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**MEASURING PERCEPTIONS OF FREQUENT USERS TOWARDS SERVICE
QUALITY IN THE FITNESS INDUSTRY:
PUBLIC SPORTS CENTRES IN NORTHERN ENGLAND**

OLGA POLYAKOVA

A thesis submitted to the University of Huddersfield
in partial fulfilment of the requirements for
the degree of Doctor of Philosophy
The University of Huddersfield

April 2018

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Abstract

This thesis explores the perceptions of frequent users towards service quality in public sports centres in Northern England. In light of the increasing competition for members between highly specialised fitness facilities and multipurpose facilities with a broad range of services, the main focus of the thesis is placed on the users of fitness services in the sports centres, i.e. users of fitness suites and fitness classes. In order to address the gap in the previous literature in terms of measuring service quality in these two separate fitness contexts, the adapted model by Ko and Pastore (2005) was applied within the quantitative mono-method research design of this study. To ensure that the instrument is relevant and appropriate for use in the business operating environment, a pilot study and a series of consultation with practitioners took place, as a part of the model's development.

To measure and compare quality perceptions between two groups of frequent users, data was collected via an online survey from a random sample of customers in fourteen public sports centres managed by Kirklees Active Leisure (KAL) Trust, based in the North of England. The purpose of the survey was to capture customers' evaluations of service quality, by inviting them to score the importance and performance of service quality attributes. The survey received a total of 680 responses, out of which 522 respondents self-reported being frequent users of fitness suites, fitness classes, or both. The data was analysed with the Statistical Package for Social Sciences (SPSS); this included importance-performance analysis, quantitative comparison of scores and explanation of satisfaction scores for each of the two groups of users.

The findings of the study revealed the exceptional importance of the physical environment quality for both contexts of fitness suites and fitness classes. The empirical data showed that personal achievement was equally important for the users of both fitness suites and fitness classes and this attribute was, relatively speaking, underperforming in both settings. The greatest differences in quality perceptions between the two groups were found in the areas of sociability and inter-client interaction. Sociability was not seen as a desirable outcome by users of fitness suites, yet this may differ depending on the type of facility and customers' motivations. The study found evidence that individuals who participated frequently in both fitness settings tend to give a higher score on performance of certain service attributes. Finally, the study established that evaluations of perceived service quality by the two user groups contribute to their overall satisfaction differently and, therefore, they need to be considered as users of two distinct fitness settings. Overall, this thesis extends existing research by providing classification of areas related to perceived service quality in the fitness services and utilises an industry-specific model for measuring service quality perceptions of customers in the fitness industry.

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Dedication

I dedicate this thesis to my mother, Tatyana, who has been the source of encouragement and unconditional love throughout my life. My mother's adventurous attitude towards new challenges in learning and personal development has endlessly inspired me in all my endeavours, despite her being far away. Her warmest heart shared joy in my successes and her subtle presence has kept me going through the most challenging times. Above all, she has always believed in me. Thank you, my Mum and my Dearest Friend!

*"Two kinds of gratitude: The sudden kind we feel for what we take;
the larger kind we feel for what we give."*

Edwin Arlington Robinson

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List of abbreviations

afPE	Association for Physical Education
APS/WPS	Average Performance Score/Weighted Performance Score
FIA	Fitness Industry Association
ICS	Institute of Customer Service
IHRSA	International Health, Racquet and Sports club Association
IPA	Importance-Performance Analysis
KAL	Kirklees Active Leisure
KPI	Key Performance Indicator
LMCA	Leisure Management Contractors Association
MSITS	Manual on Statistics of International Trade in Services
NBS	National Benchmarking Service
NPS	Net Promoter Score
PRCA	Penalty-Reward-Contrast Analysis
PSQ	Perceived Service Quality
QUESC	Quality Excellence of Sports Centres
REPS	Register of Exercise Professionals
RKT	Research-Knowledge Transfer
SAFS	Scale of Attributes of Fitness Services
SCC	Sector Skills Council
SIRC	Sport Industry Research Centre
SpoRTA	The Sports and Recreation Trust Association
SQ	Service Quality
SQAS	Service Quality Assessment Scale
SQFS	Scale of Quality in Fitness Centres
SQS-FC	Service Quality Scale for Fitness Centres
SSQRS	Scale of Service Quality in Recreational Sport
UKCSI	UK Customer Satisfaction Index
UKCES	The UK Commission for Employment and Skills

CHAPTER ONE – INTRODUCTION

1.1 Overview

This chapter (p.19-21) includes parts based on previously published conference proceeding: Polyakova, O., Mirza, M. and Jackson, H. (2012). Service quality in fitness centres: literature review and further research. In *Academy of Marketing Conference, Southampton University, Southampton*.

In the past two decades service quality and services management have attracted significant research attention in the recreational sports and health and fitness sectors, however, initially most studies have focused on traditional health care (Arcelay et al., 1999; Ennis and Harrington, 1999; Lagrosen, 2000; Wagar and Rondeau, 1998; Yasin and Alavi, 1999). Before the 2000s the fitness industry had received relatively little research attention (Chelladurai et al., 1987; MacKay and Crompton, 1988; Crompton and MacKay, 1991; Kim and Kim, 1995). Growing research interest in service quality in the fitness industry has emerged over the past decade (Papadimitriou and Karteroliotis, 2000; Chang and Chelladurai, 2003; Alexandris et al., 2004; Afthinos et al., 2005; Ko and Pastore, 2005; Lam et al., 2005; Lagrosen and Lagrosen, 2007; Moxham and Wiseman, 2009; Yildiz, 2011). In the 2000s the interest of academics coincided with the period of increased UK government focus on the health of the British nation (Robinson, 2004) and a period of rapid development of the industry (Tawse and Keogh, 1998; Algar, 2011).

In the beginning of the 2000s a number of acquisitions of UK fitness clubs took place, alongside the launch of new brands. At the same time a series of club chains entered administration, and this assisted consolidation of other major brands (Algar, 2011). The decade of the 2010s started with consequences of the recent recession, which caused a gradual decrease in the overall number of fitness facilities from 2010 to 2012 (The Leisure Database company, 2012). However, market value has increased since the recession's start and the UK fitness industry now continues its growth (The Leisure Database Company, 2012). Alongside these industry trends, more emphasis has been placed on the quality of services in the fitness industry (Lagrosen and Lagrosen, 2007; Moxham and Wiseman, 2009; Yildiz, 2011).

Despite the potential importance of the field, there are indications that service management in the fitness industry, especially the management of customer relations, is deficient (Hurley, 2004). Fitness services require physical interaction between the provider and the customers, and fitness-services operations are complex (Chelladurai et al., 1987) and distinctive (Chang

and Chelladurai, 2003). It is therefore important that fitness-services providers understand what their customers' wants are, what their customers understand by service quality and how service quality influences their satisfaction.

1.2 Rationale for the research

In today's competitive environment achieving and maintaining customer-perceived service quality is regarded as an essential strategy (Macintosh and Doherty, 2007; Cheng, 2010) for the successful provision of overall customer satisfaction and customer retention. In service industries the measurement of perceived service quality has been considered fundamental for the long term survival of service providers (MacStravic, 1997). Previously, research utilised generic tools such as SERVQUAL or SERVPEF (e.g. Brooks et al., 1999; Chaston, 1994; Edvardsson et al., 1997; Lings and Brooks, 1998; Sahney et al., 2004). The use of the generic models forces researchers to alter these items to apply them in a specific context (Babakus and Boller, 1992; Babakus and Mangold, 1992; McAlexander et al., 1994). Buttle (1996) argues that items of SERVQUAL are inadequate to capture the variance within or the context-specific meaning of each dimension. Although Parasuraman et al. (1991) admit that context-specific items can benefit service quality measurement by SERVQUAL, they also note that the new items should be similar in form to the existing SERVQUAL items. Also, Sangeetha and Mahalingam (2011) emphasise that the importance of the service quality dimensions needs to be assessed as it significantly varies depending on a country and on the specific industry under investigation.

Recent academic literature on service quality (Brady and Cronin, 2001; Ko and Pastore, 2004; Lam et al., 2005; Ladhari, 2008; Martinez and Martinez, 2010) emphasised the need to use industry specific tools for measuring service quality. Based on these models, industry-specific attributes would assist researchers in producing service-quality dimensions and scales for measuring perceived service quality in a particular industry. Findings of the literature review by Polyakova *et al.* (2012) highlighted several sectors of service organisations which attracted the most attention from researchers for measuring service quality in: banking (Aldlaigan and Buttle, 2002; Karatepe et al., 2005; Sureshchandar et al., 2002); hospitality (Akbaba, 2006; Getty and Getty, 2003; Wilkins et al., 2007); health care (Shemwell and Yavas, 1999; Tomes and Ng, 1995); IT and technology-based systems (Parasuraman et al., 2005; Wolfinbarger and Gilly, 2003); and travel agency sectors (Lam and Zhang, 1999; Martinez and Martinez, 2007).

With regard to the fitness industry, previous literature encouraged future studies to develop and apply industry specific tools for measuring perceived service quality (Papadimitriou and Karteroliotis, 2000; Westerbeek, 2000; Afthinos et al., 2005). Also, some studies (e.g. Mattila, 1999; Karatepe et al., 2005) made recommendations to focus research on the fitness industry of a particular country as this can provide valuable insight into country specific measures of service quality and subsequently inform quality management strategies in a particular geographical region.

1.3 Problem statement

Addressing the needs of the customers and understanding their perspectives on service quality have become essential for fitness organisations in a competitive environment (Ko and Pastore, 2004; Ko and Pastore, 2005; Lam et al, 2005; Lagrosen and Lagrosen, 2007). In a mature stage of industry development (Ko and Pastore, 2004), fitness clubs seek methods of both retaining existing and attracting new customers. Significant emphasis is placed on service quality and the identification of what customers perceive as quality (Lagrosen and Lagrosen, 2007). Service quality in the sport and fitness industries evolved into a credible research stream from the late 1980s (Chelladurai et al., 1987; MacKay and Crompton, 1988; Crompton and MacKay, 1991; Kim and Kim, 1995; Chelladurai et al., 2003). However, there is still no agreement in the literature about the key dimensions of quality in these industries (Polyakova *et al.*, 2012).

Previous studies developed service quality models specific for the fitness industry (e.g. Kim and Kim, 1995; Chang and Chelladurai, 2003; Lam et al., 2005), while others (Alexandris et al., 2004; Ko and Pastore, 2005) adopted frameworks and dimensions from more generic service quality models such as Brady and Cronin's (2001) model. The literature shows that different options for the number of dimensions were proposed. Thus, Kim and Kim (1995) proposed eleven dimensions, Chang and Chelladurai (2003) – nine dimensions, Alexandris et al. (2004) – three dimensions, Ko and Pastore (2005) – four dimensions, Lam et al. (2005) – six dimensions, Lagrosen and Lagrosen (2007) – three dimensions, Yildiz (2011) – four dimensions. The model by Brady and Cronin (2001), which also included four dimensions, has been utilised in several studies of service quality in fitness activity (e.g. Alexandris et al., 2004; Ko and Pastore, 2005). Despite recommendation for identifying the quality dimensions for a particular industry and using Brady and Cronin's (2001) model (Martinez and Martinez, 2010), to date there has been a shortage in fitness industry-specific models applied to measuring service quality perceptions in the fitness industry.

Research shows that individuals who consume sports service products have patterns of consumer behaviour which are unique to the context of physical activity. The behavioural patterns linked to sports and fitness services were covered in the previous literature; they included: consumers motivations for exercise (McDougall and Levesque, 1994; Rust and Oliver, 1994; Ko and Pastore, 2004; Szabó, 2010); high involvement of consumers in co-producing a sports service (Lovelock, 1996); social nature of the service (Motschieder 2015); ‘excruciating’ participation (habit towards the service) (Schneider and Bowen, 1995); valence, or factors out of control of the service provider (Brady and Cronin, 2001; Alexandris et al., 2004); evaluation of the immediate outcome of service (experience); and after-use benefits (Hu et al., 2009). Due to the unique aspects of the sports services, there are distinct differences between sports organisations and other businesses. Recognising that distinction between various industries has an impact on service quality interpretation and measurement, a number of studies (Brady and Cronin, 2001; Ko and Pastore, 2004; Lam et al., 2005; Ladhari, 2008; Martinez and Martinez, 2010) have emphasised the need for developing industry specific service quality models (Polyakova *et al.*, 2012).

The participatory nature of fitness services, the important role of fitness instructors, and the modes of exercising (i.e. sole workout and in a group-based setting) require more precise ways of measuring users' perceptions about service quality in multipurpose sport facilities. This would allow collection of the data which will have greater relevance to the industry-specific attributes and, hence, will have better usefulness in terms of managerial decision making. Algar (2015a) identified that the competition from fitness facilities which are highly specialised in one type of fitness activity increasingly detracts members from multipurpose facilities with a broad range of services. In light of this fitness industry trend, multipurpose fitness facilities face a challenge in better understanding their customers to ensure higher retention rates. According to a survey by Mintel (2015), exercising in the gym and taking part in fitness classes takes second place (after swimming) amongst the most popular types of activities reported by customers in UK public leisure centres. The growing popularity of these two fitness contexts have been acknowledged by previous studies which measured customers' perceptions of quality in public sports centres and fitness clubs (Ko and Pastore, 2005; Lam et al., 2005; Liu et al., 2009; Yildiz, 2011). Yet, no differentiation was made between users of various fitness activities (e.g. fitness suites and fitness classes), and the service context in a sports facility was considered as one multipurpose fitness offering.

Results of the TRP 10,000™ survey carried out in the UK in 2013 showed that longer-term members were less likely to report gym only and more likely to report group exercise

compared to new members. It has also been noted that "group exercisers are 26% less likely to cancel than gym-only members" (The Retention People, 2013, p.3), which cannot be fully explained by gender, age, membership length, club history or visit frequency. Users who participate frequently in both settings (i.e. fitness suites and fitness classes) are generally more experienced and competent users of a sports facility as they acquire experience of a wider range of service encounters. Therefore, the way they derive their judgements about service quality may differ from those who have only experienced a sole setting. Research evidence shows that customer service evaluations are not static and they do change over time under the influence of a customer's experience (Bolton and Lemon, 1999; Dagger and O'Brien, 2010; Jiang and Rosenbloom, 2005). It was found that customers who had more time to acquire the necessary information and knowledge about a service tend to evaluate the service experience, its benefits and outcomes more holistically than those who had less time with an organisation (Dagger and O'Brien, 2010). Moreover, due to differences in knowledge and experience levels, novice and experienced customers may assign different weights to service attributes (Alba and Hutchinson, 1987) and have perceptions of quality, satisfaction and loyalty from the standpoint of their stage of consumption (Mittal and Katrichis, 2000).

1.4 Research objectives

The overall aim of the research was to explore perceptions of fitness suites and fitness classes amongst frequent users in the context of public sports centres in Northern England. The following research objectives were set for the study:

1. to measure frequent customers' perceptions of service quality by using the customer satisfaction survey tool in public sports centres;
2. to compare quality perceptions between two groups of frequent users - users of the fitness suites and users of fitness classes;
3. to identify if frequent use of one area (i.e. fitness suites or fitness classes) contributes to the improvement in the customers' perception scores in another;
4. to explore the relationship between areas of perceived service quality and overall customer satisfaction.

1.5 Structure of the thesis

The thesis starts by providing a background and a rationale for the research, the area of service quality. The aim and objectives of the study are set out in the introduction. This is

followed by a critical analysis of the literature on service marketing, service quality and models of perceived service quality in the fitness industry, which informs the research strategy of the study. The overview of the fitness sector in England is presented in the chapter dedicated to the industry review, which places the study within the fitness industry. Then, the methodology describes the research approach and the methods adopted by the study, followed by the research findings and discussion of the results within the context of the literature. Finally, alongside acknowledging its limitations, the thesis provides conclusions and recommendations for academics and management of public sports centres.

Chapter 1 outlines the context of the research, describes its rationale and sets out the aims and objectives for the study, in relation to the research problem posed. **Chapters 2-5** are dedicated to the critical analysis of the literature on services marketing, service quality, customer satisfaction and models of perceived service quality. The main purpose of those chapters is to establish a solid theoretical foundation for the current study. Thus, **Chapter 2** covers evolution of service and service marketing concepts, differences between services and goods as well as service marketing mix. **Chapter 3** explores the concept of perceived service quality and discusses it in relation to customer satisfaction. **Chapter 4** critically reviews the main generic service quality models and outlines the main considerations for application of the models. **Chapter 5** analyses service quality models specific for the physical fitness industry, reviews quality dimensions within those models and presents evidence from previous literature on how frequency of participation in physical activity can affect customer quality perceptions. **Chapter 6** presents an overview of the fitness industry in the UK and England; relevant legislation and regulations; current fitness market segmentation; and sector profiles of the market. In Chapter 6, the context of fitness suites and fitness classes was identified as a primary research focus for this study. **Chapter 7** describes research methodology, which was informed by the process suggested by Saunders, Lewis and Thornhill (2012) ('Research Onion'). It includes the research philosophy, the research approach, the research strategy, methods of data collection and outlines the analysis adopted by this study. **Chapter 8** presents an analysis of the research findings and provides a discussion of the results within the context of the existing literature. **Chapter 9** covers the conclusions and implications of the research. The study is concluded with objectives, discussion on the theoretical and practical contributions, proposed recommendations and consideration for the limitations of the research.

CHAPTER TWO – SERVICES MARKETING

2.1 Introduction

This chapter (p.24, 27-30) includes parts based on previously published journal article: Polyakova, O. and Mirza, M. (2015). Perceived service quality models: are they still relevant? *The Marketing Review*, 15(1), 59-82.

The aim of this chapter is to present a background of the service concept (Sections 2.2–2.3) and to follow development of service quality thought (Sections 2.4–2.6). Evolution of overall market relationships has triggered the emergence of services marketing into a significant area (Section 2.3). A transition from previously dominant production to service economies took some time and in that period academics attempted to explain differences between goods and services (Section 2.4) in the new market, which generated the need for development of new frameworks, such as the Services Mix (Section 2.6). For the new service companies, previously existing quality control principles based on product-manufacturing processes started to become inadequate for quality management and the search for new principles of quality began.

2.2 Service concept

While scholars have defined the service concept in different ways, most often activities, deeds, processes and interactions are used when defining the concept of service (Solomon et al., 1985; Lovelock, 1991; Zeithaml and Bitner, 2003; Vargo and Lusch, 2004a). Lovelock (1991) defined services as “a process or performance rather than a thing” (p.13). This view is also supported by Grönroos (2001) who argued that service is “a process that leads to an outcome during partly simultaneous production and consumption processes” (p.150). Gummesson (2007) agrees that services are dynamic activities and processes, whereas goods are static things (Polyakova and Mirza, 2015).

The second perspective (service as a solution to customers’ problems) is presented by Grönroos (2001) whose view of services focuses on the customers, where services are provided as solutions to customer problems. From this perspective, service is conceptualised as an activity of an intangible nature that usually takes place during the interaction between the customer and service employees to provide solutions to customer problems (Grönroos, 2001). The final perspective (service as a beneficial outcome) is discussed by Vargo and Lusch (2004a, 2004b), who suggest that service is the main function of business enterprises; it

is an application of specialised competences - knowledge and skills - through deeds, processes, and actions for the benefit of another entity or the entity itself (Polyakova and Mirza, 2015). Thus, the definitions above suggest that generic concept of service is linked to processes, interactions and solutions to customer problems.

Although there were attempts to define service in different ways, there is no single generally accepted and complete definition of service. Thus, the approach of listing services used in official statistics reflects the reality of the service concept state. A statistical paper produced by six organisations (United Nations, European Commission, International Monetary Fund, Organisation for Economic Co-operation and Development, United Nations Conference on Trade and Development and World Trade Organisation) in 2010 stated that the term 'services' covers a heterogeneous range of intangible products and activities that are difficult to encapsulate within a simple definition (Department of Economic and Social Affairs, United Nations, 2010). As a result, statistical systems and classifications related to international trade in services were developed. According to the statistical paper, the main groups of services: manufacturing services on physical inputs owned by others; maintenance and repair services not included elsewhere; transport; travel; construction; insurance and pension services; financial services; charges for the use of intellectual property not included elsewhere; telecommunications, computer and information services; other business services; personal, cultural and recreational services; government goods and services not included elsewhere. Each of the groups is explained and detailed commentary provided in MSITS (2010).

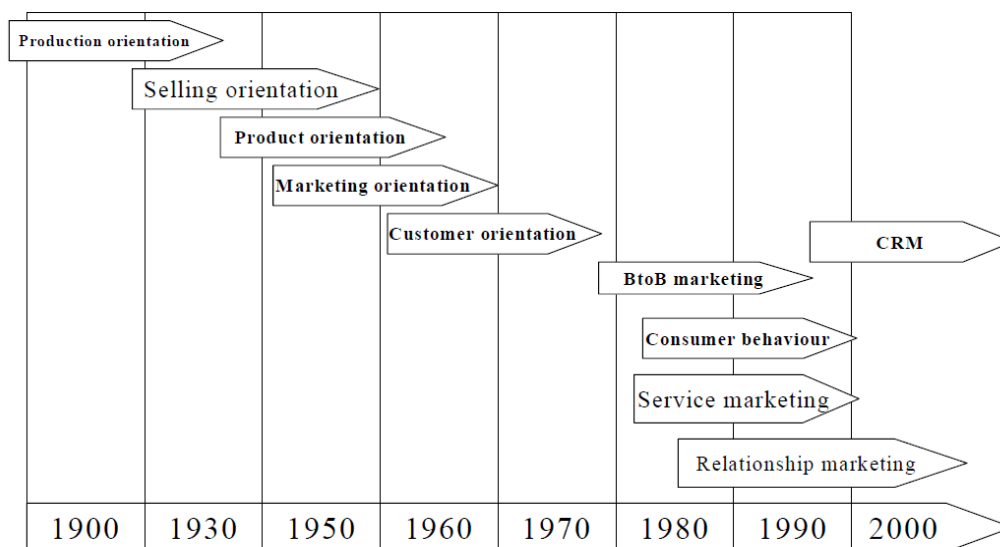
2.3 Evolution of services marketing

The evolution of services marketing became an integral part of the evolution of the/a broader marketing field (Figure 2.1). The first stage towards the emergence of services marketing was production orientation, when in the beginning of the twentieth century, production efficiency and cost-cutting were central for companies. Since the 1930s, when industrialised countries were hit by recession and people had less money to buy products, oversupply of goods led companies to concentrate on selling techniques to overcome buying inertia and convince customers to buy products. The next stage, product orientation, was based on the belief that customers favour quality and performance in products; and companies need to design high quality products and regularly improve them to make a sale. A combination of the previous stages resulted in a marketing orientation which puts customer needs in first place. It switched companies' orientation from finding the right customer for the product to producing the right product to match the needs of customers. The marketing orientation was replaced by a more

precise focus on customers and placing more emphasis on consumer research. This stage, called customer orientation, started the era of competing for the customers on the basis of knowledge of customer needs and creating prerequisites for repetitive buying behaviour.

The evolution of services marketing went through three main stages: crawling out; scurrying about; and walking erect stages (Brown et al, 1994). According to Yong and Wilkinson (2002) until the early 1980s the manufacturing sector was a centre in the quality debate. However, the first ‘crawling out’ or pre-1980s stage, identified by Brown et al (1994), is characterised by the emergence of a new concept of services and defining features of services.

Figure 2.1: Evolution of marketing and service marketing

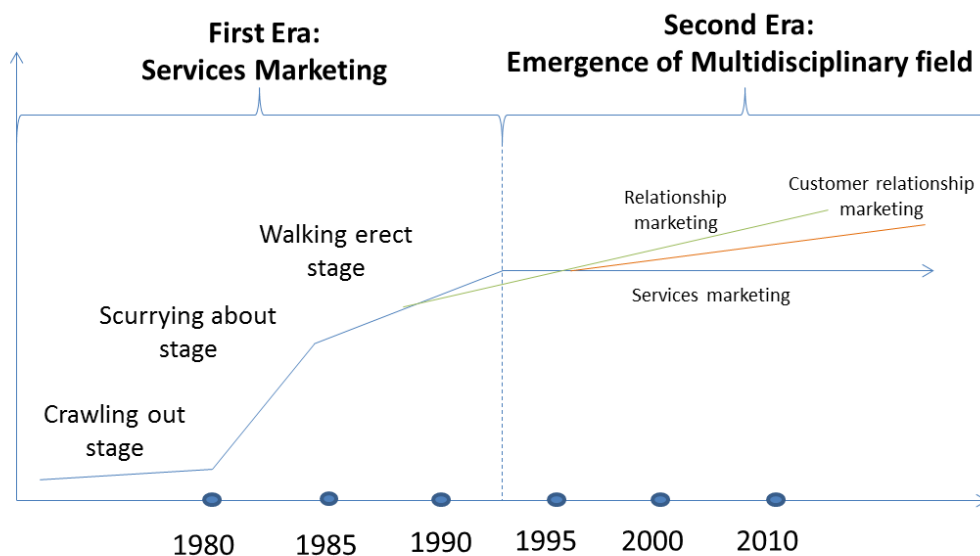


Source: Mahlamäki and Nikko, 2006, p. 75

The crawling out stage was also the time when the debate about goods marketing versus services marketing took place; this debate fundamentally challenged the right of the services marketing area to exist (Mahlamäki and Nikko, 2006). The second stage of ‘scurrying about’ is claimed to be between 1980 and 1985. Brown et al (1994) suggested that during that time there was high interest in service marketing; the services versus goods debate slowed down and a foundation for the next stage was established. From 1986 the ‘walking erect’ stage started and since then literature has focused on service satisfaction, service design and relationship marketing. Yong and Wilkinson (2002) suggested that at the time the nature of service organisations raised methodological and conceptual issues in relation to the transfer of quality management practices developed in manufacturing. This, in turn, initiated development of a range of various service quality models and frameworks.

The three stages - ‘crawling out’, ‘scurrying about’ and ‘walking erect’ - belong to the first era of services marketing (Figure 2.2). The second era embraced rapid development of other marketing areas which resulted in the emergence of a multidisciplinary field – services marketing; relationship marketing; and customer relationship marketing, in particular. Currently, these areas develop in parallel and contribute to each other’s field. They reflect the growing integration and complexity of the contemporary services marketing field.

Figure 2.2: Eras of marketing



2.4 Services characteristics and associated critique

There are significant differences between services and manufactured goods (Ghobadian, Speller and Jones, 1994; Fitzgerald, Johnston, Brignall and Voss, 1993), which are captured and explained in the marketing literature through the service characteristics of inseparability; heterogeneity; intangibility; and perishability. These differences subsequently have a direct impact on the approach and substance of quality management and will be discussed in turn (Polyakova and Mirza, 2015).

The inseparability of production and consumption in service industries refers to the notion that (usually) the marketer creates or performs the service while the full or partial consumption of the service takes place. This simultaneous production and consumption results in a highly visible activity that makes it very easy to identify errors or quality issues. Also, intimate involvement of the consumer in the delivery of the service introduces an additional process factor over which the management may have little or no direct control. As

well as this process factor of consumer involvement, consumers also interact with each other, and the behaviour of one group of customers may influence other customers' perceptions of service quality (Ghobadian et al., 1994). The fact whether an inseparability characteristic is applicable to all services has been questioned by Gummesson (2007). The characteristic of inseparability appears to be limited to a sub-group of services as some are performed without the customers' presence (e.g. dry-cleaning, car repair, the legal courts, road maintenance). Edvardsson, Gustafsson and Roos (2005) argue that the essence of inseparability stems from the earlier product and production-oriented view where there is a one-way direction of service delivery, i.e. the provider renders a service and the customer simultaneously consumes it. This argument justifies why Edvardsson et al. (2005) consider this perspective of inseparability to be outdated. Instead, they propose a shift of focus from the provider-customer interaction to co-production and co-creation; and emphasise the fact that it is the dynamic nature of services (activities, deeds, performances and experiences) that requires simultaneous production and consumption (Polyakova and Mirza, 2015).

In the context of service provision, heterogeneity complicates the provider's task to reproduce the same service consistently on each occasion. The extent of the heterogeneity of service provisions can be affected by a number of factors, including the service provider's behaviour; their awareness of customers' needs; as well as the consumer's priorities and expectations. The variability of a service from one period to another and from consumer to consumer makes quality consistency difficult to control. Service providers must rely heavily on the competence and ability of their staff to understand the requirements of the consumer and react in a timely and appropriate manner (Ghobadian et al., 1994). To clarify the causes of heterogeneity, Edvardsson et al. (2005) suggests looking at the concept of heterogeneity from two perspectives. The first perspective explains heterogeneity from the point of the ever-changing nature of the service providers and service processes, while the second perspective emphasises heterogeneity of the production within a given company due to variation among customers' needs and expectations. Similarly, in consideration of the characteristic of intangibility (in the search of reaching consistency), it is difficult to produce the standardisation of processes and outputs which subsequently results in heterogeneity (Polyakova and Mirza, 2015).

Intangibility of service refers to a lack of physical attributes and implies the existence of a set of difficulties. On one hand, it is complicated for the producer to determine the service; and, on the other hand, it is difficult for the consumer to assess its potential advantages. This encourages the consumer to look for information through word of mouth, reputation,

accessibility, communication, physical attributes and quality assessment. In services, the influence of word of mouth and reputation on purchasing decisions is much greater than the influence of tangible product specifications, which, according to Ghobadian et al. (1994), places greater responsibility on service organisations to deliver what they promise and to market the service adequately. Edvardson et al. (2005) note that it is difficult to develop output measures for services and to display or communicate them as the customer does not own anything tangible after the service is produced and consumed. The author argues that, paradoxically, in some cases customers perceive intangibility of services as a tangible impact. For example, the effect of a professional advice service may continue to bring financial or other benefits in the future, which creates the value of an intangible service over a long period of time and by this token becomes more tangible (Edvardson et al., 2005, p.117). The uniqueness of intangibility characteristics for services was questioned by Gummesson (2007). The brand and its symbolic value, the associations and unique mental experiences involved in the use of the product serve as examples of intangibility in tangible product situations. Therefore, Gummesson (2007) argues that there is no empirical evidence that the intangibility aspect has an impact on marketing strategy or market behaviour that separates goods from a service (Polyakova and Mirza, 2015).

