beyond the distinction of service provision through multiple channels, exploring service management challenges associated with contact centres. For the purpose of contextualisation and clarity, I will use the term 'Contact Centre' as opposed to 'Call Centre' here onwards.

4.   Methodological Considerations

Constructionism, in its general form, is about the knowledge and reality that is constructed through the interaction between human beings and their world, and is developed through their practice within a particular social context (Crotty, 1998:42). In particular reference to service, Katzan (2008:12) suggests that "service systems are socially constructed forms of interaction where in entities (person, group, or organisation) exchange beneficial forms of action through the combination of people and technologies that adapt to the changing level of information in the system."

Accordingly, this research was about exploring the construction of this reality or service system, that is, contact centres in this case. Particularly, the purpose was to identify what elements are considered by the practitioners and service providers to construct the service system and the considerations of factors under each of the identified elements of that service system. Further, it was expected that this would lead the researcher to develop the understanding of new implications of service management in accordance with the service design elements.

The findings presented in this paper are a result of preliminary analysis of data collected for ongoing doctoral research between 2014 and 2015 that has resulted in the framework which was used for examination of the service management practice of the organisation. Given the exploratory nature of research, qualitative methods were deemed suitable to address the research questions.

The data was collected in two phases. Phase one consisted of developing the preliminary understanding of key elements of contact centre service design and decision making factors within those key elements. In this phase, data was collected through in-depth conversations with independent contact centre consultants and technology service providers that are not associated to any specific organisation. The rationale for selecting consultants was to ensure that the initial understanding of the contact centres is captured without specific industry and/or organisation's influence.

These findings were extended to phase two, where in the service design elements were further explored and discussed, along with their linkage to the service management challenges. For this purpose, one of the major telecommunications firm in UK, referred to as X for the purpose of this study, was accessed.

The data collection comprised of in-depth conversations with independent consultants from the industry, and service management team of X that are responsible for managing X's service provision through contact centres. In particular, the individuals were selected on the basis of their remit towards the service design elements captured in phase one. In addition, the researcher had opportunities to have informal conversations over e-mail with individuals from X's outsourced contact centres (referred to as Firm Y and Firm Z), who were responsible for managing service on behalf of X[3]. In total, the researcher had 16 in-depth conversations ranging from 45 minutes to 120 minutes (including follow-up conversations), 3 e-mail conversations, and 2 telephonic conversations with the participants during both the phases.

In order to ensure integrity and research ethics, care was taken to assure the protection of both, participants and brand's identity. Prior to access and before having conversations, participant information sheet was provided and consent for recording and note-taking was taken, explaining the rights of participants. Also, wherever deemed necessary by the participants, non-disclosure agreements were signed by the participant to develop trust between the researcher and the participants.

All the conversations, wherever applicable, were recorded and transcribed. Thereafter, data familiarisation was done by constant re-reading of transcripts before analysing the data. The analysis of data entails: (a) in-depth exploration of the key elements of contact centre's service system design, using the narrative of the participants and, (b) obtain holistic understanding of service management of X's contact centre under scrutiny. Rich descriptions of data were created in accordance with these two objectives. Thereafter, these descriptions were further read to tease out specific characteristics of X's service management practice, and to be able to compare and contrast those characteristics with the prevailing narratives that exist in the literature.

5.   Findings and Discussion

As mentioned earlier, the purpose of this research was a) to identify and explore the service design elements of contact centres so that b) service management implications could be explored and discussed in accordance with the service design elements identified.

Several elements were identified that contribute to the thinking of service design and development. For example, Fitzsimmons and Fitzsimmons' (2011) work on service design elements identified 4 structural design considerations namely, delivery system, facility design, location and, capacity planning, and 4 managerial design considerations including Information, Quality, Service Encounter and Managing Capacity and Demand. In addition, Service Blueprinting was identified as key element to encompass detailed consideration of service processes, their complexity, failure points, process fulfilment time, and costs incurred in delivering the service processes. All of these elements were further characterised with additional considerations such as

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[3] Despite having a non-disclosure agreement with the researcher and Telecom X, Firm Y and Z were resistant to have telephonic or face-to-face conversations. Therefore, alternative means of data collection were sought.

strategic positioning of service and information systems consideration to accommodate factors that influence the overall service provision.

Specific to contact centres, Rijo et al. (2012) identified twelve key factors that contribute to the development of information systems design of contact centres namely, flow, channels, technology, service type, integration, geography, dimensioning, ways to obtain the service, user and agent focus, legislation, business domain, and relevant actors. Further, they have characterised these factors into 9 sequential yet iterative steps to design a contact centre. Their objective was dilemmatic throughout the paper. Firstly, they highlighted these factors in light of designing the contact centre information systems (CCIS) design, and then replicated these factors to the design of the contact centre however, referring to contact centre design as CCIS design. This required further examination.

This research has identified 9 key elements of contact centres service design, as illustrated in the figure 2 below. In addition, some key considerations were identified within each element of the service design, through conversations and literature reviewed.

The preliminary findings of this study has revealed interesting insights about the telecommunications market in the UK, and its influence on the strategic decision making of X towards its customer service provision through contact centres.

The telecommunications market in the UK within which Telecom X operates, is highly competitive. Pressures are increasing as existing operators and other service providers seek to strengthen their market position by offering products at competitive prices. Whilst the firms are continually investing in improving their network infrastructure and product innovation to counter the market pressures, the overall profitability in telecommunications business is low compared to other industries, such as finance and airline. Given this, firms such as X are focusing on building their competence by leveraging their service provision.
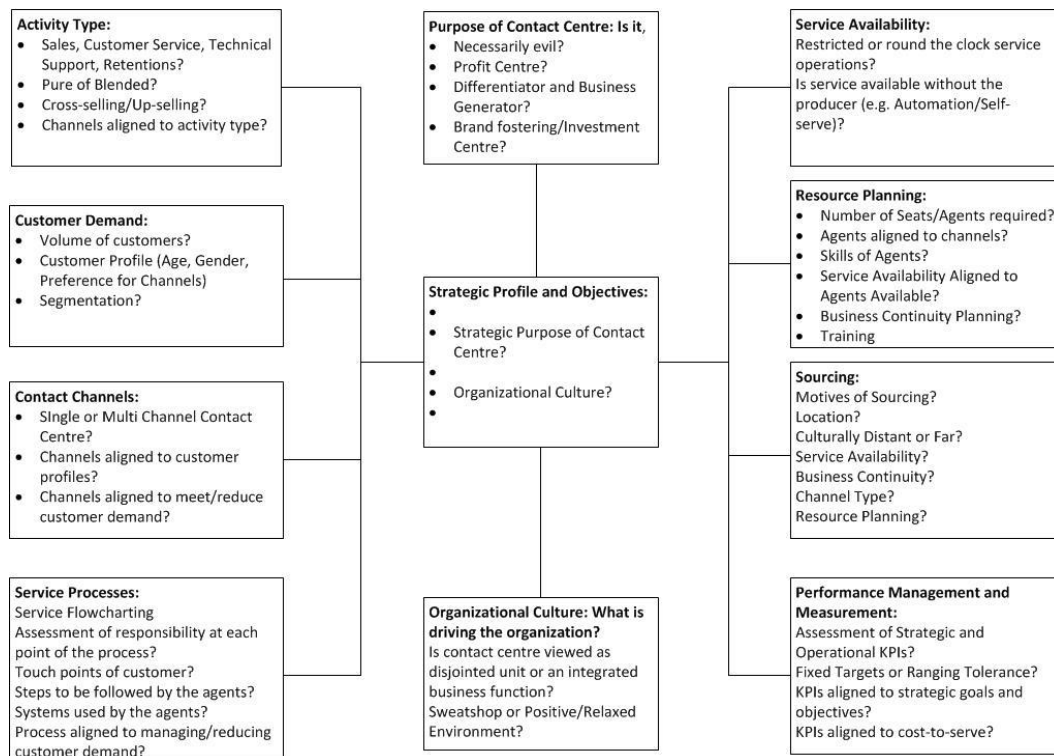
Fig. 2: Key Elements of Service Design and Associated Decision Making Factors (Fitzsimmons and Fitzsimmons, 2011; Rijo et al. 2012; and Author)