Perishability of services implies that a service cannot be stored for later use, resold, or returned. This places extra responsibility on the service provider to get the service right first time, and every time (Ghobadian et al., 1994). Unlike in the manufacturing of goods, a final quality check of a service is almost impossible to implement (Lewis, 2003). Edvardson et al. (2005) view perishability as a characteristic created solely by the producer's activity, not that of the customer and claim it is based on the former definition of services in relation to physical products. Instead, they suggest the use of 'tangibilisers', i.e. a focus on ways of managing the evidence of service and creating favourable customer experiences (Polyakova and Mirza, 2015).

2.5 'Goods-dominant' and 'service-dominant' logic

The four service characteristics have a long academic history and have been substantially integrated into the marketing field in explaining key differences between goods and services. However, some question the validity and relevance of these characteristics (Edvardsson et al., 2005; Gummesson, 2007). Edvardsson et al. (2005) conclude that the service characteristics have most often been discussed from the viewpoint of the service provider, as opposed to the customer. According to Gummesson (2007), the service characteristics proved to be invalid

for defining goods and services as overriding economic categories. Developing the debate on distinguishing services from goods and understanding the nature of services, Vargo and Lusch (2008) suggested two perspectives for consideration – ‘goods-dominant’ and ‘service-dominant’ logic. Table 2.1 below draws upon the transitional move from a product focus to a service focus (Polyakova and Mirza, 2015).

Table 2.1: Goods-dominant vs. service-dominant logic

Goods logic	Service logic
Making something (goods or services)	Assisting customers in their own value-creation processes
Value as produced	Value as co-created
Customers as isolated entities	Customers in context of their own networks
Firm resources primarily as operand	Firm recourses primarily as operant
Customers as targets	Customers as resources
Primacy of efficiency	Efficiency through effectiveness

Source: Vargo and Lusch (2008), p. 258.

‘Goods-dominant’ logic views services as an intangible type of good and implies that goods production and distribution practices should be modified to deal with the differences between tangible goods and services. ‘Service-dominant logic’ considers service as process of using one’s resources for the benefit of and in conjunction with another party. Vargo and Lusch (2008) note that this logic calls for a revised, and service-driven framework in marketing. According to Gummesson (2007), the service-dominant logic has more relevance and proposes service as the core concept replacing both goods and services. In this situation, a supplier can only offer a value proposition, but it is the usage and consumption process which make value actualisation happen. Gummesson (2007) stated that together value proposition and value actualisation are the outcome of co-creation between suppliers and customers (Polyakova and Mirza, 2015).

2.6 Services marketing mix

While traditional marketing models offer a product as a starting point for decisions about marketing planning (communication, pricing etc), a service marketing model replaces a product with a service concept aiming to answer the question of “how the quality-generating resources should function and what result they should achieve for the customer” (Grönroos, 2001, p. 150). The concept of a service marketing mix explains a process of the quality

generation and explains the controlled elements that can be utilised by the firm to achieve customer's satisfaction.

2.6.1 Traditional marketing mix

The term 'marketing mix' was used for the first time by Borden (1964) in his speech at the American Marketing Association in 1953 (Dominici, 2009). The original marketing mix by Borden (1965) included 12 elements: product planning; pricing; branding; channels of distribution; personal selling; advertising; promotions; packaging; display; servicing; physical handling; and fact finding and analysis. Later, Lazer and Kelly (1962) and Lazer, Culley and Staudt (1973) proposed three elements of marketing mix: the goods and services mix; the distribution mix; and the communication mix. Yet, the most influential idea came from McCarthy (1964) who proposed four elements (or 4Ps) - product, price, promotion and place – and defined the marketing mix as a combination of all the factors available for the marketing manager to satisfy the target market. Each of these categories consists of a mix of elements i.e. product mix, price mix, promotion mix and place mix (Rafiq and Ahmed, 1995). Four primary elements of marketing mix (4 P's) can be described as follows (Cengiz and Yayla, 2007):

- 1) Product: the item or service being marketed, through its features, quality, benefits and quantities;
- 2) Price: the price of the item and product assortments and lines, price changes and payment methods;
- 3) Place: the location where the product or service is available to the customer, including distribution channels;
- 4) Promotion: personal selling, advertising, direct marketing, public relations (PR), sales promotion and sponsorship.

McCarthy's marketing mix has been an influential and widely adopted framework due to its simplicity to understand for both academics and practitioners (Möller, 2006; Dominici, 2009). The main contribution of the marketing mix tool is that clarifies the job of marketing manager, firstly, "a matter of trading off the benefits of one's competitive strengths in the marketing mix against the benefits of others" (Goi, 2009, p. 2) and, secondly, is the allocation of "available resources among the various competitive devices of the marketing mix" (Goi, 2009, p. 2).

After the proposal of the 4P's marketing mix by Borden (1964), the discussion around the relative importance of each mix element was initiated. Despite initially declaring equality of all marketing mix elements, Kellerman et al (1995) notes that business executives do not perceive the 4Ps as being equally important and consider the price and product components to be the most important. The 4P's have also been criticised for failing to account for customers' perspective, which makes it a production-oriented tool for marketing management (Popovic, 2006). As a result of that critique, an alternative to the 4P's model, 4C's (i.e. the concept mix, costs mix, channels mix and communications mix) were first proposed by Brunner (1989). Around the same time, Lauterborn (1990) replaced each 'P' in the traditional mix by a new corresponding 'C': product was replaced by customer solution, price by cost to the customer, place by convenience and promotion by communication.

On the other hand, Moller (2006) argues that criticism of the 4P's internal orientation is superficial and it grows from a misconception of the relation between marketing mix and the marketing concept. In defence of the 4P's adequacy, Moller (2006) states that the essence of the marketing concept lies in marketing activities based on identification of customer needs and wants, which should be preceded by segmentation, product differentiation and positioning in order to gather full information from the customers and fulfil their needs. Still, there is recognition that 4P's marketing mix considers customers as passive, i.e. it does not allow interaction and cannot capture relationships (Moller, 2006). Indeed, the 4Ps do not include theoretical content and present a simplistic tool for focusing the attention of management.

2.6.2 Expanded marketing mix for services

Further criticism of the traditional 4P's marketing mix was built around the fact that the social and economic environment has changed since the industrial era and there is a need for a new adequate framework. The traditional marketing mix was derived from research on manufacturing companies and now faces limitations in current diversified markets of business activities. Growing literature on services marketing revealed the weakness of a/the goods marketing approach which does not take into account unique services characteristics – IHIP (Rafiq and Ahmed, 1995). This showed that services required a different type of marketing and, therefore, a different marketing mix framework (Booms and Bitner, 1981).

An expanded marketing mix for services was proposed by Booms and Bitner (1981). It included four traditional elements - product, price, place, promotion - and three additional elements, namely physical evidence, participants, and process. Yelkur (2000) suggests that

these three additional elements distinguish ‘customer service’ for service firms from that of manufacturing firms.

Physical Evidence is related to intangible characteristic of services and it can be described as “tangibilising the intangibles” (Reddy et al, 1993). Generally, physical evidence comprises of the environment in which the service is delivered and tangible goods that facilitate the performance and communication of the service (Rafiq and Ahmed, 1995). In particular, environmental design; decor; noise level; odours; temperature; colours; textures; and comfort of furnishings influence consumers’ feelings and help them to form the perception of service, i.e. tangible clues help customers to assess the quality of service provided. Rafiq and Ahmed (1995) suggest that the physical environment presents a part of the product itself.

Participants include personnel, the customers who buy the service and other customers in the service environment. It means that marketing managers should consider managing the service provider-customer interface as well as the actions of other customers and their interactions (Rafiq and Ahmed, 1995). Appearance and commitment of personnel become important factors in forming customers’ perceptions of service following on from personnel training. Berry et al. (1988) noted that in order to provide customer service in the service industry it is not enough to recognise customers’ needs and set appropriate standards, it is also essential to ensure that personnel are willing and able to perform according to these standards.

Process element reflects how the service is delivered and includes the procedures, mechanisms and flow of activities as well as the behaviours of personnel (Boom and Bittner, 1981; Yelcur, 2000).

In Table 2.2 Rafiq and Ahmed (1995) summarised the reasons for the differences in usage of 4P’s and 7P’s mixes. It should be noted that the results were derived through content analysis of respondents’ answers and therefore they represent perceived strengths and differences between the two marketing mixes.

Table 2.2 - Perceived strengths and weakness of the 4Ps and 7Ps mixes

	7Ps	4Ps
Strengths	More comprehensive More refined Broader perspective Includes participants/people and process It is a model	Simplicity and ease of understanding Easy to memorise Good pedagogic tool, especially for introductory marketing Parsimony

	Standardisation Signals marketing theory	Useful conceptual framework Ability to adapt to various problems
Weaknesses	More complicated Extra elements can be incorporated in 4Ps Controllability of three new elements	Too simple, not broad enough Lacking people, participants and processes Physical evidence Relationship marketing, service Lack of connection/integration between variables Static nature of 4Ps

Source: Rafiq and Ahmed (1995)

The main argument for using the 4P's mix is its simplicity in application, whereas the 7P's mix is more comprehensive and it has the potential to cover more diverse areas of marketing (services, relationship marketing). Furthermore, results by Rafiq and Ahmed (1995) showed that despite general support for the 7P's mix, there is no evidence of unified support for the three new elements of 7P's.

For example, the physical evidence element has not been well conceptualised; it is also rarely discussed outside the services marketing area which may explain the lack of established and diverse support. Participants/people and process elements appear to have received the most support from academics and relationship marketing literature (Gronroos, 1994).

2.6.3 Further developments

Long-standing dispute about the relevance of the marketing mix framework resulted in variations of the opinions in the area of research into marketing mix frameworks, such as: calls for generic marketing mix to be applied to both goods and services (Rafiq and Ahmed, 1995); suggestions to adapt existing mixes to particular service contexts (Dominici, 2009; Dhiman and Sharma, 2009); proposals to add other elements and/or to change the elements of the mix (Ivy, 2008).

There were several attempts to produce marketing mixes for particular contexts in the service industry. Renaghan (1981) proposed a new three-element marketing mix for the hospitality industry which includes the product service mix, the presentation mix and the communications mix. The product-service mix in Renaghan's model was supposed to capture the fact that hospitality firms offer a blend of products and services, and it refers to the combination of products and services. The presentation mix refers to all elements used by the firm to increase the tangibility of the product-service mix in the perception of the target

market, at the right place and time (the physical plant, location, atmospherics, price and employees). The last element, communication mix, is very similar to the promotion component of the traditional marketing mix, and it refers to all communications between the firm and the target market that increase the tangibility of the product-service mix.

More recently, work in the area of higher education marketing by Ivy (2008) argued that none of the traditional mixes can be adequately applied to the marketing of MBA programmes in South Africa. Ivy (2008) proposed four new distinctive elements along with three elements from the traditional marketing mix, namely premiums, programme, prominence, prospectus (as novice elements) and price, promotion, people (adapted from the traditional marketing mix). Dhiman and Sharma (2009) discuss the 7P's services marketing mix concept and its application to library and information centres. The authors do not draw any clear conclusions, however they do not challenge 7P's applicability in the given context.

Dominici's (2009) work reviews the development of marketing mix theory for the digital context. He suggests that two different positions can be taken by researchers regarding change to the traditional marketing mix: 'conservatives' and 'revisionists'. The conservatives' approach implies that traditional 4P's may continue to be the dominant paradigm in digital contexts; only sub-mixes within each P can be changed by adding and/or deleting relevant factors in order to adapt to the new scenario. The revisionists approach claims that the 4P's framework is archaic and elements of the mix should be updated (i.e. by adding or deleting other elements). Dominici (2009) draws the conclusion that the basic construction of 4P's is still valid and is still the core of operative decisions. However, this conclusion is based purely on the basis of his literature review.

The reasoning behind ideas about the generic marketing mix ("a marketing mix which cuts across the boundaries of goods, services and industrial marketing" – Rafiq and Ahmed, 1995, p.18) goes back to definition of product as a bundle of benefits, with tangible and intangible elements (Enis and Roering, 1981). Although the processes of marketing mix implementation may vary between goods and services, Rafiq and Ahmed (1995) argue that in cases where service delivery is highly standardised (delivery process, quality control), service marketing is very similar to goods marketing.

2.7 Summary

This chapter introduced key aspects of services and services marketing. Different approaches to defining the concept of service were discussed and historical origins of services marketing

were outlined. Since relationship marketing and customer relationship marketing branched out from services marketing, the field embraced an interdisciplinary nature and an increased level of complexity. Distinct differences between tangible products and 'ephemeral' services through the main services characteristics in the mid-90s and then the debate on the nature of services was continued by Vargo and Lusch (2008), who uncovered two perspectives on services - 'goods-dominant' and 'service-dominant' logic. This debate suggested that the development of the contemporary services marketing field conceived another characteristic of services which is co-creation with customers. Although shared responsibility for the ultimate value of a service can lie with both provider and consumer, organisations have always relied on frameworks that would allow them to stay in control of service elements and overall value proposition. One of these frameworks - Services Mix - became most prominent in explaining a value generation and it was applied in various services contexts.

CHAPTER THREE – SERVICE QUALITY AND CUSTOMER SATISFACTION

3.1 Introduction

This Chapter (p.38-39) includes parts based on previously published journal article: Polyakova, O. and Mirza, M. (2015). Perceived service quality models: are they still relevant? *The Marketing Review*, 15(1), 59-82.

For service companies, the absence of an actual product that could be described in purely material terms introduced more difficulties into managing the final service outcome that customers ultimately receive and judge. Previously, existing quality control principles based on product-manufacturing processes became outdated for quality management in service companies. This was the time when the concept of perceived service quality was introduced in early 1980s (Section 3.2). Since then, there has been an on-going debate into the service management literature about concepts of perceived service quality and customer satisfaction (Crompton and MacKay, 1989; Oliver, 1993; Buttle 1996; De Ruyter et al., 1997; Liljander and Strandvik, 1997). Some authors questioned if these two constructs (i.e. PSQ and satisfaction) were valid at all (e.g. Swan, 1983), whereas some claimed that they represented the same thing (Nguyen, 1991). To date, it still remains unclear whether satisfaction and perceived service quality are different constructs, and if they are distinct constructs, how they are related. Thus, Sections 3.3-3.5 focus on conceptualisations, definitions and aspects of customer satisfaction. Section 3.6 provides a brief overview of three theories explaining customer satisfaction from different perspectives. Section 3.7 critically discusses differences and similarities between satisfaction and perceived service quality. Section 3.8 establishes the link between customer satisfaction and service co-creation from the perspective of 'service-dominant' logic explained in detail in the previous chapter, chapter two of the thesis.

3.2 Service quality and perceived service quality

The term 'quality' has been used to describe a wide variety of phenomena (Harvey and Green, 1993; Reeves and Bednar, 1994; Seawright and Young, 1996; Yong and Wilkinson, 2002; Harvey, 2007). Quality has been defined as avoidance of loss (Taguchi, 1970 - in Ross, 1989); fitness for use or purpose (Juran, 1974); conformance to requirements (Crosby, 1979); continuous improvement (Deming, 1986); total composite product and service characteristics for meeting the expectations of customers (Feigenbaum, 1983); meeting and/or exceeding

customers' expectations (Gronroos, 1983; Parasuraman et al., 1985); meeting the customers' requirements (Oakland, 2000). Quality can be perceived subjectively and conditionally by different individuals as well as groups of people (such as producers and consumers); also, it can represent either an internal or external concept to the firm (Seawright and Young, 1996).

The first attempts to conceptualise service quality were in the 1980s and were based on suggested services characteristics and research in the field of cognitive psychology (Churchill and Surprenant, 1982; Hoffman, 1986; Mandler, 1975; Oliver, 1980; Russell and Pratt 1980; Russell, Ward and Pratt, 1981). Initially, the comparison of actual service performance to set standards became a basis for conceptualisations of service quality (Grönroos, 1984; Parasuraman et al., 1988). According to Grönroos (1984), the perceived service quality is “the outcome of an evaluation process where the customers compare their expectations with service they have received” (Grönroos, 1984, p.37). Parasuraman et al. (1988) supported the same view, defining the concept of service quality as “a form of attitude related but not equivalent to satisfaction that results from a comparison of expectations with perceptions and performance” (Parasuraman et al., 1988, p.15) (see Polyakova and Mirza, 2015).

After the genesis of the service quality concept, the new challenge was to transcend understanding of quality rooted in the physical goods environment. Applicability of the quality concept to intangible services was impeded by “missing product” in services (Grönroos, 1998). Intangibility and heterogeneity of services introduced further complexity into defining service quality in terms of process, outcome or solution for customers' problems. In order to improve the understanding of service situations, the approach originated by the Nordic school (Grönroos, 1984) proposed looking at service quality from the customer's perspective (i.e. researching service quality as perceived by the users). Grönroos (1998) suggests that a customer-oriented construct of perceived service quality has been developed to overcome the problem of a “missing product” in service organisations (Polyakova and Mirza, 2015).

Identifying the customer-oriented approach in the perceived service quality was a big step forward, with it evolving into a long-established concept within service quality research. Nevertheless, an all-embracing definition and objective measurement of service quality remains a challenge. This view of service quality as an elusive and abstract construct stimulated the emergence of different schools of thought on perceived service quality (Akbaba, 2006; Zeithaml, Parasuraman and Berry, 1990) (see Polyakova and Mirza, 2015).

The most general definitions of service quality are formulated as a consumer's judgment about an entity's overall excellence or superiority (Zeithaml, 1987). Service quality has also been described as a form of attitude, related but not equivalent to satisfaction, which results from the comparison of expectations with actual performance (Bolton and Drew, 1991a; Parasuraman et al., 1988). More recently, as the result of a critique of the expectations-performance comparison, Cronin and Taylor (1992) suggested that service quality is an attitude, based only on evaluating service performance. Two latter definitions of perceived service quality – the expectation-performance comparison and performance-only evaluation – laid the foundation for the two conceptually different streams in the development of service quality models (Polyakova and Mirza, 2015). With regard to customer's evaluation of service, Berry and Parasuraman (1991) proposed that distinction in desired level of service and an adequate level of service can be explained by the zone of tolerance, i.e. a range of service performance that a customer considers satisfactory. The zone of tolerance theory suggests that the impact on a customer will depend on whether performance of service is above or below this zone. Therefore, performance below the tolerance zone will cause customer frustration and decrease customer loyalty, whereas performance level above the tolerance zone will pleasantly surprise customers and strengthen their loyalty (Johnston, 1995).

With the growing integration and complexity of the contemporary services marketing field and development of relationship marketing (as described in Chapter Two, Section 2.3), relationship aspects of quality started increasingly attract attention from researchers and practitioners. According to Grönroos (1990, 1994), relationship marketing aims to establish, maintain, and enhance relationships with customers and other partners profitably, achieving their objectives through a mutual exchange and fulfilment of promises. In the context of the relationship lens, the concept of service quality was suggested to be considered a necessary, yet not sufficient, condition for relationship quality (Crosby et al., 1990). Relationship quality was defined by Grönroos (2000) as the dynamics of long-term quality formation in ongoing customer relationships and continuously developing customers' perceptions of quality over time. Some authors argued that relationship quality significantly differs from service quality and can better predict behavioural intentions (Roberts et al., 2003; Rosen and Suprenant, 1998). However, it cannot be assumed that all customers have propensity to relationships with the service provider and, therefore, those customers who are inclined to develop a relationship need to be identified first (Athanasopoulou and Mylonakis, 2009).

Most established service quality models (e.g. Parasuraman et al., 1985; Brady and Cronin 2001; Dabholkar et al., 1996) have embraced interactional nature of services and the included

dimensions related to the interactions with staff involved in service delivery as well as interactions with other customers (e.g. Chang and Chelladurai, 2003; Ko and Pastore 2005). Such dimensions in SERVQUAL model were critiqued for being rather functional aspects of the service encounter (Price, Arnould, and Tierney, 1995), i.e. mainly reflecting the efficiency with which employees deliver the service and not considering the customers' emotional benefits, associated with the social interaction between employees and customers (Peiró, et al. 2005). In contrast, other models (e.g. Brady and Cronin 2001; Ko and Pastore, 2005) integrated elements related to personnel and social interaction on a level beyond core performance, namely friendliness of staff, opportunities to make friends, other customers' positive impact on service perception, and sense of family. To some extent, this integration accounted for the relationship aspect; however, service quality models can only be operationalised under the assumption that customers rationally process the information and treat interactional aspects as functional part of service (Babin, Darden and Griffin, 1994).

3.3 Conceptualisations of customer satisfaction

As customers bring to the firms the greatest part of businesses' revenue (Tam, 2004), consumer satisfaction has attracted much attention in the literature. Customer satisfaction has been identified as an antecedent of loyalty and long-term relationships with customers. It can influence consumer behavioural intentions and customer retention (Cronin et al., 2000). This brings opportunities for profit growth to firms (Reichheld 1993; Heskett et al. 1997). Indeed, there is evidence that customer satisfaction is linked to increased profits (Heskett and Schlesinger, 1994; 1997) and plays an important role in corporate strategy (Homburg et al., 2005). Some studies have suggested that customer satisfaction is a mediator between service quality, loyalty and word-of-mouth (Seiders et al., 2005), whereas other argued that customer experience quality could be a better predictor loyalty and word-of-mouth (Maklan and Klaus, 2011).

Two perspectives to viewing customer satisfaction have been developed over the past two decades: transaction-specific and cumulative (overall) satisfaction. Transaction-specific conceptualisation of satisfaction was dominant until the late 1990s and focused on a particular product or service transaction, or service encounter (Anderson, 1994). Oliver (1980) defined this type of satisfaction as post-choice evaluative judgments about specific purchase decisions. Second, cumulative perspective on customer satisfaction has developed more recently; it reflects customers views about past, current and future organisational performance. In this instance, customer satisfaction is, as an overall evaluation, based on the

total purchase and consumption experience with a product or service (Anderson, 1994). In other words, cumulative satisfaction should be viewed as a theoretical variable similar to attitude and measured as a weighted-average or index of satisfaction indicator (Johnson et al., 2002). Cumulative satisfaction could explain more about organisational performance and assist in meeting strategic organisational goals for benchmarking and setting standards (Johnson et al., 2002). It is useful to consider both transaction-specific and cumulative satisfaction in complimentary way as they lead to different managerial objective-based behaviours (Bodet, 2008).

Transaction-specific satisfaction is largely formed by externalities that influence consumer motives and behaviour. These externalities may include budget constraints, interactions or waiting time (Bahia et al., 2000). Some authors have suggested considering a factor of 'valence' as a determinant of customers' perceptions of received services (Brady and Cronin, 2001; Alexandris et al., 2004; Martinez and Martinez, 2010): "... Valence captures attributes that control whether customers believe the service outcome is good or bad, regardless of their evaluation of any other aspect of the experience" (Martinez and Martinez, 2010, p. 99). Yet, the concept of valence is still relatively new for the service literature; moreover, it is situated in inter-field area of psychology and business studies. Therefore, Martinez and Martinez (2010) suggest further research into this concept in order to identify factors describing valence in particular service contexts.

3.4 Definitions of customer satisfaction

Definitions of customer satisfaction have varied throughout the evolutionary development of the concept. The evolution of customer satisfaction has led to two main approaches – cognitive and affective (Tam, 2004). Cognitive-oriented definitions emphasise that satisfaction is determined by a cognitive process of comparing what customers receive (rewards) against what they sacrifice to acquire the service (costs). Churchill and Surprenant (1982) defined customer satisfaction as an outcome of purchase and use resulting from the buyers' comparison of the rewards and costs of the purchase in relation to the anticipated consequences. Engel and Blackwell (1982) viewed satisfaction as an evaluation of the chosen alternative for consistency with prior beliefs with respect to that alternative.

On the other hand, definitions based on affective aspect describe satisfaction as an emotional feeling resulting from an evaluative process. Thus, satisfaction is viewed as an emotional state that occurs in response to the evaluation of a service (Westbrook, 1981). Hunt (1977)

suggested that consumer satisfaction with a product is the favourableness of the individual's subjective evaluation of the various outcomes and experiences associated with buying it or using it. Oliver (1981) emphasised a surprise nature of satisfaction, defining it as “an evaluation of the surprise inherent in a product acquisition and/or consumption experience” (p. 27). Westbrook (1987) proposed separating satisfaction and knowledge in order to consider two stages in formation of satisfaction:

“In the first stage, post-usage beliefs about product attributes or outcomes actually realized are compared with pre-purchase expectations, yielding a new belief about the extent of expectancy disconfirmation. Expectancy disconfirmation can range from positive ... to neutral ... to negative... In the second stage, expectancy disconfirmation beliefs and initial expectation beliefs, as recalled from memory, are combined additively to produce the satisfaction evaluation” (p.260).

Other authors (Woodruff et al., 1991; Rust and Oliver, 1994) supported the viewpoint derived from the affective aspect. However, they clarified that satisfaction is an emotional response resulting from a cognitive process of evaluating the service received against the costs of obtaining the service.

Although definitions of customer satisfaction have different basis (i.e. cognitive vs. affective), there seems to be agreement about similar components in definitions:

- 1) Customer satisfaction is a consumer response, either emotional or cognitive;
- 2) The response occurs at a particular time, during the consumption process or after consumption, based on accumulated experience as an outcome;
- 3) The response pertains to a specific consumption experience that includes expectation, importance, and performance (Giese and Cote, 2002; Chang and Polonsky, 2012).

Still, research on customer satisfaction has still not acquired an all-embracing definition in the area. The lack of consensus on definitions of consumer satisfaction leads to three main inconsistencies in the research area. These inconsistencies take place during three stages: selecting an appropriate definition for a given study; operationalising the definition; and interpreting and comparing empirical results (Giese and Cote, 2002).

In view of the competing definitions of customer satisfaction, Giese and Cote (2002) argued that each study should develop its own “conceptually consistent, clearly delineated, context-specific definition of satisfaction” (p.17) as opposed to trying to find and adapt some kind of universal definition. Therefore, the authors proposed a framework for developing a customer

satisfaction definition which includes: a) summary affective response which varies in intensity; b) satisfaction focus around product choice, purchase and consumption; and c) time of determination which varies by situation, but is generally limited in duration. All these three aspects should be defined; relevant patterns selected and focuses identified by the researcher depending on the context of the interest and research questions. Arguably, following this framework will lead to the development of “conceptually richer and empirically more useful than previous (ones)” (Giese and Cote, 2002, p. 15) definitions.

3.5 Aspects of satisfaction

Hunt (1977) suggested that satisfaction represents evaluation of emotion (better/worse depending on expectations) rather than an emotion (good/bad). The cognitive aspect of satisfaction is that it is a consequence of experience and it is formed by evaluation of this experience. In other words, it is a judgement about how well the final service outcome meets initial expectations.

Expectations may cause differences in satisfaction towards the same service, i.e. the higher the expectations are, the lower the satisfaction is. This link between expectations and satisfaction is explained by the disconfirmation paradigm (Oliver 1977; 1980) which implies that comparison between perceived outcome and some prior standard drives customers' satisfaction (Bigné and Andreu, 2002). Thus, the judgement resulting from the comparison could be negative disconfirmation (if the performance is lower than expected), positive disconfirmation (if the results are better than expected) or simple confirmation (if the performance equals the expectations). A customer will be dissatisfied in the case of negative disconfirmation and satisfied in the case of simple or positive disconfirmation (Bahia et al., 2000).

Oliver (1981) argued that satisfaction includes a cognitive dimension, but it is also generated by the surprise element encountered in the service experience. Earlier studies (Woodruff et al. 1991; Rust and Oliver 1994) supported the role of emotions in formation of satisfaction and argued that an emotional feeling results from an evaluative process (i.e. disconfirmation). Different researchers (Matilla and Wirtz, 2000; Jayanti, 1996; Mano and Oliver, 1993; Wirtz and Bateson, 1999) investigated the importance of emotional reactions in determination of satisfaction. The study by Bigné and Andreu (2002) discovered that satisfaction increases as a function of the level of pleasure and arousal. In line with this, Martinez and Martinez (2007)

suggested that improving the consumer's affective state would lead to a higher level of satisfaction.

The affective aspect of satisfaction is affiliated to attribution theory (Weiner, 1986). This theory suggests that customers try to find reasons for perceived service success/failure and make judgments about cause and effect relationships that influence their attitudes and behaviours on the basis of certain dimensions of causal attributions. These dimensions include locus of causality (internal vs. external source of the cause of that result), stability (variability) of the cause and controllable aspect of the cause (Oliver and Desarbo, 1988). A study by Yuan et al. (2010) presents some evidence of links between satisfaction and attribution: it has found that if the perceived service failure happened due to the seller's actions (external locus), which could have been avoided (controllable) and can happen again (stable), then customers are more likely to complain.

Both cognitive and affective aspects of satisfaction are complementary as they explain the same phenomenon (Bahia et al., 2000). According to Martinez and Martinez (2007) the main difference in cognitive and affective perspectives lies in the way they conceptualise the relationships between disconfirmation and emotions. Cognitive theory of emotions (Bagozzi et al., 1999) states that emotions act as a mediator between cognitive evaluations (disconfirmation) and satisfaction. Bigné and Andreu (2002) suggest that emotions have a direct relationship with disconfirmation. Another view is that emotions act as independent factors between cognitive evaluations (disconfirmation) and satisfaction (Westbrook, 1987; Koelemeijer et al., 1995; Martinez and Martinez, 2007), i.e. emotions and the cognitive construct are independent variables and they represent different sources of satisfaction. Martinez and Martinez (2007) found that influence of an emotional component on satisfaction is stronger than the influence of cognitive evaluation (disconfirmation), however their study did not consider the role of perceived quality.

3.6 Related theories

The theory of equity in exchange developed from sociology and organisational behaviour, but it also applies to individual consumers in marketing situations (Oliver and Desarbo, 1988). Earlier studies (Huppertz et al., 1978; Huppertz et al., 1979; Fisk and Coney, 1982; Mowen and Grove, 1983; Oliver and Desarbo, 1988) suggested that consumers can retrospectively realise inputs and outcomes for themselves and the seller, assess fairness of input/outcome distribution, and then express their satisfaction/dissatisfaction if situations are

inequitable. On the other hand, when the outcome-to-input ratio is perceived as fair and equitable, the consumer will be satisfied. Harris (1983) emphasised that it is difficult to express dependency of satisfaction from an input/output ratio in mathematical terms. Yet, Oliver and Desarbo (1988) argued that satisfaction takes place when the consumer perceives his/her input/outcome ratio as proportionate to the one of the seller, and this ratio can be expressed through the following dependency:

“...when inputs are disproportionately higher for the focal person, satisfaction should increase as that person's outcomes increase relative to those of the other, and decrease as outcomes decrease relative to those of the other” (Oliver and Desarbo, 1988, p. 496).

Due to the fact that evaluation process is a cognitive brain function, Bahia et al., (2000) argued that equity theory is linked to Howard and Sheth's (1969) definition of satisfaction, i.e. client satisfaction is a cognitive state to be fairly rewarded for the 'sacrifice' committed in the purchase process.

Originated from the work by Weiner et al. (1971; Weiner 1986), **attribution theory** suggests that consumers' satisfaction/dissatisfaction depends on whether they perceive product/service performance as successes or failures. The causality has the three following dimensions: locus of causality; stability; and controllability.

Locus of causality can be external (when the service provider gets the credit or blame) or internal (when the consumer is responsible for the product/service performance). Weiner et al. (1978) suggested that satisfaction describes internal locus attributions more frequently; external attribution responses tend to include appreciation and gratification. Folkes (1984) argued that the locus of causality is the dominant attribution dimension for satisfaction and that satisfaction should be more evident for internal attributions rather than for external ones in the domain of outcome successes. Another dimension of stability (vs variability) is linked to the cause of the outcome. Stable causes tend to have more impact on satisfaction because consumers tend to be more forgiving of product/service failures that appear to be rare events (Hom, 2000). The third dimension is controllability (vs uncontrollability), which causes customer dissatisfaction with the provider if the customer believes the provider had the control to perform in a better way and deliver a better outcome.

Kano et al. (1984) proposed the **Three-Factor Theory of Customer Satisfaction** which suggests that depending on how customers perceive performance, perceived importance and influence of a product/service attribute on overall customer satisfaction will vary. This has been referred to as asymmetric relationships between product/ service attributes and overall

customer satisfaction. In the context of this theory, product/service attributes can be divided into three categories of factors: basic, performance and excitement factors. Basic factors (or Must-be Requirements, Hygiene Factors) present the minimum requirements that companies must offer their customers. Basic factors are more likely to cause customer dissatisfaction if they are not provided, but do not create high customer satisfaction if they are in place (Matzler et al., 2004). The influence of basic factors on customer satisfaction increases when their performance is low. Unlike basic factors, performance factors (or One-quality Elements, Linear Factors) may equally cause high customer satisfaction by their presence or dissatisfaction in their absence; therefore, influence of performance factors on overall customer satisfaction is symmetric and linear. Excitement factors (or Attractive Quality Elements, Value-enhancing Factors) may create high customer satisfaction by their presence, yet they do not cause dissatisfaction if they are not in place. When performances are high, the importance of the excitement factors increases; yet they become unimportant when their performances are low (Deng et al., 2008; Matzler et al., 2004). Vavra (1997) developed Kano et al.'s (1984) concept further by proposing to identify which of three categories factors belong to by combining explicit attribute importance (i.e., customers' self-stated importance) and implicit attribute importance (i.e., based on an attribute's correlation or regression with overall customer satisfaction) in a two-dimensional importance grid.

A study by Albayrak and Caber (2014) applied the three-factor theory to the context of fitness clubs as well as Penalty-reward-contrast analysis technique (PRCA), alongside IPA. PRCA was applied under assumption that service-quality attributes have an asymmetric influence on customer satisfaction, i.e. negative performance of an attribute might have a greater impact on overall satisfaction than positive performance of the same attribute, or its positive performance might have a greater effect on customer satisfaction than its negative performance. Albayrak and Caber (2014) identified attributes of Workout facility and Programmes as basic factors, Locker Room as a performance factor and Staff as an excitement factor. The attribute of Physical Facility has not been classified by Albayrak and Caber (2014) within the framework of three-factor theory as its influence on overall customer satisfaction was found to be insignificant at high and low performance levels.

3.7 Distinction between customer satisfaction and perceived service quality

There has been an on-going debate in the service management literature about concepts of customer satisfaction and perceived service quality (Crompton and MacKay, 1989; Oliver, 1993; Buttle 1996; De Ruyter et al., 1997; Liljander and Strandvik, 1997). It ranges from

questioning the discriminant validity of these two constructs (Swan, 1983) to identifying them as representing the same thing (Nguyen, 1991). To date, it remains unclear whether satisfaction and perceived service quality are different constructs, and if they are distinct constructs, how they are related.

The first significant contribution to this debate was made by Parasuraman et al. (1988) who argued that perceived service quality is a global judgement similar to attitude, and it is relevant to the superiority of the service, while satisfaction is related to an evaluation of a specific transaction. Following this proposal, the authors concluded that transactional satisfaction over time results in perceptions of service quality. This view was supported by other researchers (Bitner, 1990; Bolton and Drew, 1991b), who also proposed that satisfaction leads to perceived service quality.

Hurley and Estelami (1998) defended the perspective that service quality and satisfaction are distinct constructs with a causal relationship between them. They argued that perceived service quality is an antecedent of satisfaction. In another study, Natalisa and Subroto (1998) reached the same conclusion by examining the effects of perceived service quality on the level of customer satisfaction in the airlines industry, using the SERVQUAL instrument. Lee et al. (2000) showed that perceived service quality leads to satisfaction and the results were consistent with the findings of Cronin and Taylor (1992), Oliver (1993), Spreng and MacKoy (1996), and Woodside et al. (1989). Hu et al.'s (2009) study confirms that high service quality leads to superior perceived value, customer satisfaction and favourable perceptions of corporate image. Kou and Wub's (2009) findings also showed that service quality positively influenced perceived value and customer satisfaction.

The confusion over the relationship between satisfaction and perceived service quality can be explained by the lack of agreement among researchers on the definition of the two concepts as well as their operationalisation (Teas, 1993). The work by Parasuraman et al. (1988) led to perceived service quality being viewed as a global judgement in most service quality research, and customer satisfaction research has had mostly the transaction-specific focus (see 4.2.3). However, it has been suggested that perceived service quality can be viewed at the transactional level as well as the global one (Oliver 1993; Parasuraman et al. 1994). Tam (2004) argues that the roots of the debate are in the different perspectives (overall judgement versus transactional) adapted by the researchers. Indeed, at the level of a particular transaction, perceived service quality will influence customer satisfaction, whilst at the global level cumulative transaction-specific satisfaction will determine overall perception of service

quality (Tam, 2004). In practical terms it means that at the transaction-specific level, customer satisfaction is an evaluation based on the recent purchase experiences (Boulding et al., 1993). In its turn, the cumulative perspective indicates that evaluations of customer satisfaction should be based on all the purchase experiences of the customer, disregarding any specific purchase experience (Johnson and Fornell, 1991). However, this brings into question how objective the customers are about their overall satisfaction, and where the guarantee is that their experience of a particular situation would not contribute to a subjective overall judgement. The latter would mean that customer satisfaction should be discussed from a quasi-cumulative perspective. In case of services, it becomes even harder to justify objectivity of customers' judgements due to the intangible nature of services.

Bahia et al. (2000) proposed four dimensions to distinguish satisfaction from perceived quality: (1) cognitive vs. affective nature; (2) respective determinants; (3) operationalisation of expectation and; (4) time dimension. This proposition is summarised in Table 3.1.

Table 3.1: Differences between satisfaction and perceived service quality

Dimensions	Perceived quality	Satisfaction
Cognitive/affective nature	Cognitive	Quasi-cognitive Affective
Determinants	Disconfirmation or Performance Intrinsic attributes to the service/company	Disconfirmation, attribution and situational factors Attributes related to the service/company and other extrinsic attributes
Expectations	What the company must offer What the client should expect	Performance prediction at the time of the transaction What the client would expect
Time	Global attitude, stable in time	Punctual, related to a precise transaction

Source: adapted from Bahia et al., (2000)

The first dimension suggests that perceived quality is purely cognitive in nature (Oliver, 1994), whereas satisfaction is claimed to be a quasi-cognitive phenomenon, where emotions play a significant role (Hunt, 1977). Although the disconfirmation model has a substantial influence on identifying determinants of both satisfaction and perceived service quality

(Oliver and Desarbo, 1988), analysis of literature suggests that factors from other theories - attribution, equity (Oliver and Desarbo, 1988) and the situational factors – can play a significant role in defining satisfaction in a distinct manner from perceived service quality:

“.. the reason that explains why the service is not as good as usual (attribution), the quality/price ratio (equity) as well as the availability of the service or the client moods (situational factors) could modify the client’s satisfaction towards a service without necessarily changing its perceived quality” (Bahia et al., 2000, p. 35).

Also, Bahia et al., (2000) notes that factors of attribution and situation are external to the service/company and cannot contribute to the service quality evaluation which should be based on intrinsic attributes of the service (Ngobo, 1997).

The second dimension is operationalisation of expectations. Referring to Parasuraman, Zeithaml and Berry (1988), Bahia et al. (2000) state that perceived quality expectations must be based on what the company should offer, while satisfaction expectations act as predictors of the performance at the exact moment of a specific transaction.

The third point of difference is the time dimension. As a global attitude (i.e. overall evaluation), perceived service quality is stable over time (Parasuraman et al., 1988), whereas satisfaction is a ‘punctual phenomenon’ (Bahia et al., 2000, p.35) linked to a specific transaction (Oliver, 1981; Parasuraman, Zeithaml and Berry, 1988; Zeithaml, 1988; Bitner, 1990; Cronin and Taylor, 1992; Liljander and Strandvik, 1993). Yet, over time the affective or emotional nature of satisfaction diminishes and it transforms into the perceived quality – a global attitude (Bahia et al., 2000).

The work by Bahia et al. (2000) considerably clarifies processes of defining and operationalising concepts of satisfaction and perceived service quality. However, the question whether customer satisfaction can be cumulative and objective at the same time (Johnson and Fornell, 1991) stays unresolved. Still, there is an outstanding issue with operationalisation of perceived service quality that was raised by Grönroos (1998):

“... the perceived service quality model was never intended to be an operational model of service quality. It was developed and introduced as a theoretical construct to help academics and practitioners understand the nature of the missing product of service firms, i.e. to understand the service process itself as the solution to customer problems.... How good the quality of the service was perceived to be by customers was expected to be measured using customer satisfaction approaches” (Grönroos, 1998, p. 329).

The above debate presents two competing views on the relationship between satisfaction and perceived service quality: in one instance, perceived service quality is the antecedent of

satisfaction, in another – the other way around. Bahia et al. (2000) argues that these two views do not exclude each other and each of them can be used under various conditions. To define possible conditions Bahia et al. (2000) propose four factors, namely: 1) client’s propensity to be relational vs. transactional); 2) nature of services; 3) strength of corporate image; and 4) stage in the client/company relation (Table 3.2).

Table 3.2: Relationship between satisfaction and perceived service quality

Factors	Satisfaction → Perceived quality	Perceived quality → Satisfaction
Client’s personality	Transactional Reasoning one transaction at a time	Relational Reasoning with regard to the whole relation
Nature of service	Commodity services	Important, complex services, services with higher degree of involvement, services offered on continuous basis
Corporate image	Corporate image/identity not strong enough	Strong corporate image/identity
Stage in the client/company relation	At the beginning of the relation, reference to expectations and/or satisfaction to evaluate perceived quality	N/A (the more relationship advance, the more satisfaction and perceived quality converge)

Source: Bahia et al. (2000), p.38

If a client tends to think of one transaction at a time, satisfaction will determine his/her perceptions of quality. To those clients with a propensity for relationships, the opposite model should be applied, i.e. perceived service quality leads to satisfaction. In terms of their nature, services can be divided into commodity services and regular services. Therefore, the continuous nature of service delivery builds the perception of service importance and can require high levels of involvement; then the perceived quality of the service generates client satisfaction. Contrary to regular/continuous services, commodity services have little differentiation advantage on the market; therefore, the perception of service quality will be formed, depending on how satisfied the customer is.

The strength of corporate image influences the attitudinal element of clients’ perceptions (i.e. the stronger an image, the stronger the attitudinal element). In case of strong company identity perceived service quality will be an antecedent of satisfaction. When a corporate image is weak, clients will first refer to satisfaction to build their perceptions of quality.

The stage of relationship between the client and the company also plays a significant role. Thus, at the beginning of a relationship expectations and satisfaction tend to be employed to evaluate perceived service quality. When clients become more advanced in their relationship with the company, consideration of the direction of the Satisfaction-Perceived service quality relationship becomes irrelevant as over the time satisfaction and perceived service quality converge.

3.8 Satisfaction and service co-creation

As described in the previous section, the nature and length of service provision plays a role in the formation of satisfaction and perceived service quality. Also, where the purchase process is generally longer, the psychological commitment of the consumer is greater (Liechty and Churchill, 1979). Strombeck and Wakefield (2008) suggest that because of different motives and different circumstances different consumers may form different perceptions of the same consumption experience, even if they approach the same service at the same time and in the same place. Moreover, it has been suggested that people purchase products and services as a means to fulfil their deeper emotional, sensory and hedonic aspirations (Maklan and Klaus, 2011), which will vary as well from individual to individual. In this instance, the sense of satisfaction would be derived from how well these aspirations were fulfilled.

If there is a certain purpose that each customer aims to achieve by consuming the service, their satisfaction depends on achieving this purpose, i.e. higher-order objective or value-in-use. Value-in-use has been defined as “a customer’s functional outcome, purpose or objective that is directly served through the product/service consumption” (Macdonald et al., 2009, p.3). Maklan and Klaus (2011) suggested using overall cognitive and emotional assessment of value from the customer’s point of view rather than evaluating it against benchmarks or expectations. This replicates structure of customer satisfaction that includes cognitive and affective aspects. Also, Maklan and Klaus’s study (2011) advocated measuring customer experience quality as a step forward from measuring service quality. In this instance, customer experience quality can be seen as a bridging concept between transactional and cumulative satisfaction, as “customers take a longitudinal perspective when assessing their experiences” (Maklan and Klaus, 2011, p. 777).

Other recent studies on ‘service-dominant’ logic and service co-creation (e.g. Vargo and Lusch, 2004; Grisseemann and Stokburger-Sauer, 2012) emphasised the role of involvement of customers in the service creation process for generating their satisfaction. Service-dominant

logic suggests that value is created in the interaction process between the company and the customer rather than exclusively in the provision of service (Gronroos, 1997; Etgar, 2008). Service-dominant logic has been developed further by Vargo and Lusch (2004) and Lusch et al. (2008) who placed a focus on the dialog between the company and the customer to jointly create a service. Yi and Gong (2013) explained customer value co-creation behaviour as a concept consisting of two factors: participation behaviour (necessary for value co-creation) and citizenship behaviour (voluntary, extra-role). A study by Grisseemann and Stokburger-Sauer (2012) on travel agency services showed evidence that the degree of co-creation affects customer satisfaction with the service company, customer loyalty and service expenditures. The results of the study revealed that customers might want to co-create only to a certain extent and might become dissatisfied with the service company if their degree of co-creation is higher than the customer expects. However, this might be different in the context of different industries. The impact of co-creation on satisfaction with the service company as well as impact of satisfaction with own co-creation performance have been suggested as an area for further investigation.

The concept of customer's satisfaction with own co-creation performance is closely linked to the theories of equity and attribution. Theory of attribution can describe that customers make their casual explanations of success or failure and attribute them to themselves or external factors. Theory of equity could be useful for explaining how customers assess their own input and input of the company in the service co-creation. Desirable levels of customer self-efficacy and perceived fairness of resource distribution are important points for industries to consider with regard to the high-involvement nature of customer participation, in particular in such industries as sport and fitness.

3.9 Summary

The evolution of the perceived service quality concept encompasses a pathway from its emergence to the research models development. The concept of customer satisfaction is closely related to perceived service quality. The field of psychology has offered two aspects for consideration in understanding the phenomenon - cognitive and affective satisfaction. The debate on what comes first in formation of satisfaction – rational judgements or emotions – found common ground in the presence of emotions in both arguments. There is evidence that the influence of an emotional component on satisfaction is stronger than the influence of cognitive evaluation (disconfirmation) (Martinez and Martinez, 2007). However, in order to

explore prerequisites of satisfaction in the service context, the role of expectations and perceived quality should be considered further.

Along with intrinsic cognitive and affective aspects, situational factors (e.g. budget constraints, interactions, waiting time, moods, and valence) can contribute to the formation of consumer motives, behaviour and satisfaction. Depending on the context (e.g. length of time) in which satisfaction is formed, two generic perspectives can be utilised: transaction-specific and cumulative satisfaction. Transaction-specific satisfaction emerges from a particular purchase/experience of a product or service encounter. On the other hand, cumulative satisfaction is relevant when it represents overall evaluation based on the total purchase and consumption experience over time. As customer satisfaction is a multi-faceted concept, it has been suggested that each study should develop its own context-specific definition of satisfaction (Giese and Cote, 2002) reflecting on the following criteria: a) summary affective response which varies in intensity; b) satisfaction focus around product choice, purchase and consumption; and c) time of determination which varies by situation, but is generally limited in duration.

Due to the complexity of customer satisfaction phenomenon the body of literature has not been explicit about the cause-and-effect relationship between satisfaction and perceived quality. As a result, two competing views currently exist: first, when perceived quality is seen as the antecedent of satisfaction and, the second, when satisfaction is seen as an antecedent of perceived quality. Yet, it was suggested that these two views do not exclude each other and each of them can be adapted depending on the client's propensity to be relational or transactional; the nature of services; the strength of corporate image; and the stage in the client/company relationship (Bahia et al., 2000).

Two theories – theory of equity and theory of attribution – present an explanatory tool for understanding the process of formation of customer satisfaction in the industries where customers are highly involved in the co-creation of service. There is some evidence that customers' satisfaction with own performance can influence their overall satisfaction with the service company (Grissmann and Stokburger-Sauer, 2012). It remains unclear to what extent co-creation is beneficial for generating customer satisfaction across service industries.

CHAPTER FOUR – SERVICE QUALITY MODELS

4.1 Introduction

This chapter (p.54-59, 63-74) is substantially based on previously published journal article: Polyakova, O. and Mirza, M. (2015). Perceived service quality models: are they still relevant? *The Marketing Review*, 15(1), 59-82.

This chapter aims to critically review the generic service quality models that have been established by academics to date and have become most prominent in the service quality area. The difficulty in defining the essence of perceived service quality encouraged further research in the development of service quality models. These models were meant to explain perceived service quality in a more systematic and structured way, and each model contributed to the development of another (e.g. Nordic model and Three-component models; SERVQUAL and SERVPERF) in chronological order. Also, the critique of older models triggered continual revisiting of the service quality area which thus led to improvement of already existing models as well as continuous tests of their relevance for various contexts.

Section 4.2 critically analyses six generic models of service quality (Grönroos, 1984; Parasuraman et al., 1985, 1988; Cronin and Taylor, 1992; Rust and Oliver, 1994; Dabholkar, Thrope and Rentz, 1996; Brady and Cronin, 2001) which were well established by academics. However, the debate on the dimensions of these models and their relevance to different service environments still takes place. Section 4.3 looks into some of those aspects that present limitations to the explanatory power of existing service quality models.

4.2 Service quality models

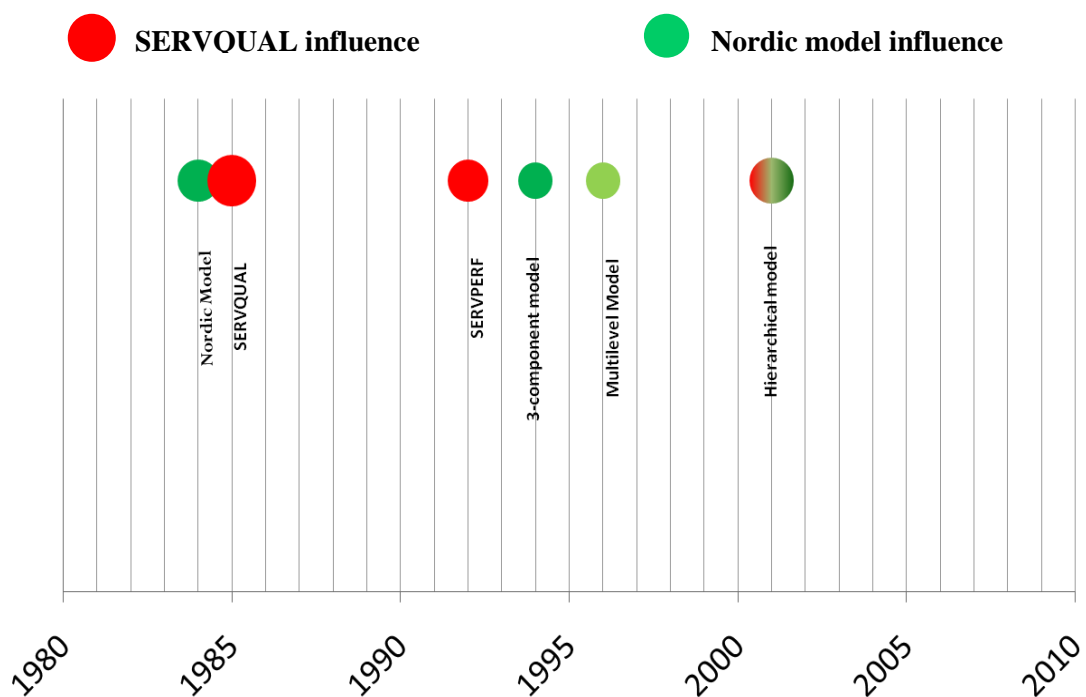
Over the past 25 years researchers have proposed a multitude of service quality models. Some studies focused on general models (e.g. Cronin and Taylor, 1992; Grönroos, 1988; Parasuraman, Zeithaml and Berry, 1988); others developed/revised models for particular industries (Aldlaigan and Buttle, 2002; Ko and Pastore, 2004; Lam and Zhang, 1999; Martinez and Martinez, 2007) (see Polyakova and Mirza, 2015).

In their research, Seth and Deshmukh (2005) examined 19 different SQ models previously reported in the literature. The most recent study of Martinez and Martinez (2010) discussed the past work on perceived service quality and included only six, “the most important service quality models” (p.29). However, the work of Seth and Deshmukh (2005) do not mention

three out of six models proposed by Martinez and Martinez (2010). This is one of the examples demonstrating that there is no final agreement on the exact number of SQ models. There is also no consensus on how to identify and rank the level of importance of the models. Therefore, assuming that researchers, in identifying service quality models, have attached to them certain levels of importance based on their literature review, the most important (read: most referenced) service quality models have been developed in the last three decades.

Historically, SQ models started with two schools: Nordic European (Grönroos, 1984) and North American/SERVQUAL (Parasuraman, Zeithaml and Berry, 1988). These schools triggered the development of more recent models (Figure 4.1) which have impacted on development of service quality thought and set the agenda for contemporary research (Figure 4.2).

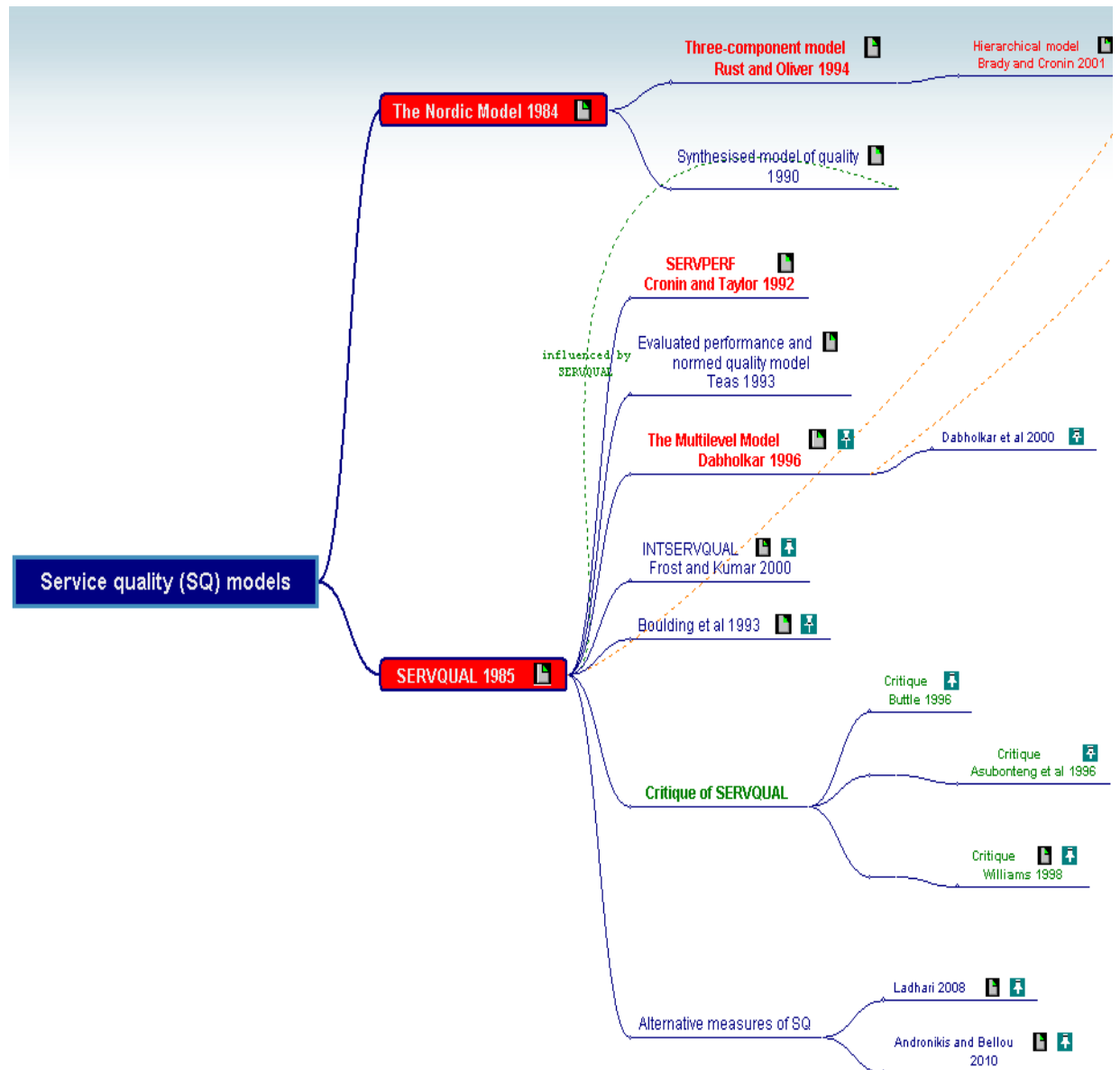
Figure 4.1: Service quality models - timeline



The Nordic perspective suggested two SQ dimensions - functional quality and technical quality. On the other hand, in the American model, or SERVQUAL as it is more commonly referred to, an SQ is the difference between the expected level of service and customer perceptions of the level received (Parasuraman et al., 1985). The authors proposed five SQ dimensions (reliability; responsiveness; assurances; empathy; and tangibility) of the service experience. Later critique of the American model led to the emergence of the SERVPERF

model (Cronin and Taylor, 1992) whilst the Nordic perspective triggered the development of a three-component model (Rust and Oliver, 1994). Unlike SERVQUAL, SERVPERF is a performance only measure of SQ and excludes consumer expectations due to them being consistently high. The three-component model includes service product (similar to technical quality), service delivery (similar to functional quality) and service environment (Polyakova *et al.*, 2012).

Figure 4.2: Service quality models – development



The next two models expanded the concept of SQ vertically (Dabholkar et al, 1996) and horizontally (Brady and Cronin, 2001). Vertical expansion suggested a multilevel nature in SQ: (a) higher order factor (retail SQ); (b) dimensions level; and (c) sub-dimensions level. Continual horizontal expansion conceptualised the five dimensions of the Dabholkar et al.,

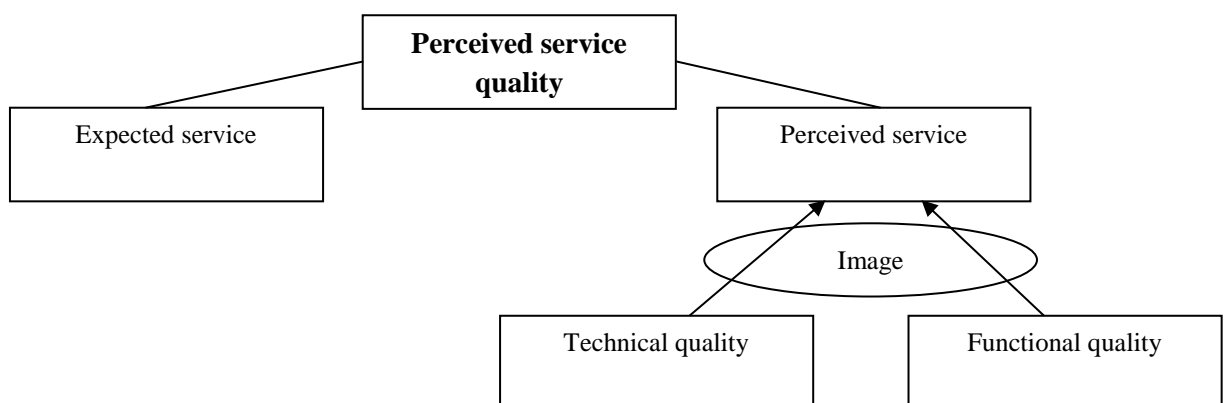
(1996) model into three (interaction quality, physical environment quality, and outcome quality) and proposed nine sub-dimensions.