As mentioned earlier, call centres were often viewed as cost-overheads or 'necessary evils' of organisation engaged in providing after-sales support of the products, administration, and information based services. Whilst the purpose of contact centres remain the same, a thorough examination of cross-disciplinary literature and conversations have revealed that contact centres are emerging to be integral to competitive advantage (Chew, 2010). X's Contact centres were found to be increasingly involved in providing the above mentioned services as well as being the source of differentiation for organisation. Further, they are slowly emerging to be a source of revenue generation and brand fostering too, where in addition to core activities discussed earlier, cross-sell/up-sell of products are being incorporated. To date, these profiles were only explored in the context of after-sales service broadly, with little reference to contact centres (Gaiardelli et al., 2008).

Also, traditionally, call centres were perceived to be a 'black box' of the organisation where in service improvements were managed in silo, that is, disjointed from the rest of the supply chain of the organisation (Jaaron and Backhouse, 2011). As a result of this, call centres were perceived as after-thought rather than integral component of the service culture. Whilst this was no different for Telecom X, over the years, X's senior management team has adopted organisation-wide service culture approach, as opposed to functional or 'silo' approach, by integrating customer service with areas of the business.

X was faced with number of challenges in transforming the organisation's service strategy and culture. Firstly, like call centres, contact centres were labour intensive in nature, and hence, the overall cost-to-serve is still high in comparison to the profit margin. Secondly, the type of products being used by customers, for example, smartphones and tablets, are significantly, different to the products used by customers 15 years ago. Accordingly, the subscription plans, offered to the customers are

different to, with inclusion of internet package, in addition to traditional voice and text bundles. This has led to increase in the overall complexity of service that demands additional technical skills from service personnel. Thirdly, the customers' expectations from service and demographics are ever evolving, which means that customers are of varied age groups, gender, and culture, and have personalised needs, which are not always suitable to deliver through certain channel provisions. Lastly, the pace of market maturity is too fast to be able to sustain profitability in the business for longer time.

Like Call Centres, X's Contact centres were found to be in a similar tension of managing high cost to serve whilst being able to provide best service to their customers. However, other challenges were also found that were linked to the specific elements of service design, and were found different to call centre challenges discussed to date.

For example, traditionally, the purpose of demand management in call centres was to manage the volume of demand in accordance with the service operation hours, by predicting demand, fulfil that demand, and/or by shifting the demand to other service channels to handle additional demand (Jack et al. 2006). However, in addition to these, the concern of contact centre managers today is to be able to identify the cause of the demand at the first place, analyse and if appropriate, channel the demand strategically to various channels. For example, a lot of transactional stuff like paying the bills, knowing the balance of minutes, text and data, or changing address details can be now done through automated and self-service portals. As a result of this, demand can be managed cost effectively, so that labour intensive channels such as phone, can be used to manage complex transactions. However, the increase in the number of channels has raised several complexities in managing the demand with optimum cost and consistent service quality.

The emergence of contact centres has been found positive for firms such as Telecom X. The literature suggested that service provision through multiple channels has a positive impact on customer satisfaction and strengthening loyalty thereby, leveraging the competitive advantage of the organisation (Dalla Pozza, 2014). It also helps firms such as X, to reduce the cost-to-serve, especially in the case of self-service channels. X's contact centres are currently offering services through phone, e-mail, chat, social media, and through self-service portal over the internet. However, in addition to issues with customer demographics and expectations discussed earlier, it was found that multi-channel service provision could also lead to detrimental effect on the overall service quality, if the channel strategy is not compatible with the complexities imposed by the service processes. Also, certain channels lack autonomy such as Twitter. In addition, if the channels and related service processes are not effectively aligned and managed, the 'silo' effect could lead to fragmented customer journey (Bamforth and Longbottom, 2010).

Service Process Management in contact centres is becoming increasingly complex are steering away from scientific approach of management. It not only comprises scientific blueprinting, flowcharting and documentation of service processes (Rijo et al. 2012). Rather, it entails understanding of the interaction between people (including service personnel and customer), technology, and service processes in order to fulfil the transactions, and their linkages with the objectives of the service, and customer centric goals of the organization. Complexity of products and hence, service delivery are given careful consideration in the design stage of service processes. Processes

are scoped and designed bearing in mind the complexities of products, information systems and channels used to deliver those processes.

X exhibited little evidence of taylorism in management of their service processes. For example, as opposed to 'scripting' and its use in contact centre, X's service personnel use an interactive information system, referred to as *guided help* that *suggests* service personnel which steps *could* be followed to fulfil the transaction. Their philosophy suggests that whilst scientific management enabled predictability of process flows and time taken to fulfil the service process, it's still a challenge for X's service management team to manage the variation that is induced in the service process by both, service personnel and customer. Also, as opposed to cost-reduction approach through intensive standardisation, X's service process management approach was driven by continual service improvements through identification and elimination of failure points in service processes, so as to be able to reduce the overall failure demand and hence, associated cost-to-serve. However, certain level of standardisation which is inevitable in any organisation, for example, the scripting of terms and conditions, reading out regulations to customers, and performance measurement (discussed later).

Given the multi-channel model of contact centres, certain channels, such as self-service has enabled seamless service availability of service for the customer. However, as opposed to Shah et al.'s (2007) view, a contact centre still needs to consider whether the service will be provided for limited number of hours in a day, or it will be a round the clock service operations. This again, depends upon the criticality of the product being offered (e.g. emergency services) and the impact of the failure to provide service on customers' experience of the product. For example, phone channels of X's contact centre are restricted, bearing in mind the lack of customer demand in late evenings. However, self-service channels and automated voice interactive channels are still available, which has not only allowed X to effectively manage their capacity but also offset cost-to-serve to a certain extent.

Like any call centre, Resource planning in X's contact centre was found to be primarily about the number of seats/heads available to serve customers in accordance with the service levels set for the contact centre. Furthermore, *staffing and scheduling* is done to ensure that necessary number of agents is available to manage the customer demand. This entails consideration of the shifts design (e.g. breaks, training, on-call durations), number of agents available in those shifts, holidays and unplanned absences, and recruitment that might need to be done to fulfil the customer demand.

Resource planning further allows the contact centre to align customer demand with the number of hours the contact centre will operate, and sourcing strategy in terms of service availability. It was found that X's contact centres were able to flexibly manage their capacity through heavy reliance on their outsourced partners both, domestic and international. Like any other call centre, X benefited from labour arbitrage, flexibility to manage capacity and demand, and business continuity through their sourcing arrangement. However, over the past few years, they have re-considered their sourcing strategy in accordance with the four key challenges mentioned earlier. In addition, X realised that whilst sourcing was fruitful in managing cost-to-serve, they were increasingly facing service quality issues due to cultural and language inefficiencies of their offshore-outsourced counterparts, inconsistent capacity management of their outsourced counterparts, and other performance related issues. Firms, therefore, are making conscious decisions to source the contact centres on the basis of service

channels, by keeping complex activities in-house or at least on shore, whereas out-sourcing and offshoring channels such as social media, and chat.

A critical element ignored by Rijo et al. (2012) is the performance measurement and management that is crucial to both, call centre and contact centre and hence, links to every element of service design, including strategic profile. However, they do mention benchmarking of contact centres' performance against the industry. X's senior management team suggests that benchmarking of indicators is important in terms of designing the contact centre. However, as one of the participants suggested, *"If you say that I am going to completely benchmark my contact centre in accordance with the industry, then you must be really dumb".* This is in sharp contrast to the existing perception of call centres' performance management.