Although Brady and Cronin's (2001) model was argued to have superiority with respect to earlier models (Ko and Pastore, 2005; Martinez and Martinez, 2010), it has contradictions that have not been addressed, such as direction of influence between levels of quality. To overcome these issues, Martinez and Martinez (2010) suggested using Brady and Cronin's (2001) model alongside the identification of the factors of SQ in the context of a particular industry.

4.2.1 Nordic European model

The Nordic perspective (Figure 4.3) suggested functional quality and technical quality as two service quality dimensions. Technical quality is what the consumers receive as a result of interaction with a service organisation, while functional quality is concerned with how consumers receive services. Technical quality and functional quality are antecedents of corporate image - the third dimension of the model (Grönroos, 1988). As consumers can see and participate in the service delivery processes, the argument was that the image of an organisation can be established through technical and functional quality. The importance of dimensions can vary from organisation to organisation and should be determined on this basis.

Figure 4.3: Nordic model



Source: adapted from Grönroos (1988)

Six sub-dimensions of service quality were identified (Grönroos, 1988): (1) professionalism and skills; (2) attitudes and behaviour; (3) accessibility and flexibility; (4) reliability and trustworthiness; (5) recovery; and (6) reputation and credibility. Professionalism and skills were regarded as contributing to the technical quality, with reputation and credibility regarded

as contributing to forming an image; the other four sub-dimensions are related to process and, therefore, correspond to the functional quality dimension (Polyakova and Mirza, 2015).

The Nordic model describes service quality with two or three dimensions, it also conceptually introduces the approach based on the 'disconfirmation theory'; actual service quality is compared to the level of expectations, and it can be better than expectations, equal to them or worse than expectations (Grönroos, 1984; Lehtinen and Lehtinen, 1991) (see Polyakova and Mirza, 2015).

As per Grönroos (2001), the Nordic model has been introduced conceptually but it lacks operationalisation, i.e. it does not offer a practical measurement tool. Therefore, it could be the reason why empirical studies on service quality have not utilised the model. Furthermore, there is evidence that in general the focus of the Nordic European school has been on “the conceptualisation of service quality without providing strong empirical evidence to support their position” (Ekinici, Riley and Fife-Schaw 1998, p. 63) (see Polyakova and Mirza, 2015).

The model was a pioneer in its contribution to the structured understanding of service quality components and in suggesting the directions for its improvement and measurement. However, there was criticism with regard to the sample used for testing the model, which included Swedish service firm executives who had participated in service-marketing seminars. Moore (1994) expressed doubt about the generalisability of the model to other service companies or to a specific customer segment as well as absence of country-specific bias. The second limitation of the model lies in the explanatory power of the survey findings. According to Ekinici (2002), the model lacks practicality for managers as it does not give insight into the measurement of the level of service performance compared to various types of expectation (i.e., the ideal level, minimum tolerable level of expectations). The third point of criticism states that although there were further attempts by Lehtinen and Lehtinen (1991) to develop the original Nordic model further, by proposing a two-dimensional approach, which consists of process and outcome quality, there were no real conceptual improvements to the original functional and technical quality dimensions as process and outcome quality are equivalent to functional and technical quality. Finally, the model presents a great theoretical base for understanding service quality, however, it does not have enough empirical evidence for its validity and dimensions (Ekinici, 2002).

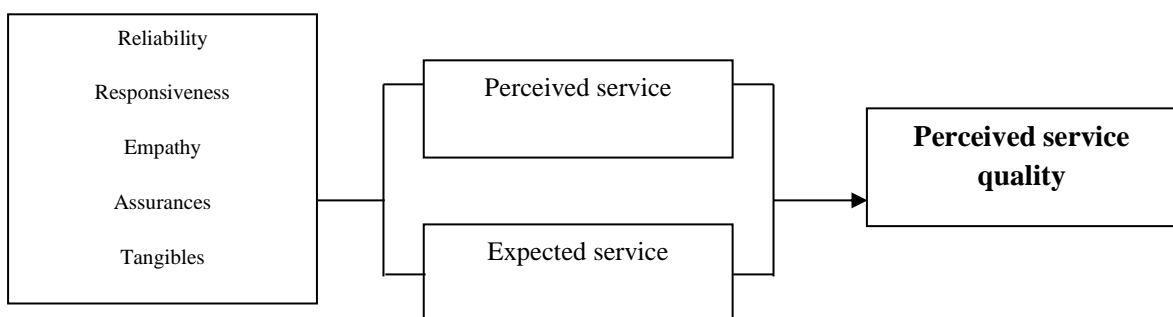
Nonetheless, the above critique of the model is a corner stone of the Nordic school overall. In the Nordic school, theory generation is considered more important to the development of a

discipline as opposed to theory acting as an antecedent to hypotheses-testing. It includes constant comparison between new and existing theory and, in certain instances, traditional theory testing (Grönroos and Gummesson, 1985, pp. 6-8) (see Polyakova and Mirza, 2015).

4.2.2 SERVQUAL

According to the American model, or SERVQUAL (Figure 4.4), an SQ is the difference between a) the expected level of service and b) customer perceptions of the level received (Parasuraman et al., 1985). Originally, Parasuraman et al. (1985) proposed ten components of SQ: 1) reliability; 2) responsiveness; 3) competence; 4) access; 5) courtesy; 6) communication; 7) credibility; 8) security; 9) understanding/knowing the customer; 10) tangibles.

Figure 4.4: SERVQUAL model



Source: adapted from Parasuraman et al. (1988)

In order to develop the SERVQUAL measurement scale, Parasuraman et al. (1988) formulated approximately 100 questions for rating a service on specific attributes, which reflect the ten basic components. Consumers were asked to rate the service in terms of both expectations and performance. After analysing the data, sets of question reflecting the same component were grouped together.

The revised scale was administered to a second sample and the questions were tested, with a result of a 22-question (item) scale measuring five basic dimensions of reliability, responsiveness, empathy, assurance and tangibles both on expectations and performance. A total of 44 questions were used since both expectations and performance were to be rated by 22 questions each (Polyakova and Mirza, 2015).

Therefore, ten components of SQ were merged into five dimensions (Parasuraman et al., 1988), namely: reliability; assurance; tangibles; empathy; responsiveness. The components of

reliability, tangibles and responsiveness remained distinct, the other seven components were absorbed by two dimensions - assurance and empathy. The abbreviation commonly used for these five dimensions is RATER. RATER dimensions represent five conceptually distinct facets of service quality, they are also related (Asubonteng et al, 1996). Over the years significant criticism has developed regarding the SERVQUAL instrument. This criticism can be divided into two areas – theoretical and operational issues (Buttle, 1996).

4.2.2.1 Theoretical issues with SERVQUAL

From a theoretical perspective, SERVQUAL is claimed to have paradigmatic flaws as it is based on an expectations-disconfirmation paradigm, not an attitudinal paradigm. Cronin and Taylor (1992) argue that adoption of a disconfirmation model is not appropriate in SERVQUAL's case as the disconfirmation model is widely used in customer satisfaction literature. Parasuraman et al. (1988) suggested that SQ was in many ways similar to a psychological attitude rather than an evaluation. If so, application of a disconfirmation paradigm to PSQ means ignoring differentiation between constructs of PSQ and customer satisfaction. More recently, research in service quality has moved to eliminate the usage of expectations in defining and measuring PSQ, and to use performance measures only (Martinez and Martinez, 2010). Other paradigmic issues with SERVQUAL are that it does not employ theories of economics, statistics and psychology (Andersson, 1992; Buttle, 1996). It is claimed that the work by Parasuraman et al. (1988) takes no account of the costs of improving service quality (economics); the data for their research was collected using ordinal scale methods such as Likert scales. However, a factor analysis was made, which is a method appropriate for interval-level data (statistics); and finally, no references to the large literature on the psychology of perception were made (psychology).

The next criticism of SERVQUAL from a theoretical perspective concerns the gaps model and expectations. Buttle (1996) claimed that there is little evidence that customers assess PSQ in 'Perception minus Expectations' gap terms. Ekinici and Riley (1998) suggest that SERVQUAL has no equivalent in theories of psychological function. Moreover, Iacobucci et al. (1994) suggested that expectations may be formed simultaneously with service consumption, might be not formed clearly enough or even be non-existent when serving as a standard for evaluating a service experience. Also, it was proposed that instead of expectations before service experiences, consumers may produce 'experience-based norms' afterwards (Kahneman and Miller, 1986). Criticism has also been levelled that SERVQUAL does not take into account the dynamics of how perception change over time (Buttle, 1996).

Expectations may not only rise over time (Parasuraman et al., 1988) but also fall (Buttle, 1996). Another flaw is that the SERVQUAL model does not incorporate possible difference in valence of positive and negative disconfirmation, i.e. customers will often criticise poor service performance and not praise exceptional performance (Buttle, 1996).

SERVQUAL has also been criticised for focusing on the process of service delivery rather than the outcomes of the service encounter (Richard and Allaway, 1993; Brady and Cronin, 2001). While another model by Grönroos (1984) contained three components of SQ - technical, functional and reputational quality, SERVQUAL seemed to miss them. However, Higgins et al. (1991) argued that outcome quality is already contained within dimensions of reliability, competence and security.

Criticism claims that SERVQUAL's five dimensions are not universal; items do not always statistically load on to the factors which one would a priori expect and there is a high degree of intercorrelation between the five dimensions (Buttle, 1996). The main critique is, however, based on availability of other models and the fact that SERVQUAL has still not been tested in all possible contexts.

4.2.2.2 Operational issues with SERVQUAL

The critique claims that the definition of 'expectations' is too broad and this might lead to different methods of SERVQUAL operationalisation. Definitions of expectations include 'desires', 'wants', 'what a service provider should offer', 'the level of service the customer hopes to receive', 'adequate service', 'normative expectations', and 'ideal standards' (Ladhari, 2008). Fundamental critique by Teas (1993) suggests that customers may be using one of six interpretations when evaluating their expectations: service attribute importance; forecasted performance; ideal performance; deserved performance; equitable performance; and minimum tolerable performance. Service attribute importance mean that customers may respond by rating the expectations statements according to the importance of each. In the case of forecasted performance, customers may respond by using the scale to predict the performance they would expect. Ideal performance is used to describe the optimal performance, or what performance 'can be'; whereas minimum tolerable performance describes what performance 'must be'. Interpretation of deserved performance explains the performance level that customers feel performance should be in the light of their investments. Finally, equitable performance is the level of performance customers feel they ought to receive given the perceived costs.

Williams (1998) pointed out that expectations in the model were tested by asking customers to rate the service of an excellent organisation. However, with the consideration that excellence can still be improved upon, the question is whether the notion of excellence is a final goal.

Another operational issue was pointed out by Buttle (1996) who argued that items of SERVQUAL are inadequate for capturing the variance within or the context-specific meaning of each dimension. Although Parasuraman et al. (1991) admitted that context-specific items can benefit SQ measurement by SERVQUAL, the new items should be similar to the existing SERVQUAL items. Also, the formulation of SERVQUAL items in both positive and negative ways leads to confusion in customer answers and error as a subsequent result. In line with this, Babakus and Boller (1992) identified the presence of the “method factor”; they suggested that item-wording may be responsible for producing factors that are consequences of the method used for developing the scale rather than conceptually meaningful dimensions of service quality.

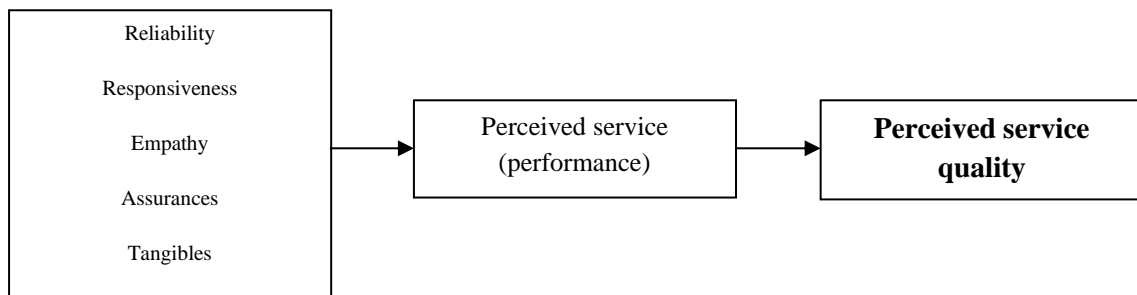
Different criticism grew from the fact that customers may assess SQ differently in different service encounters (moments of truth) throughout the same service experience (Buttle, 1996). This makes assumptions about the objectivity of overall service quality judgements doubtful. Usage of the seven-point Likert scale was also a subject of general criticism, however, not exclusively in SERVQUAL application, i.e. lack of verbal labelling of points (Lewis, 1993) and cause of higher frustration levels (Babakus and Mangold, 1992). Also, measuring expectations and perceptions in two questionnaire administrations might cause confusion and boredom among respondents, which in its turn may influence quality of data (Buttle et al., 1996).

Finally, the overall foundation of the SERVQUAL model was questioned. The new SERVPERF model by Cronin and Taylor (1992) excluded expectations from the model and its authors claimed that perception-only scores outperform E-P gap scores in predicting the overall evaluation of service. Other researchers proposed that service quality consists of various quality sub-dimensions and, therefore, forms both multidimensional and multilevel constructs (Dabholakar et al., 1996; Brady and Cronin, 2001).

4.2.3 SERVPERF

A subsequent critique of the American model led to the emergence of the SERVPERF model (Cronin and Taylor, 1992) (Figure 4.5) whilst the Nordic perspective triggered the development of a three-component model (Rust and Oliver, 1994) (Figure 4.6).

Figure 4.5: SERVPERF model



Source: adapted from Cronin and Taylor (1992)

Unlike SERVQUAL, SERVPERF is a performance only measurement of service quality, and excludes consumer expectations due to them being consistently high. Cronin and Taylor (1992) suggested that long-term service quality attitudes are better reflected by performance-based measures only. They tested a performance-based measure of service quality in four industries and found that this measure explained more of the variance in an overall measure of service quality than SERVQUAL. The new measurement SERVPERF model reduced the number of items that must be measured by 50% (44 items to 22 items), making it easier to use (Polyakova and Mirza, 2015).

The main arguments of Cronin and Taylor (1994) in favour of SERVPERF can be summarised as follows:

1) SERVQUAL conceptualisation of service quality was increasingly challenged by some authors (Carman, 1990; Babakus and Boller, 1992; Oliver, 1993) and the SERVPERF model is only one of those challenges. In line with this, Boulding et al. (1993) argued that service quality is directly influenced only by perceptions of performance as opposed to taking into account expectations.

2) Being a disconfirmation-based instrument, SERVQUAL was claimed to be an operationalisation tool for expectancy-disconfirmation (Boulding et al. 1993, Oliver 1993)

rather than a service quality measurement instrument. Cronin and Taylor (1992) suggest that long-term service quality attitudes are better reflected by performance-based measures only.

The authors of SERVQUAL responded with a backlash to some of the attacks by defending their tool and criticising SERVPERF. Parasuraman et al. (1994) argues that their model is justified by significant theoretical and empirical research to support their Perceptions-Expectation (P-E) gap theory. They also point out that SERVQUAL attempts to measure the attitude level; while Cronin and Taylor (1992) refers to studies focusing on the formation of attitudes. Supported by the research, convergent and discriminant validity of SERVQUAL is argued to be as good as or better than SERVPERF (Parasuraman et al., 1994). Moreover, any of Cronin and Taylor's (1992) improvements in the explanation of variances between SERVQUAL and SERVPERF refer to the fact that in regression analysis the dependent variable was a performance-based measure. Another argument in defence of SERVQUAL is that their P-E measures represent better diagnostic value, despite the fact that they might have less predictive potential than a perceptions only measurement (Parasuraman et al., 1994).

Along with Cronin and Taylor (1992), who supported the theoretical superiority of the SERVPERF scale, the empirical study on the advertising industry by Quester and Romanniuk (1997) showed that SERVPERF outperformed one of the modifications of the SERVQUAL measurement. A study in the supermarket context by Mehta, Lalwani and Han (2000) concluded that the modified SERVQUAL worked better in a retailing context where there was a greater focus on the product; while SERVPERF worked better in a retailing context where the service element is more important (i.e. an electronic goods retailer). Another performance-based model, HEdPERF (Abdullah, 2006), was developed for measuring service quality specifically in higher education. Its 41 items included the academic components as well as aspects of the total service environment as experienced by the student. A comparative study of SERVQUAL, SERVPERF and HEdPERF by Brochado (2009) found that measurement capability of each SERVPERF and HEdPERF was the best, but suggested that is impossible to choose the better out of the two. According to Rodrigues, Barkur, Varambally and Motlagh (2011), SERVPERF and SERVQUAL differ considerably in terms of the outcomes of their two metrics. Therefore, in order for researcher to benefit from the meaningful measurement, Rodrigues et al. (2011) suggested applying both SERVPERF and SERVQUAL and drawing combined implications (Polyakova and Mirza, 2015).

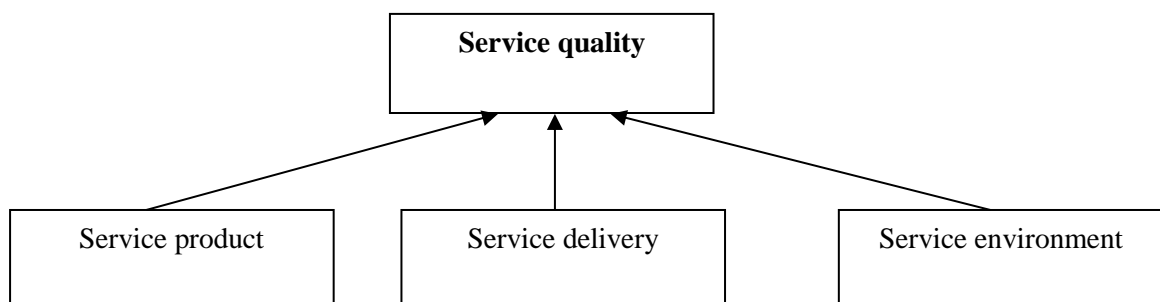
Carrillat et al. (2007) employed meta-analysis in their study findings, which suggested that both scales (i.e. SERVPERF and SERVQUAL) are adequate and equally valid predictors of

overall service quality. However, the authors believe that the SERVQUAL scale could be of greater interest for practitioners due to its richer diagnostic value (i.e. comparing customer expectations of service versus perceived service across dimensions). Furthermore, results of the study revealed that the need to adapt the measure to the context of the study in case of SERVPERF is less than in the case of SERVQUAL. Another finding by Carrillat et al. (2007) is linked to the culture/language of the country in which the research is being conducted; an aspect previously overlooked by other researchers. The predictive validity of SERVQUAL and SERVPERF on overall service quality was found to be higher for non-English speaking countries and countries with lower levels of individualism. However, Carrillat et al. (2007) suggest that the reason for this is the employment of modified versions of SERVQUAL in those countries rather than the cultural context itself. Indeed, it has been claimed that the dichotomy between individualism and collectivism is too simplistic to account for personal differences in so-called “collectivist” or “individualist” societies (Morales and Ladhari, 2011) (see Polyakova and Mirza, 2015).

4.2.4 The three-component model

Works by Grönroos (1984) and Bitner (1992) became the basis for the three-component model developed by Rust and Oliver (1994) (Figure 4.6). Its focus was the relationships that exist between service quality, service value and customer satisfaction.

Figure 4.6: Three-component model



Source: adapted from Rust and Oliver (1994)

Three distinct components - service product, service delivery and service environment – were proposed as essential elements of service quality. The service product element consists of what consumers get as a result of service (i.e. outcome) and also of the consumer’s perception of the service. The service delivery element stands for the consumption process including any relevant events that occur during the service act. The service environment element represents

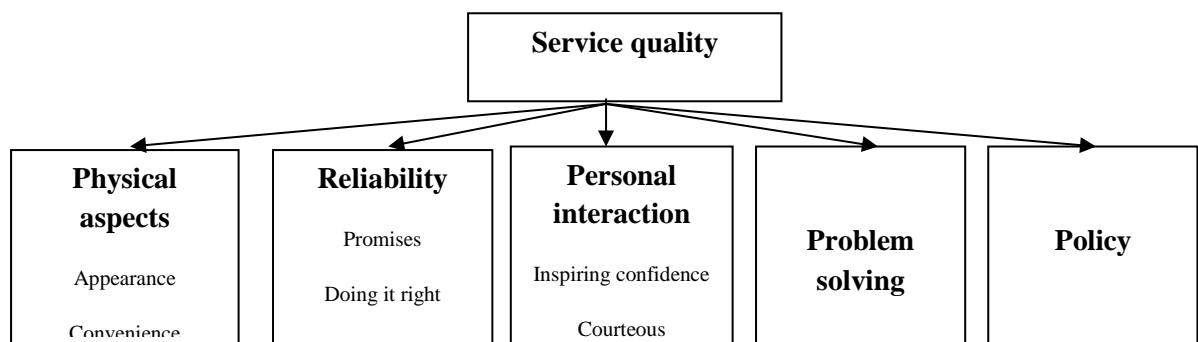
the internal and external atmosphere in which a service takes place. Although there was support found for analogous models in retail banking (McDougall and Levesque, 1994), Rust and Oliver did not test their conceptualisation. Study by Brady and Cronin (2001) stated that support has been found for similar models in retail banking and offered empirical confirmation in their research. Yet the evidence for application of the model in its original form is not available; nevertheless, it enhanced further models and equipped them with deeper theoretical understanding of the service quality concept (Polyakova and Mirza, 2015).

4.2.5 Multilevel model

The concept of SQ was expanded vertically by Dabholkar et al. (1996) who produced a new Retail Service Quality Scale (RSQS). The authors suggested a multilevel nature of SQ – 1) higher order factor (retail SQ); 2) dimensions level; and 3) sub-dimensions level (Figure 4.7).

In this model retail service quality is viewed as a higher-order factor defined by two additional levels of attributes (dimension level and sub-dimension level). The model focused on service quality in the retail environment and it was developed and empirically validated by Dabholkar et al. (1996) using a triangulation of research techniques - interviews with several retail customers; in-depth interviews with six customers; and a qualitative study that monitored the thought process of three customers during an actual shopping experience. It included a 28-item scale, of which 17 items were from SERVQUAL and 11 items were developed using qualitative research (Polyakova and Mirza, 2015).

Figure 4.7: Multilevel model



Source: adapted from Dabholkar et al. (1996)

According to Dabholkar et al. (1996), retail service quality has a hierarchical structure comprising five basic dimensions, namely: 1) Physical aspects – Retail store appearance and store layout; 2) Reliability – Retailers keep their promises and do the right things; 3) Personal interaction – Retail store personnel are courteous, helpful, and inspire confidence in

customers; 4) Problem solving – Retail store personnel are capable of handling returns and exchanges, customers' problems and complaints; and 5) Policy – Retail store's policy on merchandise quality, parking, operation hours, and credit cards. It also includes six sub-dimensions: appearance; convenience; promises; doing it right; inspiring confidence; and courteousness. Similar to Cronin and Taylor's (1992) SERVPERF, Dabholkar et al. (1996) used only performance-based measures and found that their scale possessed strong validity and reliability and adequately captured customers' perceptions of retail service quality. Dabholkar et al. (1996) also considered that service quality is defined by and not formed by several dimensions, which made their conceptualisation very different from previous models (Polyakova and Mirza, 2015).

The RSQS has been widely applied in various retail formats within various cultural contexts (e.g. Das, Kumar and Saha, 2010; Kim and Jin, 2002; Mehta et al., 2000; Ravichandran, Jayakumar and Abdus Samad, 2008; Siu and Cheung, 2001; Vazquez, Rodriguez-Del Bosque, Diaz and Ruiz, 2001). Leung and Fung (1996) developed their own scale to test retail service quality, however, this was of limited versatility and, therefore, applicability. In contrast, the RSQS has been widely replicated in various studies as well as across numerous retail formats (Boshoff and Terblanche, 1997; Das et al., 2010; Kaul, 2007; Kim and Jin, 2002; Nadiri and Tumer, 2009; Nguyen and Le Nguyen, 2007; Ravichandran et al., 2008; Siu and Cheung, 2001). Some of these studies (Boshoff and Terblanche, 1997; Das et al., 2010; Nadiri and Tumer, 2009) supported the dimensional structure of RSQS and found it highly suitable for application within their countries. Other studies did not support the five-dimensional structure of RSQS due to inconsistencies in their number of dimensions in comparison with the original RSQS (Siu and Cheung, 2001; Nguyen and Le Nguyen, 2007; Ravichandran et al., 2008) and due to inadequacy to a specific country's context (Kim and Jin, 2002; Kaul, 2007). The latter has been supported by Keillor et al. (2004) who found that depending on the differences from one country and/or culture to another some elements generally associated with service encounters may be significant influencers of behavioural intentions while others may have less influence (Polyakova and Mirza, 2015).

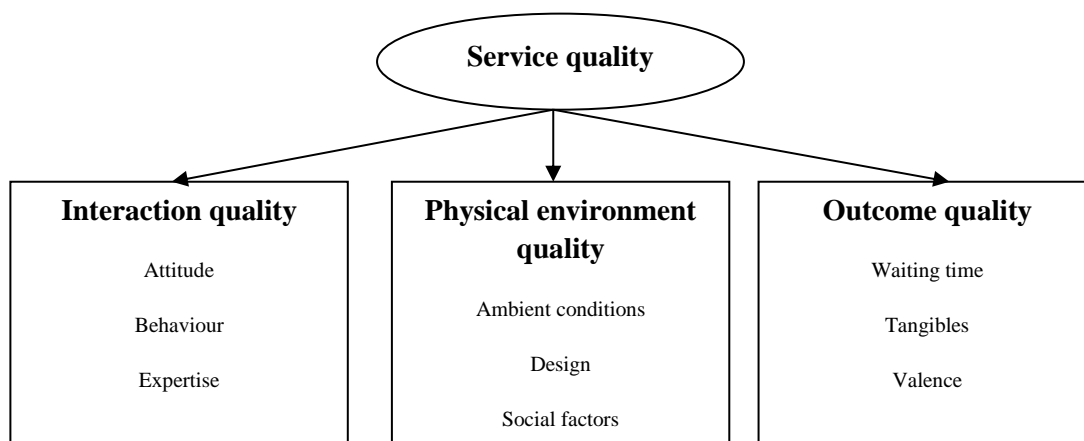
Apart from the above replication studies, some researchers proposed their new scales. Thus, Mehta et al. (2000) developed a modified scale by combining RSQS and SERVPERF models, and Vazquez et al. (2001) proposed CALSUPER scale developed on the basis of RSQS and SERVQUAL instruments.

Dabholkar et al's (1996) model has not become universally accepted across contexts and countries; it has been mostly applied in the retail industry. However, its main contribution to the body of research is description of service quality as a multilevel concept that leads to further developments of SQ models.

4.2.6 Multidimensional and hierarchical model

Continual horizontal expansion by Brady and Cronin (2001) conceptualised the five dimensions of the Dabholkar et al., (1996) model into three (interaction quality, physical environment quality, and outcome quality) and proposed nine sub-dimensions (Figure 4.8).

Figure 4.8: Multidimensional and hierarchical model



Source: adapted from Brady and Cronin (2001)

In their model, Brady and Cronin (2001) combined the three-component model by Rust and Oliver (1994) and the multilevel conceptualisation of service quality by Dabholkar et al., (1996). The service quality is formed by three primary dimensions: interaction quality, physical environment quality and outcome quality. Each of these dimensions is formed by three corresponding sub-dimensions such as: attitude, behaviour and experience (interaction quality); ambient conditions, design and social factors (physical environment quality); waiting time, tangibles and valence (outcome quality) (Polyakova and Mirza, 2015).

Martinez and Martinez (2010) note that Brady and Cronin (2001) propose that “sub-dimensions” influence quality dimensions, i.e., sub-dimensions directly contribute to quality dimensions’ perception. However, their model is operationalised in a different way; dimensions are variables that influence sub-dimensions” (Martinez and Martinez, 2010, p.

33). It points out a contradiction that has not been addressed by Brady and Cronin and raises concern for interpreting the conceptualisation of this model (Polyakova and Mirza, 2015).

Capitalising on developments of previous models, the model by Brady and Cronin (2001) gained superiority with respect to earlier models (Ko and Pastore, 2005; Martinez and Martinez, 2010). However, it has contradictions that have not been addressed (such as direction of influence between levels of quality). In their review of service quality models, Seth and Deshmukh (2005) stated the following categories of research issues related to service quality: 1) relation between various attributes of service; 2) role of technology (e.g. information technology); 3) measurement issues. Thus, a critique of Brady and Cronin's model by Martinez and Martinez (2010) could fall into the first and possibly the third category due to the unclear direction of influence between levels of quality. However, Seth and Deshmukh (2005) do not include models by Rust and Oliver (1994), Dabholkar et al., (1996) and Brady and Cronin (2001) in their review. This fact questions comprehensiveness of the review as it completely missed the models developed multi-level and hierarchical approach to conceptualisation of service quality (Polyakova and Mirza, 2015).

Several authors replicated or modified, to different extents, the Brady and Cronin's (2001) model by incorporating the hierarchical and multidimensional approach to service quality. Thus, Kim and Jin (2002) and Ko and Pastore (2004) partly reflected Brady and Cronin's (2001) conceptualisation in the development of their model for specific industries (restaurants and recreational sport industry respectively) (Polyakova and Mirza, 2015). Lui (2005) adapted the same service quality structure for his research in six different service areas, however, the multidimensional and multi-level nature of service quality have not been tested with a confirmatory method. The study by Jones (2005) integrated an additional dimension of communications into Brady and Cronin's structure of service quality, and the results revealed the significance of this new dimension for overall service quality in three out of four industry samples.

In an attempt to improve Brady and Cronin's (2001) conceptualisation further, Martinez and Martinez (2007, 2008) focused on two areas, namely the philosophy of the service quality measurement and the nature of causal relationships between dimensions and sub-dimensions of service quality. Having built up their argument on the studies by Law, Wong and Mobley (1998), Dabholkar et al. (1996) and Edwards (2001), Martinez and Martinez (2007, 2008) found some inconsistencies in causal relationships between dimensions and sub-dimensions in Brady and Cronin's model. They claimed that these inconsistencies made methodological

legitimacy of further replications/modifications of the model questionable. The argument is that the model and its modifications contain an implicit assumption of the dimensions as antecedents of service quality. Having items that represent the dimensions and the overall service quality allows for the possibility of adding new dimensions when developing the models/modification on the basis of Brady and Cronin's (2001) study. Martinez and Martinez (2007, 2008) claim that the dimensions are not antecedents of service quality but expressions of the complexity of the construct. As a result, they proposed using a third-order reflective hierarchical model. This is in contrast with instrumentalism and the formative models (Borsboom, Mellenbergh and van Heerden, 2003; Borsboom et al., 2004) and in line with definition of service quality as an attitude (Parasuraman et al., 1988). The above suggestions by Martinez and Martinez (2007, 2008) is a call to account for the hierarchy of perceptions developed by customers in different levels of abstraction (i.e. overall service quality, dimensions and sub-dimensions), and if changes in attitude towards overall service quality occur, there is a need to ensure that this is captured in changes in the dimensions, sub-dimensions and observable indicators (Polyakova and Mirza, 2015).

From practical point of view, the third-order hierarchical model is important in terms of strategic and tactical decision-making in the organisations (Ko and Pastore, 2005). It provides strategic concepts for the improvement of various areas (dimensions) as well as tactic tools (subdimensions) and performance evaluation (items). Moreover, a reflective hierarchical model allows researchers to approach the service quality with 'customer reality' in mind, i.e. it is uncertain whether customers judge service quality attributes and overall evaluation of service quality separately and do not extrapolate their overall attitude to the individual service areas or encounters (Polyakova and Mirza, 2015).

4.3 Contemporary considerations for service quality models

The models discussed in previous sections of the chapter made a significant contribution to the field of service quality. All of them attempted to offer improved conceptualisation of service quality and its dimensions. Although the model by Brady and Cronin (2001) has received some critique, it is recommended as “an excellent basis for proposing the attributes of service quality that can be measured” (Martinez and Martinez, 2010, p.110).

To date, there are various recommendations on how to improve the model's soundness and operational adequacy. Separate measurement of overall service quality has been recommended to discover whether customers make clear distinction between service quality

attributes and overall evaluation of service quality (Polyakova and Mirza, 2015). In turn, this would help to identify if extreme overall evaluation of service quality impacts on the evaluation of attributes (Martinez and Martinez, 2010). Qualitative research could explore to what extent evaluation of overall service quality is influenced by other concepts contributing to the general feelings towards service (Polyakova and Mirza, 2015).

Another recommendation is to employ the importance-performance analysis - IPA (Martilla and James, 1977), which is considered to be a “useful screening tool” (Rial, Rial, Varela and Real, 2008, p.180) with growing potential. Recently, importance-performance analysis has been considered as a non-traditional alternative for assessing perceived service quality (Martinez and Martinez, 2010; Yildiz, 2011). It represents a technique for identifying those attributes of a service that need improvement or that can incorporate cost-saving conditions without significant detriment to overall quality (Martinez and Martinez, 2010). The logic of analysis comprises of a comparison between performance and importance of each relevant attribute (Abalo, Varela and Manzano, 2007). In the context of service quality evaluation, performance is a reflection of customer perceptions towards current service delivery; and importance is a representation of a relative value that customers assign to a service. The comparison between performance and importance of service attributes can provide management with useful information and assist in making decisions on service management priorities (Polyakova and Mirza, 2015).

However, there are still several aspects that have not been addressed closely in the development of service quality models, namely: static/dynamic approach to service quality; stage of service consumption; and the role of valence.

4.3.1 Static versus dynamic approach to service quality

The move from ‘good-dominant’ towards ‘service-dominant’ logic (Vargo and Lusch, 2008) is based on the notion of service co-creation between suppliers and customers. The process of co-creation has an ultimate result that all participants aim to benefit from; this result is the combination of value proposition and value actualisation (Gummesson, 2007). If the commitment to the contemporary ‘service-dominant’ vector is made, then there is need to explore what role consumers play in service quality co-creation. Several studies (Arnould and Price, 1993; Kupers, 1998; Schembri and Sandberg, 2011) have confirmed that consumers do not passively receive service quality but actively co-construct the quality of service they experience. However, in their current format, existing service quality models do not allow for

the scope of going beyond the set of their fixed dimensions. This fundamentally contradicts the dynamics of 'service-dominant' logic as well as value/quality co-creation process. Moreover, the dimensional structure of service quality preserves the status quo of the models and through this creates a rationale for neglecting the experiential meaning of service quality (Schembri and Sandberg, 2011) (see Polyakova and Mirza, 2015).

To be able to shift from established and predefined terms of service quality research, Schembri and Sandberg (2011) suggest taking an interpretivist approach and placing the focus on the consumer's lived experience as a source of service quality. This is in line with Martinez and Martinez (2010) who recommend updating the literature of service quality with studies that use phenomenographic techniques and ethnographics in order to 're-discover' the meaning of quality (Polyakova and Mirza, 2015).

4.3.2 Stage of consumption

In continuation with the previous argument in favour of 'service-dominant' logic, research evidence shows that customer service evaluations do not exist statistically, but change over time under the influence of a customer's experience (Bolton and Lemon, 1999; Dagger and O'Brien, 2010; Jiang and Rosenbloom, 2005). Thus, it was found that longer-term customers tend to base their evaluations more on credence qualities (i.e. more complex to evaluate service attributes), while novice customers are more likely to base evaluation on search qualities (i.e. easy to evaluate service attributes) (Dagger and Sweeney, 2007). Also, as longer-term customers have more time to acquire the necessary information and knowledge about a service, it helps them to fully evaluate the service experience, its benefits and outcomes (Dagger and O'Brien, 2010). Moreover, due to differences in knowledge and experience levels, novice and experienced customers may assign different weights to service attributes (Alba and Hutchinson, 1987) and have perceptions of quality, satisfaction and loyalty from the standpoint of their stage of consumption (Mittal and Katrichis 2000).

A recent study by Avourdiadou and Theodorakis (2014) on customers of sport and fitness centres showed that the relationship between overall service quality and satisfaction is significant for both novice and experienced customers; however, the impact of satisfaction is significantly greater among experienced customers. It has also been found that in early consumption stages customers tend to rely more on their cognitive judgements in developing behavioural intentions. Alongside Oliver's (1997) idea that overall service quality appraisals do not require extensive experience with the firm, Avourdiadou and Theodorakis (2014)

support the notion that novice customers rely on a less complex scheme to evaluate service quality and to develop future behaviours.

4.3.3 Valence as service quality attribute

Brady and Cronin (2001) suggested that the purpose of the valence concept is to explain attributes which determine a customers' belief in the service (a good or bad outcome) regardless of their evaluation of any other aspect of the experience. This good or bad belief reflects the degree to which the object of interest is considered favourable or unfavourable (Mazis, Ahtola and Klippel, 1975) (Polyakova and Mirza, 2015).

Previous service quality research (Cronin and Taylor, 1992; Parasuraman et al., 1985, 1988) justifies inclusion of valence among the service quality sub-dimensions on the basis that service quality is similar to a psychological attitude rather than rational evaluation. Martinez and Martinez (2010) argue that although valence is close to the concept of satisfaction, it is not necessarily associated with service quality. As valence is outside the direct control of service management, "its definition is not concordant with the other attributes" (Martinez and Martinez, 2010, p.112). Valence may have an impact on a service experience regardless of service quality perception; therefore it exploring it through qualitative research is suggested along with other concepts influencing service quality perceptions (Polyakova and Mirza, 2015). Some studies (Smith et al., 2014; Tian-Cole and Crompton, 2003) suggested that factors which are outside of the fitness centre's service itself can include a customer's physique, the weather, nostalgia, escape or socialising. Smith et al. (2014) argue that if customers exercise for fitness and motivated by body or appearance-oriented reasons, their physique plays an important role in attaining key benefits and satisfaction.

Valence may be a very useful aspect for the improvement of existing service quality models or for the development of new ones based on a dimensional structure. The notion of valence has been brought into the equation of static models in order to create a place for legitimate consideration of the unknown. This supports the earlier suggestion that other philosophies are needed to investigate and discover 'the unknown'. Although a researcher can make a conscious decision not to approach 'the unknown' within the static framework of a model, the presence of 'valence' could be reduced by directing the research to answer the following questions: what position (passive vs. active) customers take in co-creation of service quality (Schembri and Sandberg, 2011); what their level of self-awareness is; what the nature of their

motivations are (e.g. intrinsic/extrinsic) (Thatcher et al., 2009) (see Polyakova and Mirza, 2015).

4.4 Summary

Over the past 25 years researchers have proposed a multitude of service quality models. Some studies have focused on general models (e.g. Cronin and Taylor, 1992; Grönroos, 1988; Parasuraman, Zeithaml and Berry, 1988); others have developed models for particular industries (Aldlaigan and Buttle, 2002; Ko and Pastore, 2004; Lam and Zhang, 1999; Martinez and Martinez, 2007). The model by Brady and Cronin (2001) has been revealed to have superiority with respect to earlier models; however, it has conceptual and methodological contradictions that have not been addressed (Polyakova and Mirza, 2015).

The analysis of series of studies (Carrillat, Jaramillo and Mulki, 2007; Gummesson, 2007; Kaul, 2007; Keillor, Hult and Kandemir, 2004; Kim and Jin, 2002; Martinez and Martinez, 2010; Morales and Ladhari, 2011; Schembri and Sandberg, 2011) indicates that there is a number of issues with the existing models. Among these issues are uncertainty of philosophical stance; consideration of customer's consumption stage; and 'legitimation' of valence as a service quality attribute. Alongside this, some authors (Gummesson, 2007; Vargo and Lusch, 2008) have made suggestions to consider services as a combination of value proposition and value actualisation. This is instead of treating them as entities described with service characteristics: intangibility; inseparability; heterogeneity; perishability. There is evidence that these service characteristics have considerable limitations (Polyakova and Mirza, 2015), such as restricting the replacement of a static view on service quality with a more dynamic approach. The latter is in line with several studies (Arnould and Price, 1993; Kupers, 1998; Schembri and Sandberg, 2011), which have confirmed that consumers actively co-construct the quality of service they experience (Polyakova and Mirza, 2015). The issue of multidimensionality in service quality models has been brought up by Martinez and Martinez (2010) with a subsequent suggestion of different options for researching service quality.

CHAPTER FIVE – SERVICE QUALITY MODELS IN THE FITNESS INDUSTRY

5.1 Introduction

This chapter is substantially based on following previously published journal articles: Polyakova, O. and Mirza, M. (2015). Perceived service quality models: are they still relevant? *The Marketing Review*, 15(1), 59-82; Polyakova, O. and Mirza, M. (2016). Service quality models in the context of the fitness industry. *Sport, Business and Management: An International Journal*, 6(3), 360-382.

This chapter critically reviews literature on existing service quality models. Sections 5.2 and 5.3 provide analysis of service quality in the fitness industry and their structure, i.e. dimensions. The previous chapter considered a number of aspects that have not been addressed closely in the development of generic service quality models (i.e. static/dynamic approach to service quality, stage of service consumption and the role of valence). In the context of fitness services, the literature indicates that the frequency of customers' attendance has links to customers' evaluations of quality and their satisfaction with services. A broad range of factors can influence the frequency of customers' attendance both simultaneously and in different directions. However, this important aspect of attendance has not been considered in any of the models. Therefore, Section 5.4 looks at the frequency of participation in relation to physical activity and fitness services.

5.2 Service quality models in the fitness industry

Chelladurai et al. (1987) became pioneers with their proposal of the first scale for measuring service quality in fitness centres - Scale of Attributes of Fitness Services (SAFS). The scale included five dimensions: professional; consumer; peripheral; facilitating goods; and goods and services. Later, this scale was re-developed into the Scale of Quality in Fitness Services (SQFS) by Chang and Chelladurai (2003). The full list of the service quality models in the fitness industry is presented in Table 5.1.

As the 1990s saw further critique focused on the SERVQUAL instrument (generally beginning to be considered inadequate for specific industries), Kim and Kim (1995) developed the Quality Excellence of Sports Centers (QUESC) scale consisting of 33 items. In order to construct the scale, the authors used a review of literature on service quality and

focus group interviews. Initially, the QUESC instrument consisted of 45 items, out of which 33 stayed in the final version of the scale. These 33 items fall under 11 dimensions supported by exploratory factor analysis, namely: Ambience; Employee Attitude; Reliability; Information; Programming; Personal Consideration; Privileges; Price; Ease of Mind; Stimulation; and Convenience. However, three out of the eleven dimensions (i.e. price, privilege and stimulation) included only one item (Polyakova and Mirza, 2016).

Table 5.1: Service quality models and their dimensions in the fitness industry

Year	Author	Model	Number of dimensions	Dimensions
1987	Chelladurai et al.	Scale of Attributes of Fitness Services	5 dimensions	professional; consumer; peripheral; facilitating goods; goods and services.
1995	Kim and Kim	Quality Excellence of Sports Centres (QUESC)	12 dimensions, 43 items	employee attitude; employee reliability; social opportunity; programs offered; ambience; information available; personal considerations; price; privilege; ease of mind; stimulation; convenience.
2003	Chang and Chelladurai	Scale of Quality in Fitness Centres (SQFS)	9 dimensions, 3 stages	3 in the input stage (Service Climate, Management Commitment to Service Quality, and Programmes); 5 in the throughput stage (Task Interactions with Employees, Interpersonal Interactions with Employees, Contact with Physical Environment, Contact with Other Clients, and Service Failures and Recovery); 1 in the output stage (Service Quality).
2004	Alexandris et al.	Modification of Brady and Cronin (2001) model	3 dimensions, 14 sub-dimensions	Interaction Quality (6 items); Physical Environment (3 items); Outcome Quality (5 items)
2005	Afthinos et al.	Kim and Kim's	43 items	As in Kim and Kim(1995)

		(1995) QUESC		
2005	Ko and Pastore	Modification of Brady and Cronin's (2001) and Dabholkar et al.'s (1996) models	4 generic dimensions and 11 sub-dimensions	Four generic dimensions: program quality; interaction quality; outcome quality; physical environment quality
2005	Lam et al.	Service Quality Assessment Scale (SQAS)	6 dimensions, 31 items	six dimensions: personnel: program; locker room; physical facility; workout facility; and child care plus 31 items.
2007	Lagrosen and Lagrosen	Quality dimensions (Grounded-theory approach to a multiple-case study)	3 dimensions and 8 enablers: 2 “direct factors” and 9 “indirect factors”	Physical change; Mental change; Pleasure plus 8 enablers Technical competence; Relational competence Facilities; Training; Evaluation; Empowerment; Recruitment; Climate; Service design; Leadership; Organisational consciousness
2009	Moxham and Wiseman	Service quality on the corporate level and the operational level	3 criteria	retention rates; adherence to professional standards; adherence to internal standards.
2011	Yildiz	SQS-FC (Service Quality Scale for Fitness Centres)	4 dimensions, 25 sub-dimensions	Personnel; Physical Environment; Supporting Services; Program plus 25 sub-dimensions

Source: Polyakova and Mirza (2016), p.369

A study carried out by Papadimitriou and Karteroliotis (2000) in Greece did not support dimensions of QUESC based on a Korean sample. Instead, Papadimitriou and Karteroliotis (2000) proposed a 4-dimensional model that included Instructor Quality; Facility Attraction and Operation; Programme Availability and Delivery; and Other Services. Lam et al. (2005) questioned the statistical stability of QUESC single-item dimensions and raised the argument against the generalizability validity of the scale due to the unique nature of the

Korean context in which fitness centres operate. Afthinos et al. (2005) applied the QUESC model in Greek fitness centres in their research aimed at the identification of the most important aspects of service delivery from the perspective of users; however, they did not critique the instrument.

On the basis of the models developed earlier - the SERVQUAL (Parasuraman et al., 1988), the REQUAL measuring quality in recreational services (Crompton and MacKay, 1991), and the Scale of Attributes of Fitness Services (SAFS) (Chelladurai et al., 1987) - Chang and Chelladurai (2003) developed the Scale of Quality in Fitness Services (SQFS). SQFS included some items from previous models as well as items generated by the authors themselves. The content validity of the items belonging to different dimensions was assessed by a panel of 15 experts and 4 faculty members. The scale went through purification and from the initial 79 items confirmed by experts was reduced to 35 items that measure the following dimensions: Service Climate; Management Commitment to Service Quality; Programmes from the input stage; Interpersonal Interaction; Task Interaction; Physical Environments; Other Clients; Service Failures/Recovery from the throughput stage; and Perceived Service Quality from the output stage. These nine dimensions were confirmed through confirmatory factor analysis and proved to be independent of each other. As SAFS (1987) became one of the models on the basis of which SQFS was developed, Lam et al. (2005) critique SAFS on thoroughness of methodology involved in scale development, such as lack of qualitative research, employing the input of only “three professors of sport management, one university fitness instructor, and six staff members of a commercial fitness club” (p. 163, Chelladurai et al., 1987), and lack of statistical procedures to examine the factor structure of the SAFS. Although, this version of SQFS (2003) employed a panel of experts and faculty members, there is still a lack of qualitative research involved in obtaining the customers’ perspectives on service quality. This major limitation of the comprehensiveness of the scale was recognised by Chang and Chelladurai (2003) themselves; they suggested that future research should involve fitness club members as well as the addition of further relevant dimensions (Polyakova and Mirza 2016).

Another scale is the Service Quality Assessment Scale (SQAS), which was developed by Lam et al. (2005). The SQAS consists of 31 items and six dimensions including personnel; programme, locker room; physical facility; workout facility; and child care. Rigorous methodological procedures were involved in scale development, including a review of literature, field observations, interviews, modified application of the Delphi technique, a pilot study and exploratory factor analysis. Lam et al. (2005) recommended that other researchers

re-examine the SQAS using different samples to study factor structure further. The comparison to another scale is suggested “if the scale were developed with the same degree of emphasis on scale construction and specificity for the health–fitness setting, for convergent validity” (p. 106). The scale does not offer the measurement of overall perceived service quality (Martinez and Martinez, 2010) neither the measurement of perceived quality of individual dimensions. The model also does not include the outcome quality proposed by Brady and Cronin (2001) and Ko and Pastore (2004).

Brady and Cronin’s (2001) model served as the basis for study by Alexandris et al. (2004). Alexandris et al.’s (2004) model is based on three dimensions of service quality: interaction quality; physical environment quality; and outcome quality. They developed following sub-dimensions: behaviour, attitude, and expertise in the interaction dimension (nine items); ambient conditions, design, and social factors in the physical environment quality (seven items). Authors particularly emphasised the importance of physical environment quality, similarly to Lentell (2000) and Afthinos et al. (2005). More recently, study by Liu et al. (2009) revealed that, in particular, cleanliness of facilities can strongly negatively impact on customer satisfaction if the facilities are dirty; however, when the facilities are clean, it does not strongly affect customer satisfaction. Moreover, cleanliness was found to influence feelings of pleasantness, trust and approachable behaviours (Wakefield and Blodgett, 2016). In their outcome quality sub-dimension, Alexandris et al. (2004) proposed five items which were suggested in the literature and were to measure the possible consequences of participation in physical fitness activity. Nevertheless, other sub-dimensions of waiting time, tangibles and valence were excluded from the model with no explanation provided by Alexandris et al. (2004). While some of the items were adapted from Brady and Cronin (2001) (e.g. most of the items in interaction quality), some were left out or totally new ones were developed (e.g. outcome quality). The structure of items proposed by Alexandris et al. (2004) does not reflect a reliability item, a responsiveness item or an empathy item as suggested by Brady and Cronin (2001). Apart from this, no qualitative techniques were employed to discover new items of dimensions, nor were any confirmatory activities (such as expert opinions) utilised. Neither does the model provide overall measurement for dimensions of interaction, physical environment quality, outcome quality, nor overall service quality. Alexandris et al. (2004) recognize the limitations of the model in the sample size (175 members of a single private fitness club in Greece) and suggest testing the model with larger sample sizes from different sport service organisations. Therefore, issues exist with statistical

validity of the second-order factors (sub-dimension) and the overall generalisability of the model (Polyakova and Mirza, 2016).

Similarly to the previous model by Alexandris et al. (2004), Ko and Pastore (2005) utilised several aspects of Brady and Cronin's (2001) and Dabholkar et al.'s (1996) works within the context of recreational sport; thus, the Scale of Service Quality in Recreational Sport (SSQRS) was developed. On the basis of the review of literature on service quality, researchers generated an initial pool of 77 items that explained the 11 sub-dimensions of service quality. Multiple measures for each of the sub-dimensions were developed and modified from the items of existing scales (e.g. Brady and Cronin, 2001; Crompton and MacKay., 1991; Howat et al., 1996; Kim and Kim, 1995; Parasuraman et al., 1988). Dimensions included programme quality, interaction quality, outcome quality and physical environment quality. Statistical tests supported the model and SSQRS is claimed to present a consolidated framework of service quality conceptualisations, and fills the gaps that exist in the conceptualisation of service quality in the recreational sport industry (Brady and Cronin, 2001). However, the major limitation is the generalisability of the scale as it has been tested on the sample of “sport participants within the Department of Recreational Sports at a large university located in the Midwest region in the US” and “a majority of the respondents were university students between the age of 18-22 (46%) and between the age of 23-30 (35%)” (p. 90). Ko and Pastore (2005) suggested carrying out further analysis of the items in different industry segments in order to establish reliability and validity of the scale. Also, the applicability of the conceptual framework in other sports industry segments is still to be tested (Polyakova and Mirza, 2016).

Some other studies (e.g. Lagrosen and Lagrosen, 2007; Moxham and Wiseman, 2009) used case studies to explore service quality, however, the nature of approach (15 and 1 case studies respectively) led to limitations of generalisability of their findings. The most recent study by Yildiz (2011) proposed Service Quality Scale for Fitness Centres (SQS-FC). The study employed a two-stage methodology that included qualitative convergent in-depth interviews and a quantitative scale application. The 25 items of the scale explaining four service quality dimensions - personnel; physical environment; supporting services; and programme - were obtained during qualitative stage and subsequent content analysis. The main limitation of the model is that the study was carried out using a limited sample in a private fitness club in Turkey. Yildiz (2011) mentions that the Turkish market is an emerging one (p.7033), therefore, it is questionable how the results of the study can be generalised to other fitness clubs in European or Asian markets, or to the clubs in other sectors (i.e. non-

profit). Also, the scale by Yildiz (2011) does not capitalise on the conceptualisations of previous scales in the fitness industry, e.g. it does not consider outcome quality and elements of interaction quality related to other members. Although the study makes a valuable contribution (application of IPA), its reliability and validity can be questioned (it uses a sample from a single private fitness club, has some contradictions with previous research in the scale, and it does not measure overall SERVICE QUALITY and valence). Overall, the items SQS-FC closely resemble SQAS by Lam et al. (2005), with the main difference lying in a breakdown of dimensions. However, the scale by Lam et al. (2005) is considerably sounder from the methodological perspective (i.e. being based on a literature review, field observations, interviews, modified application of the Delphi technique, a pilot study and exploratory factor analysis) (Polyakova and Mirza, 2016).

5.3 Dimensions of service quality models in the fitness industry

The service quality models in the fitness industry were conceptualised in different ways and their authors suggested various dimensions of service quality (see Table 3.3). However, some dimensions cannot be directly applied to measure perceived service quality from customers' perspectives (e.g. in Chang and Chelladurai (2003), Lagrosen and Lagrosen, (2007), and Moxham and Wiseman (2009)).

The dimensions that are most common across service quality models fall into six main groups, namely: Personnel; Physical environment; Social environment; Programme; Supporting services; Outcome (Appendix A). These dimensions include sub-dimensions that can be directly experienced and evaluated by customers. Several distinct elements of service quality existing in some models are absent in others (e.g. pleasant social environment; wide range of services; operating time etc.). On the other hand, some sub-dimensions appeared to exist in other models under different dimensions. For example, Kim and Kim's (1995) dimension of employee attitude exists within Chang and Chelladurai's (2003) Interpersonal Interactions with Employees, Alexandris et al.'s (2004) Interaction quality, Lam et al.'s (2005) Personnel, and Lagrosen and Lagrosen's (2007) relational competence.

The analysis showed that considerable attention across the models is paid to the sub-dimensions of Personnel, Physical environment and Social environment. Programme, Supporting services and Outcome have received less attention (Table 5.2). The studies which have considered Outcome as a dimension of service quality appeared to include 'softer' factors related directly to individuals' perceptions of the benefits they receive from the service and,

indirectly, to the role they play in the process. The qualitative study by Lagrosen and Lagrosen (2007) proposed three service quality dimensions (Physical change, Mental Change and Pleasure) linked to individuals' intrinsic characteristics. This is in line with the theory (e.g. Dabholkar, 1995) which suggests that the intrinsic characteristics of a population determine the nature of the service quality-satisfaction link. Also, Studies by Alexandris et al. (2004), Howat et al. (2008) and Lagrosen and Lagrosen (2007) advocated the inclusion of an outcome quality or benefits in the service quality model. It seems that the models which eliminate Outcome as a service quality dimension (e.g. Kim and Kim, 1995; Lam et al., 2005; Yildiz, 2011) tend to only include dimensions directly controllable by the organisation.

Table 5.2: Dimensions of service quality in various models

Dimensions	Authors
Personnel	Alexandris et al. (2004), Chang and Chelladurai (2003), Kim and Kim (1995), Ko and Pastore (2005), Lam et al. (2005), Yildiz (2011)
Physical environment	Alexandris et al. (2004), Kim and Kim (1995), Ko and Pastore (2005), Lagrosen and Lagrosen (2007), Lam et al. (2005), Yildiz (2011)
Social environment	Alexandris et al. (2004), Chang and Chelladurai (2003), Kim and Kim (1995), Ko and Pastore (2005), Lagrosen and Lagrosen (2007), Lam et al. (2005), Yildiz (2011)
Supporting services	Chang and Chelladurai (2003), Kim and Kim (1995), Ko and Pastore (2005), Lam et al. (2005)
Outcome	Alexandris et al. (2004), Chang and Chelladurai (2003), Ko and Pastore (2005), Lagrosen and Lagrosen (2007)

Source: Polyakova and Mirza (2016), p.371

However, the Personnel dimension, which is present in all models, has an inheritably less controllable nature due to inevitable interactions with customers. The customers do take part in the service and also become the co-creators; this results in either two-way or one-way communication that forms customers' perceptions of personnel. In connection with this, Liu and Hsu (2010) suggested that Staff is a high-importance-performance factor, which means that customer satisfaction increases linearly depending on performance of the factor. In addition to that, a study by Brown and Fry (2014) found that in a group-fitness setting staff behaviour may be an antecedent to members' exercise experiences by impacting their perceptions of the climate. Thus, members who perceived a higher caring, task-involving

climate and lower ego-involving climate were more likely to report more caring behaviour among the staff and themselves as well as greater commitment to exercise.

When addressing the questions that have arisen from the review of the existing service quality models, one should consider involvement of consumers in co-producing a fitness service as an essential characteristic of sport consumer behaviour. A broad range of studies (McDougall and Levesque, 1994; Rust and Oliver, 1994; Schneider and Bowen, 1995; Lovelock, 1996; Brady and Cronin, 2001; Alexandris et al., 2004; Ko and Pastore, 2004; Hu et al., 2009; Szabó, 2010) identified significant differences between sport and other service based organisations due to the patterns of sport consumer behaviour. For example, Tsitskari et al. (2014) and Vlachopoulos et al. (2008) suggested that exercise involvement can influence overall satisfaction with the service, i.e. more involved participants are more committed and satisfied. In case of the above two studies a Modified Involvement Scale (MIS) was used which included dimensions of social bonding, identity affirmation and identity expression. Such dimensions are unique to the type of activities in which fitness exercisers engage in a sports centre.

The need to develop industry specific service quality models has been recognised by a number of studies (Brady and Cronin, 2001; Ladhari, 2008; Martinez and Martinez, 2008, 2010). Indeed, insufficient attention to the specific context in which models have been developed can have implications for adaptations/modifications of the models for use in different contexts, i.e. inadequacy or limited explanation potential (Carrillat et al., 2007; Kaul, 2007; Keillor et al., 2004; Kim and Jin, 2002). Moreover, the social world and the historical meaning of that world serve as departure points for the consumers in forming the complexity of their views. In its turn, a precise consumption context leads to the emergence of salient meaning for the consumer in that context (Thompson, 1997). This forms a wider argument for the context consideration in specific industry as well as consideration of the unique characteristics of the industry (Polyakova and Mirza, 2015).