With the shift in the strategic focus of contact centres, there has also been a shift of focus from certain metrics that distinguishes contact centres from call centres. It was found that X's contact centre performance is measured using 45 different types of metrics, of which four key metrics are directly linked to the strategic objectives of X's contact centres. The first two are effectiveness metrics namely, net promoter score, first contact resolution, as opposed to customer satisfaction and other quantitative targets found in call centres (see Jack et al. 2006). Also, like call centres, efficiency metrics such as average contact time and adherence are still measured highlighting moderate level of Taylorism. However, these are not strict targets or fixed numbers, but guidelines or observed as ranging performance, as opposed to traditional call centres. The contact centres, whether in-house or outsourced and/or offshored follow the same levels of guidelines under each metrics. There are bonuses and rewards for service personnel who are within the ranging performance levels set by the contact centres. In order to incorporate an integrated service culture as mentioned earlier, the performance of the contact centre is also extended to other functions/departments of the organization in the form of performance pay to employees of X.

The role of technology in performance measurement, monitoring management in contact centres was found to be more about improvement of processes as opposed to electronic surveillance and control exertion on service personnel. Contact centre information systems are emerging to be sophisticated in terms of capturing and producing analysis regarding the call data, drivers and resolution. This data/information is used to understand customer contact drivers as mentioned earlier, where the service personnel could have improved the experience of customers, and how the processes could be improved or simplified in order to enhance the customer satisfaction.

6.   Concluding Remarks

From the initial conversations with independent consultants and the practitioners of the industry, factors that are critical to service design of contact centres were revealed. In addition, examination of cross-disciplinary literature and collected data enabled further characterisation of these factors, and to tease out preliminary themes that will be used to scrutinise the data collected, further.

The data collected so far, also suggests that contact centres exhibit complexities in different areas of service design, which is basic abstraction of service (eco) systems.

Accordingly, contact centres could be referred to as critical component of customer service ecosystems of organisations. Further cross examination of data collected with literature review has revealed challenges in following areas of service design, in addition to strategic profiling of contact centres: demand management, channel management, service process management, capacity management, service availability management, sourcing strategy, and performance management, which are further imposing challenges on management of these service ecosystems.

Contact centres are emerging to be exemplars of post-taylorist forms of service systems, where the objectives are beyond the pursuits of productivity and managing volumes, as was the case in call centres. While cost-to-serve is still major concern for both call centres and contact centres, its consideration is not confined to where savings can be achieved and how efficiently contact centres are designed and managed, and services are delivered. Instead, the challenge faced by contact centre managers is how to use contact centres as source of differentiation, revenue generation, or possibly as a fosterer of brand reputation in the market. Accordingly, service management is about optimising costs whilst implement service improvements as corporate strategy as opposed to 'silo' functional strategy.

The role of technology in contact centres is no longer confined to electronic surveillance, and monitoring of activities, but as an enabler of cost optimization through multi-channel service provision, and intensive analyses of data gathered through these channels for continual service improvements. Also, technology is used to improvise service delivery, by empowering both, service personnel and customer to co-create value. However, technology is also perceived as a challenge, in the form of products that are to be supported and the complexity it imposes on service processes. Further, multi-channel service provision could deter service quality if not aligned and managed to the service complexities. Thus, contact centres, unlike call centres, are complex in terms of technology being used. Last but not the least, given the increasing customer expectations, contact centres are challenged by how quicker can they adapt to the changing environment and respond?

The findings of this research are found to be consistent with slowly emerging literature in other strands of service research, such as supply chain management, operations management, generic service industries, and service marketing literature. Some of these findings were also reported in reference to finance, banking and insurance firms. In reporting the findings of this research, the purpose of the author was not to dismiss the developments reported by other authors in the past. In fact, the author has critically appraised their contribution through findings of this study thereby, co-creating value for service scholars. However, one of the key challenges for the author so far has been the lack of specific reference or corroboration of above strands to contact centres. As a matter of fact, the literature itself was found in 'silo' from the mainstream call/contact centres or even service management research, which was difficult to mine for the purpose of this study. As a result, one of the key contributions of this study is to converge the aforementioned strands for a) better understanding of contact centres, b) contextualise the strand of contact centres for future service science researchers and c), to indicate paradigm shifts appropriately.

7.   References

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