Vargo and Lusch (2008) argued for the move from 'good-dominant' towards 'service-dominant' logic; the latter is based on the notion of service co-creation between suppliers and customers. The process of co-creation produces a result which all participants aim to benefit from; this result is a combination of value proposition and value actualisation (Gummesson, 2007) (see Polyakova and Mirza, 2015). This view is supported by Maklan and Klaus (2011) who suggest that the customer's goal of the acquisition of a service is in fulfilment of deeper

emotional, sensory and hedonic aspirations, and the extent of this fulfilment forms the ultimate value-in-use of the service.

Consumers' involvement in the co-creation and participation in exercise implies the existence of the reason or motive for this involvement. Roberts (1992) describes a motive as a drive, stimulus or reason why people do something. In the context of exercise, participation motives are regarded as reasons that individuals give for engaging in physical activity: the terms 'participation motives' and 'reasons for exercising' are suggested to be interchangeable (Markland and Ingledew, 2007). Different factors influence motives for participation in sport and fitness exercise, e.g. gender (Biddle and Bailey, 1985; Mullen and Whaley, 2010); age (Kremer et al., 1997); experience (Ryan et al., 1997); and type of sports centre (Afthinos et al., 2005). Beside the fact that motives vary greatly from individual to individual, people can have more than one motive for participating in a fitness activity; these motives can also come either from within the person (intrinsic motives) or from the outside (extrinsic motives) (Thatcher et al., 2009). For example, Motschieder (2015) suggested that usage of fitness suites is associated with socialising "exercising fleshy bodies" (p. 84) and creating perceived 'individualised' space during a workout session.

In the area of general service quality research, Zeithaml and Bitner (2003) suggested that psychological factors such as individuals' motivations and self-competence influence customers' perceptions of service and their satisfaction. In sport-related industries, the results of studies showed that motivation influences participation levels in recreational sports (Tsorbatzoudis et al., 2006). Considering customers' motivation for obtaining the potential benefits from a service, Lagrosen and Lagrosen (2007) identified factors of physical change, mental change and pleasure as service quality dimensions in the health and fitness industry. In contrast, the study by Afthinos et al. (2005) suggested that motivation is not important in determining customers' desires for services provided by fitness centres. However, Afthinos et al. (2005) did not investigate whether motivations influence assessment of the perceived importance of desired service aspects.

Studies by Arnould and Price (1993), Kupers (1998) and Schembri and Sandberg (2011) confirmed that consumers actively co-construct the quality of their service experience. Nevertheless, in the current format, existing service quality models do not allow for the potential of going beyond the set of their fixed dimensions. This contradicts the 'service-dominant' logic as well as value/quality co-creation process. Also, the dimensional structure of service quality preserves the models in their current state and creates a rationale for

neglecting the experiential meaning of service quality (Schembri and Sandberg, 2011) (see Polyakova and Mirza, 2015).

5.4 Frequency of participation

5.4.1 Frequency participation in relation to physical activity and fitness services

Historically, the frequency and duration of customers use of a particular service have been linked to the concept of repeat buying (Bodet, 2008) and have been described as an action behaviour that serves as one of the indicators of behavioural loyalty (Dick and Basu, 1994). In the context of the sport and fitness industry specifically Ferrand et al. (2010) defined frequency of attendance as "the average number of visits a customer makes to the (fitness) club each week" (p.90). Although Ferrand et al. (2010) supported the view that frequent visitation does indeed represent a form of behavioural loyalty, their study suggested that the impact of frequency on intention to repurchase a service requires further empirical evidence.

In similar lines with Ferrand et al. (2010), Bodet (2012) argued that the frequency and duration of participation can influence customers' satisfaction with the service provided by a health and fitness club. Yet, results of their study showed that a high frequency of consumption or participation cannot be considered a reliable indicator of high commitment as some customers can still be loyal despite attending only once a week. One potential explanation that Bodet (2012) draws on lies in Seippel's (2006) empirical findings regarding seven meanings that people assign to their participation in sport, namely joy/fun; keep fit; mental recreation; social factors; achievements/competition; expressivity; body/appearance. Indeed, prevalence of a particular meaning could form an attitudinal commitment that may not be expressed to the same level through one's behaviour. Although Seippel's (2006) findings were related to the Scandinavian voluntary sport sector and may not be representative of customers within the UK fitness industry, they are aligned with other studies (e.g. Rundle-Thiele 2005; Walsh et al., 2008) which proposed observing loyalty as a combination of attitudinal and behavioural loyalty.

Recent studies in the sport and exercise context (e.g. Verplanken and Melkevik 2008; Jekauc et al. 2015) have emphasised the importance of acknowledging participation frequency for better understanding of habitual behaviour and predicting future attendance. However, theories used to explain physical activity behaviour, namely theory of planned behaviour (Ajzen, 1991); social cognitive theory (Bandura, 2004); health action process approach

(Schwarzer, 2001); and physical activity maintenance theory (Nigg et al., 2008), do not take into account the repetitive nature of behaviour associated with physical activity participation and in particular in general fitness exercises. Yet, over the last decade, the UK health authorities such as the National Institute for Health and Care Excellence (NICE) have increasingly focused their attention on behaviour change and encouraging physical activity (National Institute for Health and Care Excellence, 2015). This is reflected in the national recommended levels of physical activity (Department of Health, UK, 2011) which are expressed in terms of duration, intensity and frequency of activity for different demographical groups.

From a psychological point of view, frequency and repetition of physical activity play an important role in the maintenance of a healthy lifestyle and contribute to the formation of desirable habits. However, some authors (e.g. Verplanken and Melkevik, 2008) argue that it is incorrect to use terms of frequency and habit interchangeably in the case of physical exercise because behavioural frequency represents the 'density' of behaviour whereas habit represents how behaviour is executed. Thus, in the case of NICE guidance, the purpose of using terms of frequency is to maximise the possibility of obtaining measurable positive health effects; yet this does not guarantee lasting behavioural change impact unless it is an automated and embedded part of one's everyday activities.

Alongside growing government emphasis on the impact physical activity has on people's lives and their welfare (e.g. NHS social prescribing pilot in Rotherham), prediction of future attendance levels is important for the fitness sector organisations as it relates to their strategic marketing planning and operational management. In the case of Jekauc et al.'s (2015) study, which looked at two groups of fitness activity participants - regular attenders and intermittent exercisers - Social Cognitive Theory (Bandura, 2004) had the greatest predictive power compared to the Theory of Planned Behaviour (Ajzen, 1991), Social Cognitive Theory (Bandura, 2004) and Physical Activity Maintenance Theory (Nigg et al., 2008). Yet, it was suggested that all three theories require extension as well as consideration of the past behaviour and affective determinants (i.e. feelings).

5.4.2 Factors influencing frequency of participation in fitness services

There are a number of factors which can influence frequency of attendance at fitness clubs. For example, the evidence was found that individuals respond to stress differently depending on how long they have been exercising; the newcomers usually experience more difficulties

in maintaining exercise, while long-time exercisers respond to stress with greater exercise participation (Clark et al., 2011). Jekauc et al. (2015) suggested that a regular participation pattern was associated with a positive attitude toward attending the fitness centre and higher perceived behavioural control whereas intermittent exercisers perceived more barriers to their attendance. Also, their study showed that there is higher probability of participants with high levels of life stress to belong to the group of intermittent exercisers. Another study by Hooker et al. (2016) revealed that individuals who were unhealthy visited the fitness centre less frequently than healthy members.

Garon et al. (2015) found that overestimation of self-control leads individuals to fail maintaining control over their initial decision towards exercising and healthy lifestyle. This loss of self-control can subsequently cause frustrations and negative emotions in individuals towards themselves. The role of psychological state and in particular emotions experienced by customers has been explored by Pedragosa et al. (2015) who found that negative emotions impacted customers' overall satisfaction with a fitness centre negatively, while positive emotion had a positive effect on their overall satisfaction. The fact that overall satisfaction can have a positive impact on frequency of attendance (Ferrand et al., 2010) indicates that the type of customers' emotions (i.e. negative or positive) may influence their attendance frequency pattern.

A study by Hill and Green (2012) provided evidence that programme attractiveness, social opportunities, loyalty and sportscape factors (e.g. parking, cleanliness) can affect participation frequency in a sports facility, however, this effect takes place at different stages of the decision making process. Results of the study showed that programme attractiveness has a continuous impact on participation frequency whereas the effects of social opportunities, loyalty and sportscape factors are enacted after customers' attendance at the facility. It has been found that the sportscape has the most impact on participation frequency at fitness facilities, and minimal impact on participation at multisport facilities. Furthermore, in fitness facilities, the relationship between social opportunities and frequency of attendance was negative which meant that "consumers who saw few social opportunities participated most" (Hill and Green 2012, p. 496). This evidence supported argument by Stebbins (2007) who argued that more regular users of facilities engage in serious leisure (as opposed to casual leisure); they are more motivated and more satisfied with the benefits of their participation and do not require opportunities to socialise.

Overall, the literature supports that frequency of attendance at a fitness facility is a form of action behaviour related to the concept of behavioural loyalty (Ferrand et al., 2010; Walsh et al., 2008). The evidence shows that frequency can influence customers' evaluations of quality (Hill and Green, 2012) and their satisfaction with services (Ferrand et al., 2010; Pedragosa et al., 2015). A broad range of factors - from perceived barriers (Jekauc et al. 2015), strength of habit (Verplanken and Melkevik 2008) and stage of consumption (Avourdiadou and Theodorakis 2014) to the type of facility and sector (Hill and Green 2012) - can influence the frequency of customers' attendance simultaneously and in different directions.

5.5 Summary

The evolution of the perceived service quality concept encompasses a pathway from its emergence to the research models' development. Over the past 25 years researchers have proposed a multitude of service quality models. Some studies have focused on general models (e.g. Cronin and Taylor, 1992; Grönroos, 1988; Parasuraman, Zeithaml and Berry, 1988); others have developed/revised models for particular industries (Aldlaigan and Buttle, 2002; Ko and Pastore, 2004; Lam and Zhang, 1999; Martinez and Martinez, 2007). The model by Brady and Cronin (2001) has been revealed to have superiority with respect to earlier models; however, there are conceptual and methodological contradictions that have not been addressed (Polyakova and Mirza, 2015).

Analysis of a series of studies (Carrillat, Jaramillo and Mulki, 2007; Gummesson, 2007; Kaul, 2007; Keillor, Hult and Kandemir, 2004; Kim and Jin, 2002; Martinez and Martinez, 2010; Morales and Ladhari, 2011; Schembri and Sandberg, 2011) indicates that there are a number of issues with the existing models. Among these issues are uncertainty of philosophical stance; lack of consideration of context; and 'legitimisation' of valence as a service quality sub-dimension (Polyakova and Mirza, 2015). However, Robinson (2004) argued that although it is difficult for leisure facility managers to directly influence the factors outside of their control, it is possible for them to exercise an indirect influence on smaller related factors and manage perceived risk. Alongside this some authors (Gummesson, 2007; Vargo and Lusch, 2008) have made suggestions to consider services as a combination of value proposition and value actualisation; instead of treating them as entities described with service characteristics – intangibility; inseparability; heterogeneity; perishability. There is evidence that these service characteristics have considerable limitations, such as restricting replacement of static view on service quality by a more dynamic approach. The latter is in line with several studies (Arnould and Price, 1993; Kupers, 1998; Schembri and Sandberg, 2011) which confirmed

that consumers actively co-construct the quality of service they experience (Polyakova and Mirza, 2015). The issue of multidimensionality in service quality models has been brought up by Martinez and Martinez (2010) with a subsequent suggestion of different options for researching service quality.

There is a range of approaches to investigating and measuring service quality in the sport and fitness industry. Brady and Cronin's model (2001) has been utilised in several studies of service quality in fitness (e.g. Alexandris et al., 2004; Ko and Pastore, 2005). The model was recommended by Martinez and Martinez (2010), however, it has contradictions that have not been addressed (such as direction of influence between levels of quality). To overcome these issues, Martinez and Martinez (2010) suggested using Brady and Cronin's (2001) model alongside the identification of the dimensions of service quality in the context of a particular industry. The SQAS model developed by Lam et al. (2005) specifically addresses the health-fitness setting and presents a strong basis (from a methodological point of view) for measuring perceived service quality. Yet, Lam et al. (2005) recommended other researchers re-examine the SQAS using different samples to further study factor structure and potentially to compare with another similar scale. Moreover, the scale does not offer the measurement of overall perceived service quality and does not include the outcome quality proposed by several other service quality models.

A number of studies (e.g. Brady and Cronin, 2001; Ladhari, 2008; Martinez and Martinez, 2008, 2010) suggested development of industry-specific models as they could be more adequate for the context of a particular industry. There are also examples of enriching generic service quality models with attributes specific to the fitness industry (e.g. Alexandris et al., 2004; Ko and Pastore, 2005). Still, both generic and industry-specific models currently have various types of limitations, some of methodological character, other are of a more conceptual nature. Also, several recommendations for overcoming limitations of the fitness service quality models (Polyakova *et al.*, 2012) were proposed.

The concept of customer satisfaction is closely related to perceived service quality. The field of psychology has suggested two aspects for consideration in understanding the phenomenon - cognitive and affective satisfaction. The debate on what comes first in the formation of satisfaction – rational judgements or emotions – found common ground in the presence of emotions in both arguments. There is evidence to suggest that the influence of an emotional component on satisfaction is stronger than the influence of cognitive evaluation (disconfirmation) (Martinez and Martinez, 2007). However, in order to explore the

prerequisites of satisfaction in the service context, the role of expectations and perceived quality should be considered further.

Along with intrinsic cognitive and affective aspects, situational factors (e.g. budget constraints; interactions; waiting time; moods; valence) can contribute to the formation of consumer motives, behaviour and satisfaction. Depending on the context (e.g. length of time) in which satisfaction is formed, two generic perspectives can be utilised: transaction-specific and cumulative satisfaction. Transaction-specific satisfaction emerges from a particular purchase/experience of a product or service encounter. On the other hand, cumulative satisfaction is relevant when it represents overall evaluation based on the total purchase and consumption experience over time. As customer satisfaction is a multi-faceted concept, it was suggested that each study should develop its own context-specific definition of satisfaction (Giese and Cote, 2002) reflecting on the following criteria: a) summary affective response which varies in intensity; b) satisfaction focus around product choice, purchase and consumption; and c) time of determination which varies by situation, but is generally limited in duration.

Due to the complexity of customer satisfaction phenomenon the body of literature has not been explicit about cause-and-effect relationships between satisfaction and perceived quality. This complexity resulted in two views: first, perceived quality being viewed as the antecedent of satisfaction and, secondly, satisfaction - as an antecedent of perceived quality. Yet, it has been suggested that these two views do not exclude each other and each of them can be adapted depending on the client's propensity to be relational or transactional: nature of services: strength of corporate image: and stage in the client/company relationship (Bahia et al., 2000).

Finally, two theories – theory of equity and theory of attribution – present an explanatory tool for understanding the process of the formation of customer satisfaction in the industries where customers are highly involved in the co-creation of service. There is some evidence that customers' satisfaction with their own performance can influence their overall satisfaction with the service company (Griseemann and Stokburger-Sauer, 2012). It still remains unclear to what extent co-creation is beneficial for generating customer satisfaction across service industries.

CHAPTER SIX – THE CONTEXT OF THE FITNESS INDUSTRY IN ENGLAND

6.1 Introduction

The aim of this chapter is to provide an insight into the fitness industry in the UK and particularly in England. Section 6.2 describes and defines fitness organisations for operational use in the context of this study. Section 6.3 identifies the main milestones in the evolution of the health and fitness industry in the UK. Section 6.4 gives a brief overview of regulations, governing bodies and employer associations in the industry, and Section 6.5 sets out differences between private and public fitness sectors. This is followed by Section 6.6 which provides a detailed description of sector profiles for the fitness industry in England. This includes statistics on the sizes and regional spread of private and public centres across England, types of access to fitness clubs, size of membership base and population of fitness clubs. Market and customer consumption trends are covered in Sections 6.7 and 6.8 which allows for understanding of the environment surrounding the providers of fitness services and shapes the behaviour of their customers. Finally, Section 6.9 is dedicated to the specific context of fitness classes and fitness suites which this study has a particular focus on.

6.2 The definition of a fitness organisation

According to Sport England (2002) the term ‘health and fitness club’ covers a wide range of facilities: from the small free weights-based gym to very large multi-national operators providing 25m pools, hundreds of exercise stations, exercise studios and social facilities aimed at the whole family. The core elements within the scope of the health and fitness sector are summarised in the Table 6.1.

Smaller gyms are usually operated in converted factories, warehouses, shops and houses. The bigger clubs take larger sites with car parking provision. Those larger clubs provide 20 or 25m indoor swimming pools with associated spa facilities (sauna, steam room and whirlpool). Gym facilities will generally consist of cardiovascular and aerobic machine stations, computerised weights machines, free weights apparatus, aerobics/dance studios, spinning bikes and other related equipment. The cardiovascular equipment is often computer-controlled, where each member is provided with a card or key which holds information on the individual, allowing them to adjust settings on the relevant machines according to their individual requirements.

Table 6.1: Aspects of fitness industry

Industry element	Description
Target market	Individuals (both males and females) of all age groups concerned with their health/outlook or/and healthy lifestyle
Key services	Wide range of facilities (depending on the size and type of fitness club): swimming pool, weight rooms, exercise stations, exercise studios, spa area, social facilities
Key capabilities	Brand name, location, service quality, targeting customer groups
Key competitors	Top commercial chain operators: David Lloyd, Virgin Active Group, Fitness First, DW Sports Fitness, LA Fitness, Bannatyne Fitness, Nuffield

All centres will have changing/shower facilities, bar/social facilities, childcare facilities and many will have beauty and hair salons. Entry to the centres can also be card-controlled; easing access for members and providing valuable user information for the operators. Most health and fitness centres, certainly the national operators, will be open from approximately 7am to 10-11pm. The busiest period is normally the evening post-work i.e., pre-home time around 5 to 7pm, although pre-work sessions at the start of the day are also popular.

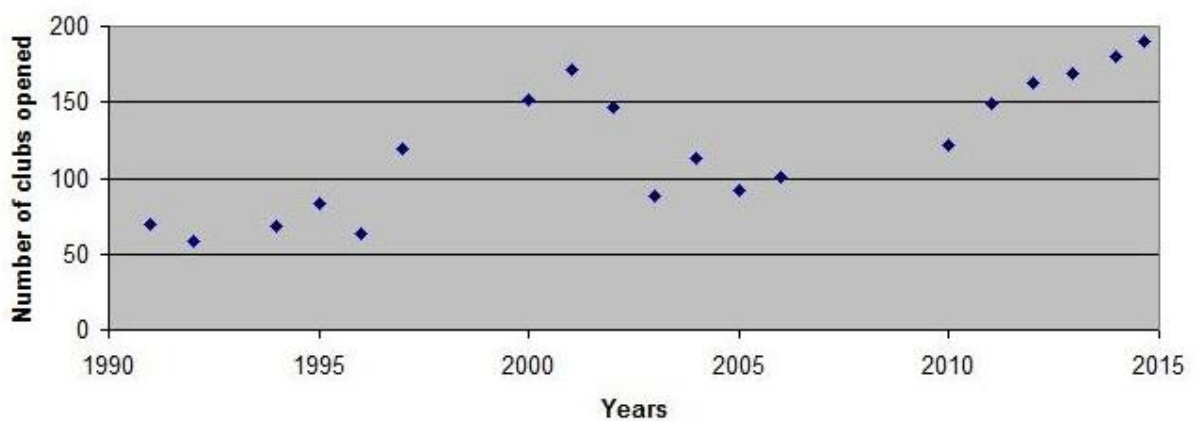
6.3 Evolution of health and fitness industry in the UK

Gyms were the predecessors of modern private fitness clubs and were originated mainly for the purpose of bodybuilding. The late 1970s - early 1980s have seen a shift from gyms to the new era of the fitness industry. This shift meant the repositioning of former bodybuilding oriented industry to the health and fitness. Three industry pioneers – David Lloyds, Holmes Place and Cannons – launched their first stand-alone clubs. After moderate growth of the fitness industry during the 1980s, a general 'boom' period of high economic growth and rising inflation, the UK entered a recession in 1991. However, the industry continued to grow and despite the 1991 recession 70 new clubs opened (Figure 6.1). Prior to this, in 1990, the industry had strengthened through establishment of the Fitness Industry Association (FIA), which aimed to act as the trade body for the UK health and physical activity sector.

With a transition to the new decade of 1990s, UK society started to experience great media influence through the delivery of the message of 'active living' (Skok et al., 2001). Simultaneously, the launch of the first cardiovascular equipment line by Italian company Technogym raised public interest and broadened market demand. In 1992, Fitness First opened its first club in Bournemouth offering affordable fitness with membership at £29 per month. For the first time the public began to consider fitness club membership not as a

luxury, but as a necessity of a healthy daily lifestyle. Brands such as Esporta (1994), Bannatyne’s Health Clubs (1996), and Virgin Active (1999) were introduced to the industry in the 1990s. This stage of fitness industry development is referred to as ‘frenetic’ growth. In addition, fitness clubs chains already established started to change ownership. Thus, Whitbread PLC acquired 16 David Lloyd health clubs in 1995, Stakis PLC acquired LivingWell clubs in 1996, and Ladbroke Group PLC acquired Livingwell in 1999. One of the most noticeable 1990s acquisitions occurred in 1999 when Cannons Group PLC bought out the privately owned Pinnacle club group and became the UK and Europe’s largest quoted ‘pure’ fitness operator.

Figure 6.1: Openings of fitness clubs, 1990-2015



The decade of the 2000s was characterised by increased government focus on the health of the nation. In line with continuing acquisitions and the launching of new brands, the fitness industry went through a period of ‘shake out’. A series of club chains (Lady in Leisure, Hunters Leisure PLC, Reebok Club, Topnotch) entered administration in 2001-2003, which assisted the consolidation of other major brands.

The start of the recession in 2008 brought tough times to the industry; however, it continued its growth albeit at a slower pace. Other factors, such as a change in societal attitudes and financial pressures on people’s spending, provided a new opportunity for innovation into the market: in 2006 FitSpace launched the UK’s first low-cost (or budget) health club with a monthly membership of £11.66. In 2010 the major event on the market for chain clubs was the Total Fitness Group going into administration, however, it was subsequently bought and taken out of administration under a new company name, Total Fitness 2010 Limited.

The decade of the 2010s started with consequences from the recent recession. There was a gradual decrease in the overall number of fitness facilities from 2010 to 2012. However, market value has increased since the recession's start. Also, according to FIA statistics, there has been a stable and gradual increase in the number of clubs opening from 2010 to 2017 - from 122 to 272 new clubs opening respectively. Among the factors that helped the market to grow are growing levels of obesity (Baker, 2017) and a greater focus on body image. The emergence of budget fitness clubs and the continued drive to publicise the benefits of exercise changed people's perceptions of health and fitness from a luxury to an affordable part of their healthy lives. Others looked at fitness as social and leisure time. Generally, customers started to become more demanding with regard to both the range of fitness facilities available and programmes offered as well as their suitability to their lifestyle. These demands required novelty force fitness clubs to implement innovative strategies: from full automation by integrating latest hi-tech features and controls to full guidance of professional personal trainers-mentors; from complex combination of 'out-of-routine' aerobic programmes to re-introducing the simplicity of natural and holistic approaches to exercise.

6.4 Regulations in the industry

Oakley and Rhys (2008) in response to development in regulations in the industry stated that "*...this is due partly to devolution and partly to the tradition of letting sport govern itself; this has resulted in a number of organisations claiming to be in charge of their own areas*" (p. 43). Currently, the fitness industry has two main types of relevant regulations: one is government legislation and one is industry-specific requirements set by trade associations and voluntary organisations. Organisations involved into both types are covered further in this section. However, it should be noted that there is no single lead organisation in control.

6.4.1 Legislation and governing bodies

Legislation relevant to health and fitness industry covers general aspects of health and safety in the workplace and disabled access. However, government legislation plays an important role in the public leisure centres sector in particular. Table 6.2 shows the key legislation relevant to the provision of public sport.

Two departments — the Department of Health and the Department for Culture, Media and Sport (DCMS) – play a main role in setting legislation in the health and fitness industry. Both departments are responsible for improving public health and well-being. DCMS administrate

the National Lottery, including its Lottery Sports Fund (LSF) and provides national funding for sport. However, implementation of funding is delegated nationally and regionally. England, Scotland, Wales and Northern Ireland each have their own sports councils (e.g. in England - Sport England) that bring together central government funding with sports officials and local government (Wiggin, 2010).

Table 6.2: Legislation related to the provision of public sport

Act	Purpose
Public Health Act (1936)	Authority to provide public baths and wash-houses, swimming baths and bathing places and the authority to close them to the public for use by schools or clubs and to charge admission
Physical training and recreation Act (1937)	Encouraged a movement towards national fitness. Local authorities could acquire land for facilities and clubs
Town and Country Planning Acts (1947, 1971, 1974)	Made it possible for local authorities to define the sites of proposed public buildings, pleasure grounds, open spaces and nature reserves
Education Acts(1918, 1944)	Allowed and then made it mandatory for schools to provide adequate facilities for recreation, social and physical training
Local Government (miscellaneous provisions) Act (1976)	Permitted local authorities to provide such recreational activities as they think fit
Local Government Act (1988)	Introduced compulsory competitive tendering into the management of sport and leisure facilities
Local Government Act (1999)	Introduced the duty of Best Value into the management of public and leisure services
Local Government Act (2000)	Authority for Councils to secure the economic, social and environmental well-being of their residents

Source: adapted from Robinson (2004)

Sport England is the name for the English Sports Council and is a governmental agency under the DCMS. Along with the relevant local authorities' departments, Sport England is responsible for delivery of sports funding through nine regional offices. It has published performance indicators that guide local authorities on the quality of their service.

6.4.2 Employer associations

There is a range of employer associations which play their own role within the fitness sector in the UK. Table 6.3 lists the main organisations in chronological order.

Established in 1990, the Fitness Industry Association (FIA) is a non-profit trade organisation for the health and fitness sector with the aim of representing industry at different levels and influence government policy. It runs campaigns, events and educational programmes. It also works to develop new initiatives to raise standards in the industry and promote best practice and high levels of customer care (e.g. Code of Practice and Code of Ethics and Health Commitment Statement for new gym members) (ukactive, 2017). Members of the FIA comprise of clubs and organisations from both the private and public sectors. The State of the UK Fitness Industry Report is an annual report produced on the basis of research by the FIA in order to assist decision-making. In 2012, FIA was branded to ukactive, in order to deliver its vision to get more people, more active, more often.

Table 6.3: Employer associations in fitness and active leisure sector

Association	Year established
Sports Coach UK	1983
Fitness Industry Association/ukactive	1990
Sports and Recreation Trust Association	1997
Register of Exercise Professionals	2002
Association for Physical Education (afPE)	2006
SkillsActive	2008
The Chartered Institute for the Management of Sport and Physical Activity	2011

The FIA works closely with the Register of Exercise Professionals (REPs). Internationally, the FIA is part of the European division of the US-based International Health, Racquet and Sportsclub Association (IHRSA) and a member of the separate European Health and Fitness Association, based in Brussels (Wiggin, 2010).

Although there is still no statutory requirement for fitness instructors to have a qualification, in 2002 a Register of Exercise Professionals was introduced supported by the FIA, the National Training Organisation SPRITO and a number of leading private sector training providers (Lloyd, 2007). REPs is a system of self-regulation with the aim of ensuring standards of training and qualification for the exercise and fitness industry and until 2017 it has been owned by SkillsActive (the Sector Skills Council for Active Leisure and Wellbeing); then from 2017 - by Sports Coach UK. REPs is a voluntary organisation with the aim of becoming a standard for qualifications in the sector. The main objectives of REPs are to provide clarification and recognition of qualifications that meet agreed national standards

available in the fitness industry and provide confidence in the quality of services provided by fitness professionals (REPs, 2017).

The Sports and Recreation Trust Association (SpoRTA) was established in 1997 and it currently represents non-profitmaking organisations (trusts) that manage cultural and leisure facilities on behalf of local authorities. Administration is divided into six UK regions involving more than 870 sites. The Leisure Management Contractors Association (LMCA) represents trading limited companies - seven companies operating leisure facilities on behalf of local authorities and private companies. The members are: Avalon Leisure; Cannons Leisure Management; CLS (Community Leisure Services); DC Leisure Management, Leisure Connection; Serco; and Sports and Leisure Management.

Other organisations within the health and fitness industry include the Association for Physical Education (afPE) and the Chartered Institute for the Management of Sport and Physical Activity. Also, Skills Active Group is licensed by The UK Commission for Employment and Skills (UKCES) to raise skill levels among UK employers. It comprises of two organisations: 1) SkillsActive, and 2) the National Skills Academy for Sport and Active Leisure (England only). SkillsActive is part of an alliance of the Sector Skills Council (SCC) set up in 2008. Each of the councils is an 'independent, employer-led, UK-wide organisation' with a licence from the Government to 'build a skills system that employers want'. The SCC system was relicensed in autumn 2009 for a further 5 years, although the Government's plans to curtail public spending may still affect these organisations (Wiggin, 2010).

6.5 Current fitness market segmentation

Broadly speaking, the health and fitness club market can be divided according to ownership in the private sector providers (health clubs) and the public sector (leisure centres) providers. These two types of clubs are explained further in the Sections 6.5.1 and 6.5.2.

6.5.1 Private sector

The private sector comprises of privately owned and profit making businesses - health clubs. The Leisure Database Company (2012) defines private health clubs as commercially owned sites with a health and fitness facility that is available to members of the general public on a pay and play or membership basis. Some clubs within this group may belong to employers or hotel groups. Depending on the site size, health and fitness clubs offer swimming, sports activities, beauty treatments, catering and social programmes. The majority of its revenues

come from the annual membership fees, however, luxury clubs usually charge an initial joining fee (Wiggin, 2010). Oakley and Rhys (2008) distinguish the following ownership structure in the private sector:

- Stock listed operators (JJB Health Clubs, Whitbread Group – before 2007)
- Private equity owned clubs (Fitness First, LA Fitness, Total Fitness, Cannons)
- Private companies (Alternative Hotel Group, Greens Health and Fitness Clubs, Virgin Group)

Stock listed operators are a small numbers of operators who are publicly listed on the stock exchange; members of the public can buy a share of the business. In contrast, a number of operators have private investors (often investment companies) and, therefore, are called private equity owned clubs. Since 2000 the expansion provided by capital private investors has helped to speed consolidation of the industry and its growth phase (Oakley and Rhys, 2008). These private investors supply investment capital in return for a proportion of the business and annual returns on their investment in excess of 20 per cent. In turn, private companies are large companies who own a portfolio of businesses including health club chains.

It is also important to mention the division of the health and fitness sector into independent single-site operators and multi-site operators. The latter are generally the more successful as they attract more members, charge higher membership fees and therefore generate more income. The recent trends suggest that the market is getting tougher for single-site operators and this market situation causes the largest number of club closures in this segment.

6.5.2 Public sector

Another segment - public leisure centres - consists of properties owned by local authorities (councils). Councils may manage these properties themselves or subcontract them to the private sector. In order to be considered as a leisure centre, the property must possess a large sports hall offering several activities. It is also common that a leisure centre has smaller spaces for other sports (e.g. squash courts, fitness rooms and dance studios). Leisure centres are non-profit organisations and their aim is to maximise the opportunities for healthy recreation and sport for local residents.

For the purpose of this research it is important to clarify what is meant by public fitness centres. The review of fitness industry reports has shown that neither clear definition nor

consistent numerical data is available regarding this term. A general definition used in Mintel (2011b) with regards to public leisure centres and swimming pools suggests that they are local authority-owned leisure centres and swimming pools, including facilities run on a 'dual use' basis (e.g. facilities housed within schools) that are available for use by the public at certain times of the day or week.

In the public sector, the provision of health and fitness is delivered through local authority owned leisure centres operated under different management models, such as direct service organisations (a local authority in-house management), charitable trusts, privately owned leisure management contractors and education (linked to schools or universities). In light of increasing competition from the private sector, public sector managers started placing more focus on quality management strategies in order to bring the services to the standard of the fitness clubs in commercial sector (Robinson, 2004).

Sport England (2011) distinguishes education as the third significant sector in the fitness clubs industry. This sector includes the following providers: Further Education: Academies: City Technology Colleges; Voluntary Aided Schools; Community Schools; Community Special Schools; Higher Education Institutions; Foundation Schools; Non-Maintained Special Schools; Other Independent Special Schools; Voluntary Controlled Schools; Independent Schools approved for SEN Pupils; Other Independent Schools; EY Settings.

Nowadays due to the growing number of inter-sector partnerships and collaboration, it becomes more difficult to simply define the scope of the particular segment in the health and fitness industry. For the purpose of the current research it has been decided to define public fitness clubs as local authority-owned sports centres with a fitness/gym facility (the main characteristics of fitness organisations are described in the Section 6.2 of this Chapter).

6.6 Sector profiles of the fitness industry in England

6.6.1 Size of sectors

Marketing and research organisations divide the fitness clubs market in various ways using different numbers of sectors and, included in these sectors, different providers. To date there is no single reliable data source relating to the number of fitness clubs in a particular sector in England. Table 6.4 shows numbers of private and public sport and fitness centres from different sources.

Table 6.4: Public and private fitness facilities in the UK

Year	Private	Public	Private and public sports centres	Source
2010	3,176	2,724	5,900	Leisure Database Company, 2012
2017	n/a	n/a	6,728	LeisureDB, 2017

The table above does not disclose the number of public sports centres with a fitness facility but only overall numbers of public sports centres, which means that the total number of private fitness clubs and public sports centres with a fitness facility will be different. However, according to FIA (2011) the total number of public sports centres with a fitness facility is 2,686 out of the total 3,979 UK Public Sector sports centres. From here it can be calculated that in 2010 there were $(5,885 - 2,686) = 3,199$ private fitness facilities in the UK.

The report by Sport England (Active Places data, January 2011) reflects on the numbers of health and fitness facilities within England in particular. The report includes information on sports facilities from health and fitness facilities to ski slopes. It includes facilities owned and managed by the public, commercial and educational sectors (Table 6.5).

Table 6.5: Fitness facilities in England (within different sectors)

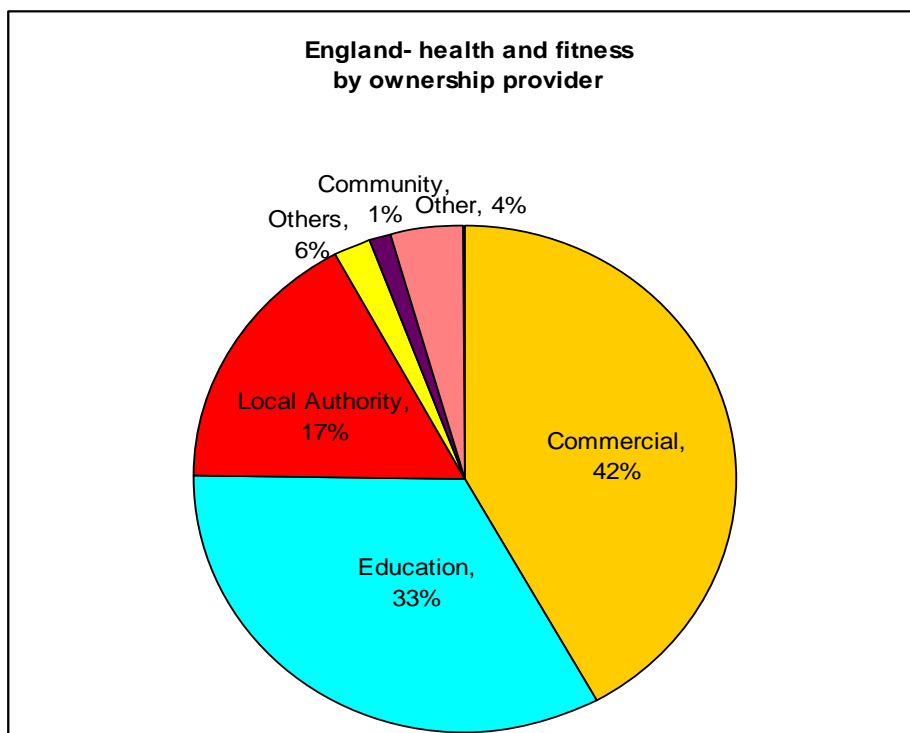
Private	Public	Education	Other	Total
2,700	1,099	2,144	503	6,446

From the tables above it is clear that numbers in the private sector are relatively consistent according to all sources (UK – 2,676 (Mintel, 2011a), 3,199 (2010); England – 2,700 (Sport England, 2011)). However, numbers in the public sector vary considerably (UK - 4,044 (Mintel, 2011b), 2,686 (FIA, 2011); England - 1,099). The reason behind this is, for example, Mintel (2011b) provides overall numbers for public sports centres in the UK without specifying the number of public sports centres with a fitness facility. However, the number of public sports centres with a fitness facility in the UK (n=2,686; 2010) includes the number in England (n=1,099; 2011) and possibly allows for variation due to the separation of the education sector by Sport England (2011).

Figure 6.2 shows the relative size of the fitness clubs sectors within the whole industry. The commercial sector is the largest sector (42%) in the English fitness industry. The second

largest sector is the educational one; its number of facilities comprises one third of the industry (33%). Publicly owned facilities come in as the third largest sector (17%). Thus, together commercial and publicly owned facilities (local authority) account to 59% of all sites in the fitness industry. The sector named “Others” includes Health Authorities; Community Organisations; Government; Industry (for employees); Sports Clubs and ‘others; and unknowns with a 10% share.

Figure 6.2: The fitness industry in England, number of facilities (%)



Source: Sport England, 2011

6.6.2 Regional spread within England

The distribution of fitness centres across England (Sport England, 2011) is presented in Table 6.6. The South East has the largest total number of private and public fitness centres across English regions as well as the largest number of private fitness centres (610 and 449 respectively). Overall the North West region has the greatest number of public fitness centres in England. North East is the region with the smallest number of both private (147) and public (93) fitness centres.

Table 6.6: Regional spread of fitness centres within England

Region	Private, sites	Private, % total	Public, sites	Public, % total	Total Private and Public, sites	Total, sites
South East	449	43	161	15	610	1043
London	381	41	152	16	533	929
North West	396	44	171	19	567	907
East	272	40	104	15	376	677
South West	298	43	104	15	402	695
West Midlands	266	41	107	16	373	651
Yorkshire and the H.	288	44	102	16	394	649
East Midlands	203	39	105	20	308	518
North East	147	39	93	25	240	377
Total	2,700		1,099		3,799	6,446

6.6.3 Access to fitness centres

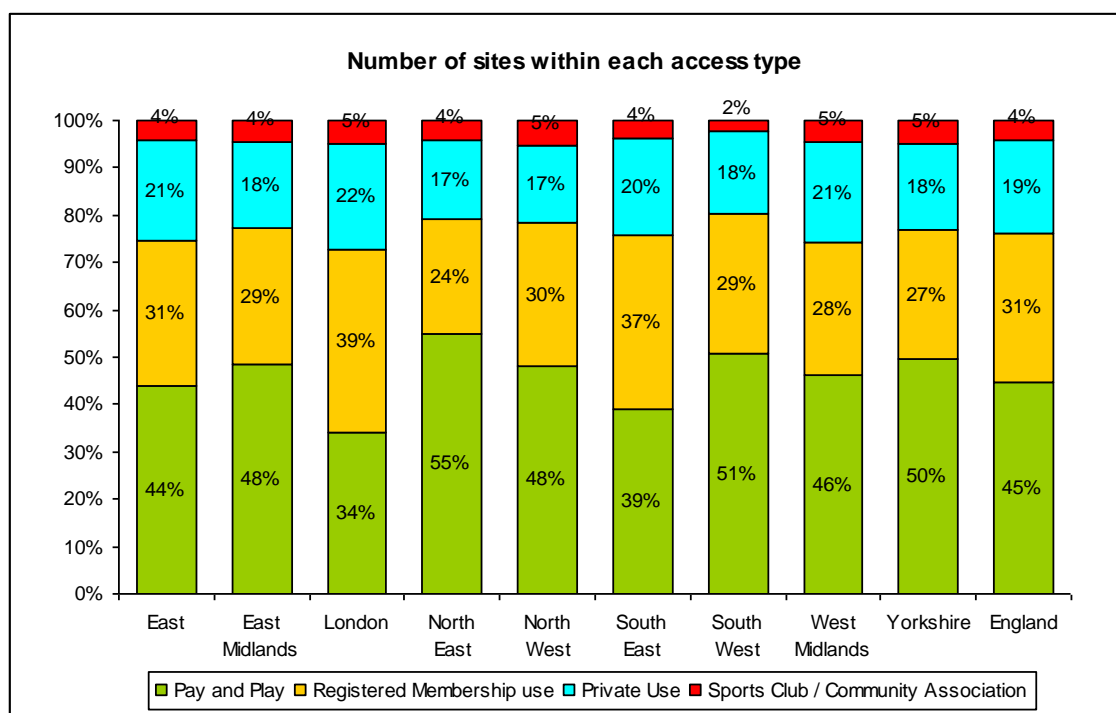
The most popular type of access offered by fitness centres in particular in the commercial sector is membership access. Members usually pay a joining fee as well as a monthly or annual subscription. Membership is controlled by the owner or manager of the facility.

There are also other access types such as Pay and Play, Sports Club/Community Association Use and Private use (Sport England, 2011). In Pay and Play the main means of public access to the facility is on payment of a charge. The facility using Pay and Play access may also have a membership scheme; it may be possible to block book the facility for a specific activity or for lessons, but during public opening hours anyone can just turn up, pay and play.

Sports Club or Community Association Use means that public access to the facility is via sports clubs or a community association, who book the facility for use by their members. Membership of the club or association is based on a particular sport or community group and the club or association may use several different facilities.

With private use access it is not possible to use the facility for the public, except when playing against the owner of the site. However, it may be available for use by elite clubs or development squads. This includes school facilities that are for school use only, and are not available to the local community. Figure 6.3 shows the proportion of facilities with different types of access across regions in England.

Figure 6.3: Access to fitness centres



Source: Sport England, 2011

The North East and South West regions, as well as Yorkshire and the Humber, have the biggest proportion of facilities with Pay and Play access (55%, 51% and 50% respectively). Almost all regions have the proportion of facilities with membership access around 30% apart from London (39%) and South East (37%). The North East shows the lowest percentage of facilities with membership access – 24%.

6.6.4 Membership base

According to the FIA (2011), 11.9 per cent of the UK population are now registered as members of a private health and fitness club or publicly-owned fitness facility. This accounts for approximately 7, 378, 000 people. Mintel (2011a) states that there are currently an estimated 5,330,000 million members of private health and fitness clubs in the UK, assuming that the membership base of publicly-owned fitness facilities in the UK accounts for 2,048,000 members.

Table 6.7: Membership base for public and private sectors

Sector	Private	Public	Total
Number of members	5, 330, 000	2,048,000	7, 378, 000

Table 6.7 shows that membership in the private sector is more than double that of the public sector despite FIA (2011) reporting a similar numbers of facilities (i.e. 3,199 private and 2,686 public facilities). These numbers show that the public sector has fewer members than the private sector; however, it does not mean that fewer people attend publicly owned facilities. One explanation of this fact is that visitors of public facilities can use fitness centres on the cheaper pay-as-you-go basis. . The membership numbers do not count for these visitors, therefore, lower membership numbers do not mean fewer numbers of visitors.

6.6.5 Population of fitness clubs

Over the last 20 years the health and fitness industry has grown rapidly and it is now entering a more mature stage (Oakley and Rhys, 2008). The business environment of the industry is still experiencing some changes because of increasing competition, more demanding customers and the continuous adaptation of health and fitness operators to the developing needs of the nation.

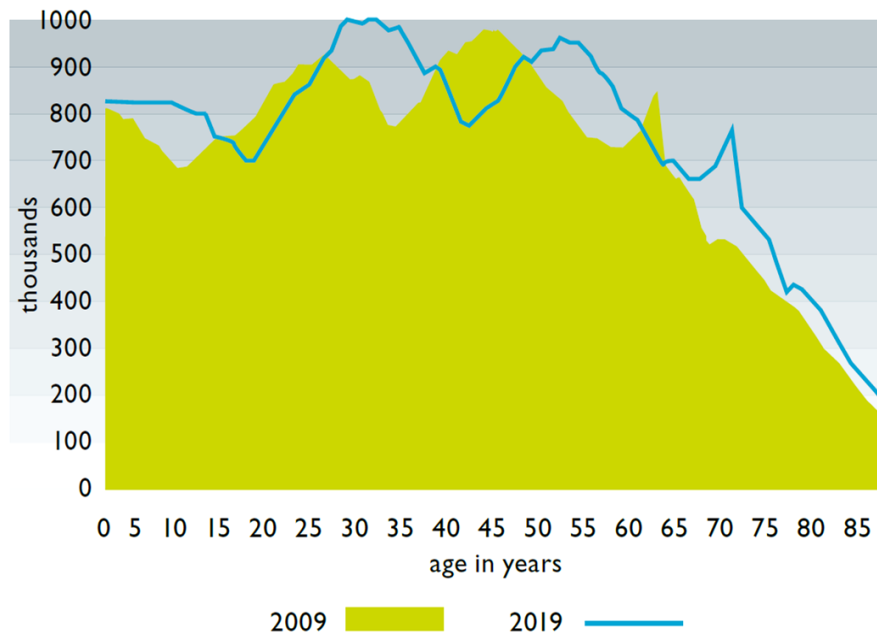
The UK had an estimated resident population of 61, 800, 000 in mid-2009 and 62, 300, 000 in mid-2010. According to the ukactive (2017), almost 15 per cent of the UK population (9,700,000 people) are now registered as members of a private health and fitness club or a publicly-owned fitness facility, which means that 1 in every 7 people in the UK is a member of a gym. In line with trends in most developed countries, the total population is growing fairly slowly. There are slightly more females than males in the population, due to women living longer on average than men. Population growth itself is not a key factor for the fitness industry, except over the very long term, but the age make-up of the population is of significance, because sport is largely driven by the demands of the young (Sport England, 2011).

However, population growth is now changing the demographical structure of society more rapidly than ever before and, according to Experian (2009), this population growth will have a major effect in future. According to the data, by 2019 there will be 3 million more (17% more) people aged 55 and over than there are today (Figure 6.4). The growth in under-16 and 25-to 35-year-olds will reach 15%. The latter group is the dominant age group of current fitness members (Leisure Database Company, 2012).

Another shift can be seen in the life stages of the population (Figure 6.5). For example, the parenting and post-parenting stages are shifting to older age groups; the point at which people consider themselves of old age and still with good health is shifting to perhaps even 80 years

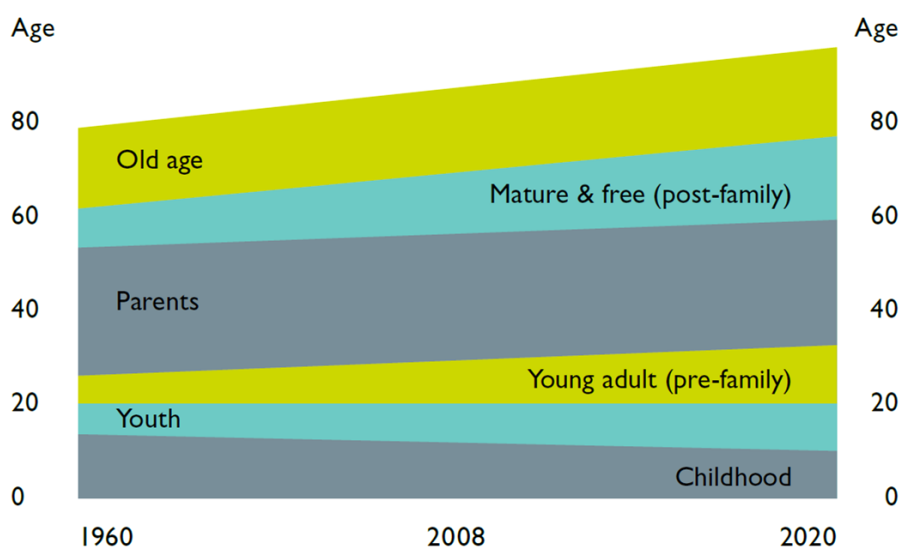
old by 2019 (Figure 6.5). For health and fitness operators a larger population means more potential customers. However, the consequence of this growth - greater diversity - means that an understanding of the key changing segments and overall society change becomes inevitable.

Figure 6.4: Age structure of the UK population



Source: Leisure Database Company, 2012

Figure 6.5: Life stages of the UK population



Source: Leisure Database Company, 2012

Alongside the growing population, the health and fitness industry has shown steady growth from the 1980s with its peak years in 1999-2002 (Oakley and Rhys, 2008). This growth has been in both new facilities opening and total memberships. According to the ukactive (2017), in recent years the number of new fitness facilities opening has continued to rise. Since its origin, the health and fitness industry has changed its profile from small independent operators to large multi-site branded operators. All together these multi-site operators run approximately 46% of the UK private clubs and serve 69% of all UK private fitness members (Oakley and Rhys, 2008).

6.7 Market trends

6.7.1 Continuing growth

During the recession, between 2008 and 2011, the fitness industry grew its total market value by 4%, followed by a 19% increase between 2011 and 2017 (LeisureDB, 2010-2017). The fitness industry has continued to grow despite a contraction in the national GDP of 4.9% and the most challenging trading conditions.

There was a consistent increase in new fitness facilities opening from 2010 onwards. However, in 2011 the overall number of facilities dropped from 5,885 in 2010 to 5,852, and in 2012 continued its decrease to 5,828. This trend reversed in 2014 and since then the overall number of facilities has been growing. It is important to note that after the recession the growth in industry has been driven by the public sector and low cost/budget fitness clubs (FIA, 2011) and in recent years leading to 2017 - by private chain operators.

6.7.2 Branded club chains in the private sector

Initially, in the 1990s, private health club groups were listed on the stock exchange, however, companies started turning to private-equity backing due to changing investment patterns in the sector (Wiggin, 2010). From 2005, an increasing number of acquisitions were seen on the market which assisted major brands in their consolidation.

Table 6.8 shows that multi-club operators are increasingly dominant in the private health club segment and now account for 47% of all fitness facilities, 72% of all private memberships and 77% of the market value.

Table 6.8: Number of multi-club and independent operators, 2011

	Multi-club operators	Independent operators
Fitness facilities, %	47	53
Membership base, %	72	28
Market value, %	77	23

NB: The base for percentage is the total correspondent figure for the private health club segment.

Source: adapted from FIA (2011)

Multi-club operators have a greater membership (up to three times) base than independent operators and charge higher membership fees (29% higher) which ensures their success (FIA, 2011). Among operators of private club chains the top ten brands have the greatest influence on the segment and on the market overall (Table 6.9). According to FIA (2011) these prevalent brands operate 21% of UK private clubs and have 48% of all private members.

Out of approximately 2,700 private fitness facilities across the UK, the top seven operators now account for 611 clubs between them (23% of the total private fitness facilities) with 2.08 million members (38% of total number of private clubs members). Table 6.9 below shows seven clubs ranked according to the total number of their members, from the largest to the smallest.

Table 6.9: Leading UK health and fitness club operators, 2011

Company	Brands	Clubs	Members	Members per club
David Lloyd	DavidLloyd/Next Generation/Harbour Club	79	450,000	5,696
Virgin Active Group	Virgin Active/Esporta	122	419,000	3,434
Fitness First	Fitness First	160	400,000	2,500
DW Sports Fitness	DW Sports Fitness	60	250,000	4,167
LA Fitness	LA Fitness	80	215,000	2,688
Bannatyne Fitness	Bannatyne's Health Club	59	180,000	3,051
Nuffield	Nuffield Health Fitness and Wellbeing	51	150,000	2,941
Total		611	2,080 000	

Source: Mintel, 2011a

In 2011 the David Lloyd Company became a leader with the largest membership base of 450,000 members across its sites in the UK. Virgin Active was second and Fitness First was in third place in terms of its membership base numbers; the latter appeared to be a market leader operating the biggest number of clubs (160) (FIA, 2011).

6.7.3 Budget clubs

As opposed to the biggest players in the industry, budget clubs formed a smaller but promising segment of private health clubs. These are clubs offering gym-only membership at 50% below the UK average (£21 per month or less), with extended opening hours, a high level of automation and reduced level of staff (Algar, 2011). Reducing costs and differentiation are the core strengths of budget clubs. Thus, they reduce competitive factors where the industry normally competes and eliminates entirely some aspects of their offer that are normally taken as given. On the other hand, in order to differentiate proposition, new original features are integrated as well as some aspects of the consumer proposition which are raised above the industry norm (Algar, 2011). There are a number of factors facilitating the growth of the budget clubs fitness sector; the key factors being: rising membership fees in fitness clubs across the UK; falling member attendance within present clubs; deterioration of service levels; consumers' experience of low-cost offers in other industries; simple and self-sufficient member proposition; and low joining barriers.

Algar (2011) accurately forecasted that by 2013 influence of the above factors would change the fitness industry structure. The report suggested that the majority of mid-market private fitness clubs would position up or position down, others would be sold or closed. In this case, the market of premium clubs as well as the market of budget fitness clubs would expand whilst there would be fewer clubs among the mid-market range.

6.8 Customer consumption trends

The modern fitness industry is largely driven by requirements placed by its customers. However, the task of meeting customer needs becomes a broad and complicated area of fitness club management since customer requirements depend on needs, expectations and differences in the expectations of each customer. The different gender, age, education, background, lifestyle and motivations of people will form various sets of requirements for the fitness club and each set is individual for certain groups of customers. For example, the study by Kim and Kim (1995) revealed that a good location, personal attention, status, and an

attractive workout area are not very important for customers. A dimension of social opportunity is not required by Koreans whereas it is important in the West. Other research by Athinos et al. (2005) showed that gender is a significant factor in both the formulation of desires of service quality and in differences in expectations with regard to service aspects. The most recent work by Mullen and Whaley (2010) found that there are significant differences regarding gender and age in reasons of initial involvement, sustained commitment to physical activity and in importance assigned to quality aspects in fitness facilities.

Mintel report (2011) breaks the population into three main target groups for health and fitness clubs: the Fit (45% of adults), the Healthy in Mind (33%) and the Inactive (22%). The report suggests that the Fit are the most likely to be existing members of clubs, whereas financial limitations are the biggest obstacles for the Healthy in Mind and the Inactive to join fitness club. However, the Healthy in Mind have more potential, particularly for operators of budget clubs. More detailed segmentation by Sport England which includes 19 groups (Appendix B) also demonstrates that the requirements of customers belonging to certain segments and participating in fitness activities will have particular requirements to price, range of facilities and accessibility of fitness club.

In connection with the above, it is important to understand emerging trends. 'Trend watching' helps companies to capture the rapid pace of change affecting their consumers. According to Hodgson and Algar (2011), 'Trend watching' is particularly important for fitness clubs as the nature of the relationship between the consumer and the brand can be volatile in this type of service organisation.

Mintel report (2011) suggested the following trends among customers of health and fitness clubs:

- 1) Such facilities such as gyms, swimming pools and classes are the most popular facilities in health and fitness clubs. Thus, men are more likely to work out in the gym and women are more likely to attend classes.

- 2) Not having to pay a joining fee is the factor most likely to encourage potential users of a health club to join. Lapsed users are more interested in being able to sign up on short-term contracts, whereas people who have never been users were more likely to be attracted by a free trial day at a club, reflecting their comparative lack of experience of a club environment.

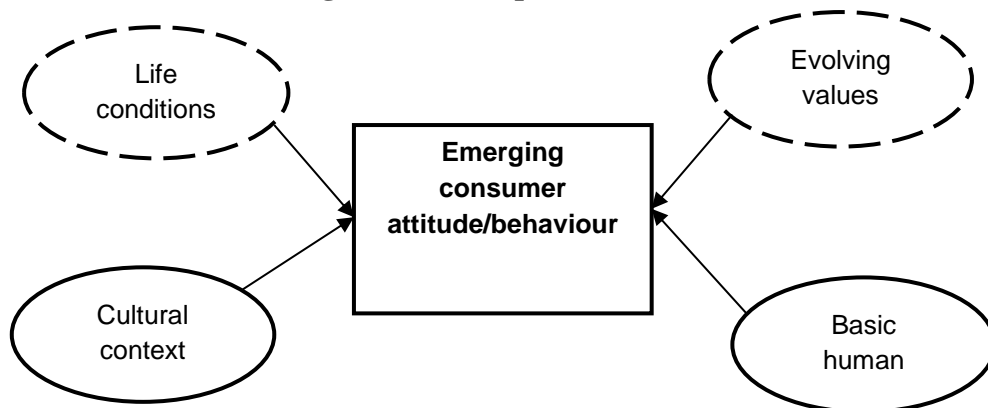
3) Not having to sign up for a membership contract is a new trend supported by several national providers across the UK. Although the majority of clubs have variations of access type (membership, pay-as-you-play scheme), the prices for pay-as-you-go sessions remain relatively high.

4) Using the latest technology in the club. Equipment innovation is essential for improving the gym experience: innovation in health and fitness equipment enables operators to deliver an improved experience, considerably improving member retention.

5) Experiencing new classes and styles of exercise. This helps to maintain the interest of customers and add a contemporary approach to fitness where fun becomes equally important with physical exercise. For example, dance-led classes in particular (Body Jam, Aero-Salsa, Hip Hop Dance Fitness, Zumba etc.) emerged as a choice of fun and trendy ways to get fit.

In order to better understand the nature of trends Hodgson and Algar (2011) proposed a framework of multiple layers and depths of a trend (Figure 6.6). The framework reflects four main factors influencing trend development: life conditions; cultural context; evolving values; and basic human desires.

Figure 6.6: Factors influencing trend development



Source: adapted from Hodgson and Algar (2011)

Life conditions and evolving values are shown with a dashed line to illustrate their changing nature, whilst cultural context and basic human desires are seen to be more constant. Analysis of changing life conditions considering the political, economic, social, technological, environmental and legal factors (PESTEL analysis) can provide a general picture of people's lives and allow for operation with quantifiable evidence for future planning. Understanding the cultural environment, evaluating the position of trends in terms of people's evolving

values and building in a constant factor on basic human desires leads the way to expressing the trends in attitude and behavioural terms.

With the aim of understanding customers' needs the fitness clubs face the challenge of "winning intangible space" (Hodgson and Algar, 2011) as opposed to attempting to compete with tangible assets (building, equipment etc). Those intangible features include the club atmosphere, the actions/behaviours and personalised content. This clear trend, embracing the needs of different groups of customers, leads to expression of individuality. Hodgson and Algar (2011) proposed three scenarios for fitness clubs in order to compete on a new level, focused on contemporary customers' needs of individual expression (Table 6.10).

Table 6.10: Scenarios for fitness clubs appealing to individuality of customers

	Scenario 1 Experiensual Health Club	Scenario 2 The Urban Fitness Pod	Scenario 3 Pro-Science Health Club
Focus of scenario	Environmental issues	Digital technology	Bio-medical breakthroughs
Human desire to appeal to	Tranquillity, idealism and social contact	Efficient and fast fitness activities	Order, social acceptance and individuality
Philosophy of operation	The high touch, low tech	Individuality through technology, interaction between member and machine.	Transition from diagnosis through to treatment.
Role of staff	Staff are more life coaches than sports technicians.	Very limited staff contact, only if really needed	Staff as interpreters of complex well being data

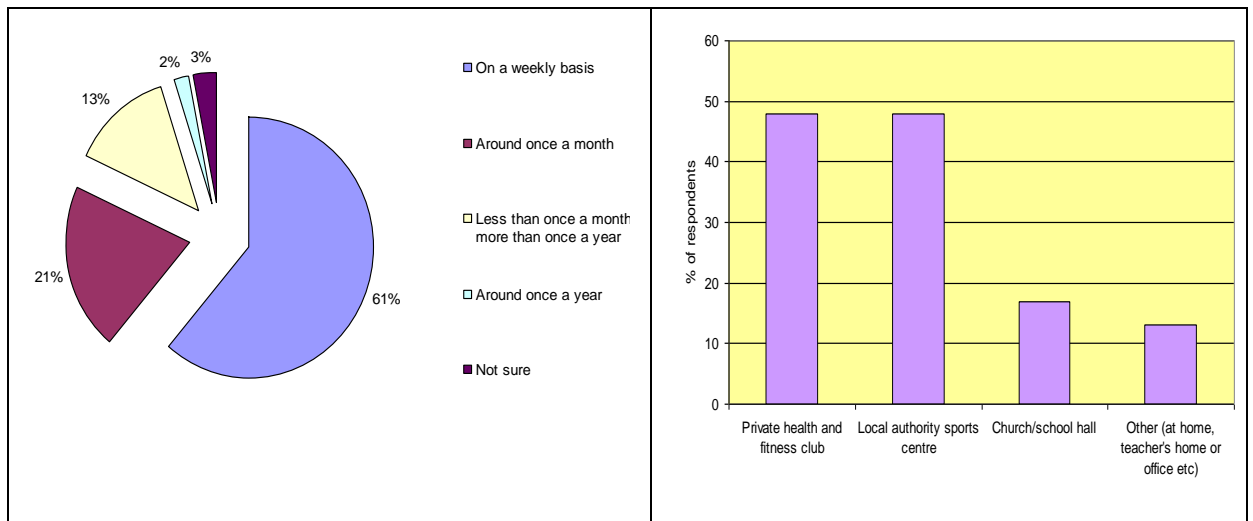
These three scenarios show that appealing to individuality can be done though different approaches, i.e. naturally (Scenario 1); digitally (Scenario 2); and medically (Scenario 3). However, all of them bring a human emphasis to the technological developments. Also, all scenarios are based on understanding the layers of trend development. Thus, the focus of scenario depends on life conditions and evolving values, philosophy of operation; and staff role, which relies on cultural context, whereas appealing to basic human desires implies careful identification of the target group and in-depth research of their natural needs.

6.9 Fitness classes and fitness suites (gyms)

According to the survey by Mintel (2015) exercising in the gym and taking part in fitness classes are the second most popular types of activities amongst customers of UK public leisure centres (35% and 19% users respectively), after social (59%) and individual swimming (47%). Despite the popularity of these activities, only 7% of customers used the services of personal trainers or swim instructors. Statistics also show that 86% of customers are satisfied or very satisfied overall with the facilities and services provided by the public leisure centre they attend (Mintel, 2015).

The forecast provided by Mintel's (2007) report on fitness classes (last report to date on fitness classes) in the UK predicted a considerable increase in spending on health and fitness between 2007 and 2012 from £2,346 m to £2,900m, with the size of the fitness classes market growing to £1100m in 2012. The report indicated that more than one third of respondents had been to a fitness class in the last twelve months, yet approximately the same figure applies to those who have never tried fitness classes before. Private health and fitness clubs and local authority sports centres were the most popular venues. Attendance of those who have been to a fitness class in the last 12 months is shown in Figure 6.7 below.

Figure 6.7: How Often and Where Fitness Classes Are Attended



Source: Mintel (2007)

In terms of motivation for attending a fitness class, over 60% of respondents expressed that the scheduled nature of classes makes it easier for them to stay motivated, whereas 40% of respondents like the social aspect of the classes. Interestingly, almost 40% of those who have not been to a fitness class in the last 12 months stated that they prefer to exercise on their

own, which included going to the gym; 20% of respondents from the same group expressed having no interest in fitness classes.

Hill and Green (2012) categorised health and fitness facilities into three main categories: special purpose facilities; single-purpose facilities; and multi-use facilities. Special purpose facilities are those that contain spaces and equipment for specific activities and outcomes (e.g. weight training, areas for group exercises, swim pools), whereas single-purpose facilities provide customers with only one sporting opportunity (e.g. cycling, yoga, boot camp). Multi-use facilities contain multi-activity opportunity such as gymnasia, courts, a climbing wall and wrestling facilities. Most of the private fitness clubs and local authority sports centres fit into this typology, depending on the size of the facility. Yet, the recent Health club industry mid-market report (Algar, 2015b) suggested that there is a developing trend coming to the UK from the United States; the idea of multipurpose facilities providing a broad range of services is being slowly 'salami-sliced' by a highly specialised fitness offering excelling in one type of fitness activity which attracts from a significant minority of members from a multipurpose facilities.

Another recent report on UK Boutique Fitness Studios (Algar, 2015a) suggested that more consumers are choosing to hold membership of multiple clubs or instead opting for a 'pay-as-you train' relationship with fitness studios. This option provides consumers with a more open relationship with fitness providers and reflects the choice in favour of the 'best-in-class' approach that some customers make for their health and fitness regime. On the other hand, this leaves fewer opportunities for a single fitness operator to 'monopolise' a consumer's health and fitness experience. American data from IHRSA (2015) shows that one in five members of multipurpose clubs hold a second membership; seven in ten consumers using indoor cycling studios were users of at least one other facility and eight in ten among those using a boot camp.

Results of the TRP 10,000™ survey carried out in the UK in 2013 with 10 000 health and fitness members indicated that customers who have been members of multiple clubs were more likely to report only working out in the gym compared with members for whom this is their first ever club. Also, longer-term members were less likely to report gym only and more likely to report group exercise compared to new members. Alongside the changes taking place in the global fitness industry landscape (i.e. 'salami-slicing', growing popularity of physical activity alternatives), it has been noted that 'group exercisers are 26% less likely to cancel than gym-only members; there's something unique about group exercise that leads to better

retention that's not fully explained by gender, age, membership length, club history or visit frequency' (The Retention People, 2013, p.3).

6.10 Summary

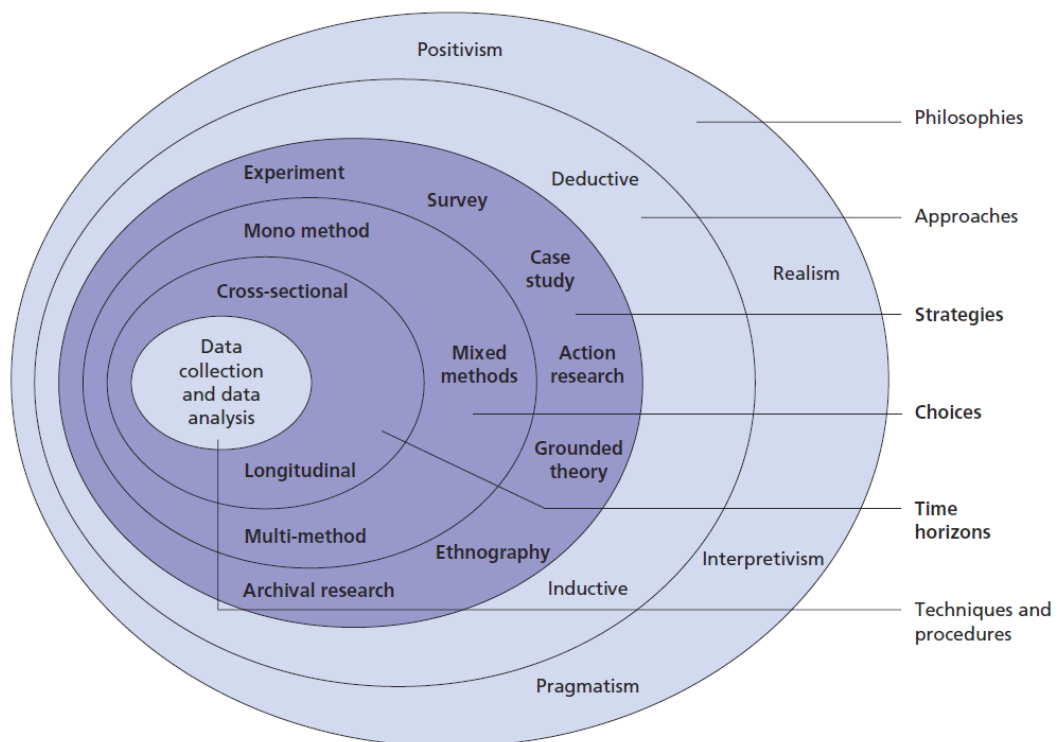
Since the late 1970s, the fitness sector in the UK has grown into an almost 5 billion pound industry. The contemporary definition of a 'health and fitness club' proposed by Sport England (2002) embraces a wide range of facilities varying in size and purpose, each with certain target markets, key services, key capabilities and key competitors. The industry is currently regulated by government legislation and industry-specific requirements set by trade associations and voluntary organisations. The health and fitness club market consists of two sectors - the private sector (health clubs) and the public sector (leisure centres) providers. These sectors are of comparable size and they operate on the basis of similar business principles, yet there might be some significant differences in membership base and philosophy of operation, depending on the region and location. Continuing growth, expansion of branded club chains in private sector and rise of budget gyms have shaped market trends in the last seven years. Statistics showed that most customers tend to use the gym, swimming pool and classes, with particular emphasis on using the latest technology and experiencing new classes and styles of exercise. Moreover, gym and fitness classes became the second most popular types of activities amongst customers of UK public leisure centres in 2015. It has also been captured that participation in group exercise and working out in the gym can be linked to loyalty behaviour patterns, which in their turn can affect perception of service quality and satisfaction with the service.

CHAPTER SEVEN – RESEARCH METHODOLOGY

7.1 Introduction

The aim of this chapter is to place the study within a positivistic philosophical perspective and to present in detail the chosen quantitative mono-method research design. In order for the study to be coherent and consistent, this chapter was informed by the 'Research Onion' by Saunders et al. (2009) which presents the layers of the methodological decisions for research and a range of options within each of the layers (Figure 7.1). The Chapter covers ontological and epistemological considerations for the study and places it within a positivistic paradigm (Section 7.2.1-7.2.3); it also takes into account a number of issues with the philosophy in previous service quality studies (Section 7.2.4). The research approach is described in Section 7.3 and justified through examining the logic of the study's research purpose and research strategy. Section 7.4 is dedicated to the research method of the study - quantitative mono-method design and includes identification of the research population and chosen sampling technique; a detailed description of the model's development; the survey design; questionnaire administration; and ethical considerations. The chapter concludes with a description of the data analysis and aspects of validity and reliability.

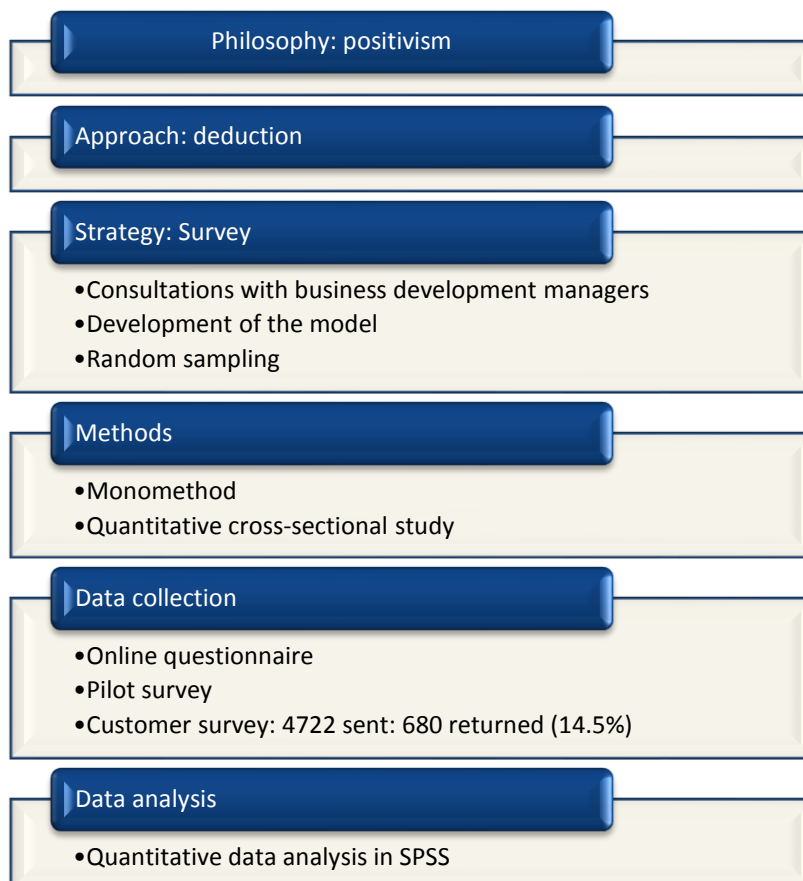
Figure 7.1: Research Onion



Source: Saunders, Lewis and Thornhill, 2009

A diagram of the research process for this study is presented in Figure 7.2. First, ontological and epistemological assumptions are established, alongside the discussion on existing philosophical paradigms and philosophical issues in service quality studies to date. Secondly, the deductive research approach is described by setting out the logic of the research, establishing the study purpose and identifying the research strategy. Finally, the quantitative design of this study is presented through outlining the population of the study and the sampling technique employed, as well as a detailed explanation of the process associated with the development of data collection tools. Three rounds of consultations with business development managers took place in order to negotiate a workable model for the questionnaire, which would measure perceived service quality amongst 14 sports centres.

Figure 7.2: The diagram of the research process



After piloting the questionnaire, quantitative cross-sectional study took place at the same time as an annual customer satisfaction survey using a random sample from customers' database (different from the sample for the annual satisfaction survey). Collected data was analysed using SPSS and findings were presented in the report produced for Kirklees Active Leisure (KAL). Development of the model, structure and administration of the questionnaire,

followed by an outline of the data analysis; validity and reliability aspects; and ethical considerations are presented in this chapter.

7.2 Research philosophy

Burrell and Morgan (1979) related the essence of research philosophy to 'the nature of society and the nature of science'. Saunders et al. (2009) define research philosophy as a term related to 'the development of knowledge and the nature of that knowledge'. 'Nature of science' by Burrell and Morgan (1979) embraces Saunders et al.'s (2009) knowledge-related definition; it makes "nature of society" a separate concept with its consequences merging into sociological paradigms. By adopting a particular philosophy a researcher declares his/her view of the world and of the knowledge development process. Proctor (1998) argues that a clear understanding of the philosophical research basis determines overall research design, underpins the judgement of applicability of certain strategies, ensures consistency and provides reasoning for research methods within an accepted epistemological paradigm. Therefore, declaring certain assumptions about how the world is viewed brings consistency, however, it is also the responsibility of the researcher as there are implications for the choice of research strategy. Similarly, Holden and Lynch (2004) suggest that "research should not be methodologically led, rather that methodological choice should be consequential to the researcher's philosophical stance and the social science phenomenon to be investigated" (p. 397). Questions of method are also viewed as secondary by Saunders et al. (2009) as opposed to questions of the world view guiding the research: this priority of philosophy appears not only in choices of method but in more fundamental ways of ontology and epistemology.

An interesting opinion on the importance of research philosophy was expressed by Rod (2009):

"...marketing academics should be free to subscribe to whatever guiding epistemological and ontological philosophy they choose, because all that subscribing to a particular philosophy should do, is determine the how's, why's, when's, where's, and who's of a piece of research; not it's "value". Actual market behaviour will determine its value" (p. 128).

Practically, by adopting a certain philosophy the researcher admits the need to embrace a meaningful understanding of a particular field and fits the work within traditionally accepted approaches. This allows the research to clearly communicate its position and conceptual scope as well as its results, ensuring better interpretation by the wider research community. In light of this connection, another practical question arises: how to consistently maintain the declared philosophy throughout the whole research processes. Johnson and Clark (2006)

argue that reflection upon philosophical choices and their justification, in relation to the alternatives, are both more important than the fact that the research is being philosophically informed.

The process of choosing a research philosophy is largely determined by the field of study. In the perceived service quality area, Martinez and Martinez (2010) suggest application of philosophies of realism or constructivism. At the same time, however, they suggest that the distinction between these philosophies should not distinguish disparate forms of conceiving service quality research. There are different ways to describe philosophies for research. Most of them fall into two ways of describing the main philosophical aspects for research and are widely accepted – ontology and epistemology.

7.2.1 Ontology

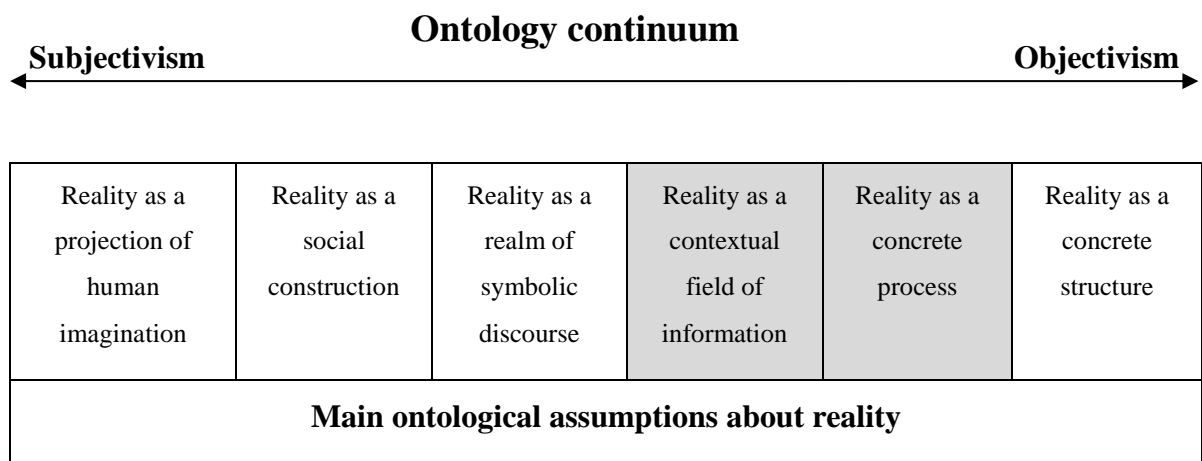
Ontology is one of the dimensions that form an overall philosophical position of research. It has been defined as a branch of philosophy which studies the nature of existence or being, the nature of reality, and relates to assumptions which concern the very essence of the phenomena under investigation (Burrell and Morgan, 1979). In other words, it assists in the identification of the way the world functions and the researcher's commitment to particular views (Saunders et al., 2009). The primary question of ontology is whether an objective reality exists (Tronvoll et al., 2011). As any research participates in or creates the reality by happening itself, the researcher's view of reality is crucial for proceeding with any further assumptions, conceptualisations, approaches, developing of tools, type of data collection and, finally, results interpretation (Holden and Lynch, 2004; Tronvoll et al., 2011). Therefore, taking a certain position towards objectivity of reality becomes important: it creates a platform for understanding what the research stands for as well as where it fits in the accepted body of knowledge.

Two positions take place within the area of ontology, namely objectivism and subjectivism. Objectivism assumes that reality is objective, i.e. the existence of reality is external and independent of social actors and their interpretations of it (Saunders et al., 2009). On the other hand, subjectivism assumes that reality is formed by social actors. This means that individuals contribute to creating social phenomena, therefore reality is subjective as it does not exist independently on its own. Saunders et al, (2009) adds that subjective reality (or social phenomena) represents continuous change through the process of social interaction and needs to be constantly revised.

By their initial construct, objectivism and subjectivism represent ontological opposites feeding into the differentiation of other philosophical positions each of which have a tendency either towards objectivity or subjectivity. In the research world, both positions have their proponents but equally have received critique. However, the field of study may determine the basis for following one or another view. For example, objectivism originated from natural sciences where it had been historically successful, however, it has been criticised as inappropriate for the study of social science phenomena (Holden and Lynch, 2004). It is claimed that objectivism fails to explain more dynamic and interrelated patterns in social sciences. Proponents of subjectivism consider that it is more appropriate to perceive reality through the lens of complex human beings who create reality and then develop it through living it.

On the basis of work by Morgan and Smircich (1980), Holden and Lynch (2004) constructed an ontological continuum of subjectivism-objectivism to explain what the main assumptions about reality can be (Figure 7.3). The extreme of subjectivism corresponds to the view that reality does not exist without social entities as it is a projection of human imagination. At the other extreme, pure objectivism pursues the idea that reality is a concrete structure, which is widely accepted in natural sciences.

Figure 7.3: Main ontological assumptions about reality in a social science context



Source: Holden and Lynch (2004)

Another perspective on the ontological debate was proposed by Fine (1986) who introduced the concept of ‘natural ontological attitude’ (NOA). NOA suggests that the debate between philosophical perspectives creates harmless ambiguity that research can live with. NOA is an attitude towards science which stipulates not pushing “the issue of the specific character of scientific acceptance farther than the reach of ordinary scientific procedures and common

reflective thought allow” (Fine, 1991, p. 94). Therefore, it creates no specific ontological commitments as an attitude does not prescribe whether the reality is social or objective. NOA implies the following considerations: 1) the ultimate truth is to be perceived as an explanatory concept; 2) recognition of the openness of science, choice and judgment; 3) focus on contextuality not necessarily generalisability); 4) science is a human activity and its understanding involves frameworks and modalities for social action; 5) attempt to understand the phenomena of opinion formation and dissolution in science in all its particularity (Fine, 1996; Rod, 2009).

In the current research, the focus of which is perceived service quality, reality is viewed as a concrete process (see Figure 7.3, coloured pattern). According to the definitions of service, service marketing mix, quality and perceptions discussed in previous chapters, each of the elements have a pattern of process orientation. Table 7.1 summarises the ontological ingredients of perceived service quality.

Table 7.1: Ontological structure of perceived service quality

Research concepts	Definitions	Authors	Ontology
Service	A process or performance Interactions A process that leads to an outcome during production and consumption processes Dynamic activities and processes	Lovelock (1991) Grönroos (2001) Vargo and Lusch (2004a) Gummesson (2007)	Process
Service marketing mix	Functioning of quality-generating resources with an aim of achieving a certain result for the customer	Grönroos (2001)	Process (communication)
Quality	Avoidance of loss Fitness for use or purpose Conformance to requirements Continuous improvement Meeting and/or exceeding customers' expectations	Taguchi (1970) Juran (1974) Crosby (1979) Deming (1986) Grönroos (1984); Parasuraman et al., (1985)	Process
Perceived quality of service	The outcome of an evaluation process where the customers compare their expectations with service they have received	Grönroos (1984)	Contextual field of information

In Chapter 2, the service marketing mix is explained as a structure of quality generation that aids understanding of how controlled elements of service can be utilised by a firm to achieve customer satisfaction. Thus, from a service marketing mix perspective, controlled elements of service are used to communicate quality, value, or fitness for purpose of the service. Figure 7.4 depicts elements of perceived service quality in terms of the communication process between service providers and customers. Encoding happens within the organisation during the planning of marketing mix attributes and delivering a service, whilst decoding starts when a customer is experiencing a service; the latter forms perceptions in customers and subsequently shapes their service quality image.

Similarly, concepts of service and quality are viewed as processes. Perceptions are used for construction of meaning on the basis of subjective customers' perspectives and in this study they are used with the intention to generalise findings. The latter complements the study with ontological understanding of reality as a contextual field of information.

Figure 7.4: Perceived service quality in terms of the communication process between service providers and customers



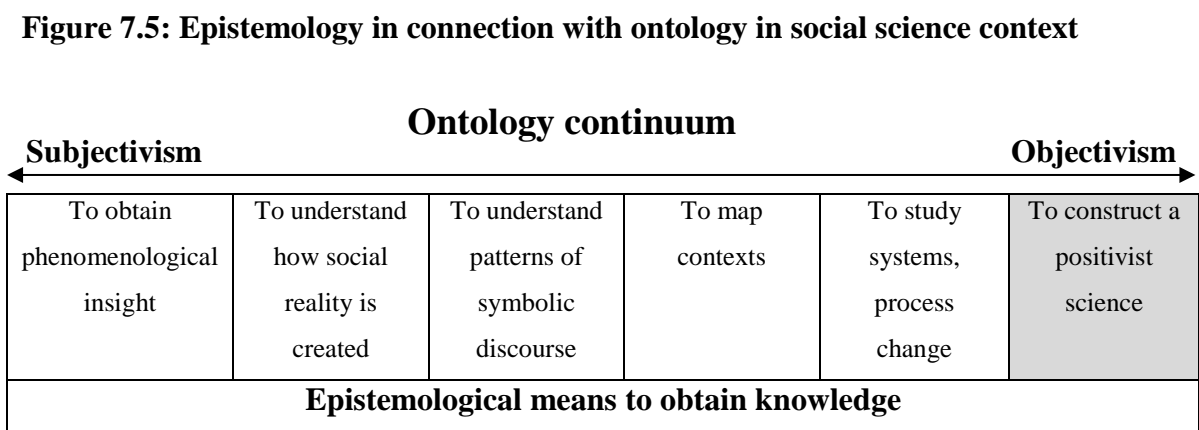
7.2.2 Epistemology

Epistemology is closely related to ontology (Hatch and Cunliffe, 2006), and it develops further the inquiry into the most appropriate way to research the reality, as well as what is the knowledge, its sources and limitations (Eriksson and Kovalainen, 2008). Guba and Lincoln

(1994) refer to epistemology as the study of the issue of how it is possible to know things and what the relationship is between the inquirer and what can be known. While ontology questions what exists, epistemology places under inquiry how what exists may be known, what can be known, and also what criteria must be met in order to produce acceptable knowledge (Blaikie, 1993). According to Hughes and Sharrock (1997), epistemology is the study of the nature of knowledge to answer the question “How is it possible, if it is, for us to gain knowledge of the world?” (p. 5). Hendricks (2006) defines epistemology as “systematic and detailed study of knowledge, its criteria of acquisition and its limits and modes of justification” (p. 1). Tronvoll et al (2011) offers two basic dimensions of epistemology: 1) how we know the world; and 2) the relationship between the researcher and the research topic.

Hendricks (2006) proposed that epistemology can be pursued in two ways – ‘mainstream’ epistemology and ‘formal’ epistemology. The mainstream epistemological approach looks at acceptable knowledge as one satisfying sufficient conditions by using common-sense examples and folksy examples/counterexamples. Formal epistemology uses axioms or relies on logic and computability tools in order to acquire knowledge. Although Hendricks (2006) emphasises an “initial difference in ambitions” between these two approaches, he sees them as complementary rather than opposites; they can be used to eliminate or explain contradictions and inconsistencies within the chosen approach.

As various contexts and phenomena may require different means to obtain knowledge, researchers may tend to favour certain epistemologies depending on the problems under investigation. Thus, Holden and Lynch (2004) propose a continuum of epistemological positions, or objectives, for acquiring knowledge about social phenomena influenced by ontology (Figure 7.5):



Source: Holden and Lynch (2004)

As ontology and epistemology are interrelated, assumptions about the nature of reality influence the epistemological view of the researcher (Holden and Lynch, 2004). A combination of ontological and epistemological assumptions leads to the formation of certain standpoints for a researcher, where they decide to clarify their view of reality, assumptions of what can be investigated and how, as well as the way, it can be communicated to the community.

In the context of service research, "different epistemological approaches can be used to describe how to view the world and explain the activities and interactions that form the basis for the research processes" (Tronvoll et al, 2011, p.563). Thus, epistemologically, this study seeks to construct a positivist science (see Figure 7.5, coloured pattern) by providing standardised, system-based knowledge about service quality perceptions of customers as well as provide guidelines for how companies should act to increase customer retention. The researcher maintains a distance from the research objects and emphasises a theoretical perspective during the design of the data collection tools and collecting data. In this study, the research design is based on bringing participants into the research 'interaction' by the researcher, whose position remains constant throughout the research process. This corresponds to the a priori, or static approach to service research (Tronvoll et al, 2011), which focuses on the present as a stationary situation, intends to explain the structures (e.g. determinants, consequences) and gives the researcher a snapshot of the service process. To date, the most popular approach amongst service scholars has involved snapshot methods (e.g. surveys) and quantitative research design, which are also applied in this study. This research design is best suited for providing managers with rapid and normative information for the market decisions. Tronvoll et al. (2011) note that future research within a positivistic paradigm needs to refine existing methods in order to capture more detailed and more complex structures of the studied phenomenon. This study refines methods for specific areas of service quality in the public fitness sector - fitness suites and fitness classes.

7.2.3 Philosophical paradigms

In a research context, the term 'paradigm' is used to explain the philosophical foundations for research. According to Kuhn (1970), a paradigm is the total entity of beliefs, values, and techniques shared by the members of a given community. Crotty (1998) states that a paradigm establishes "a certain understanding of what is entailed in knowing, i.e. how we know what we know" (p. 8). Brand (2009) generally describes a paradigm as "the ultimate framework within which a piece of research is located" (p.432). Recently, authors have increasingly

started linking paradigms with the combined methods used in research, i.e qualitative and quantitative (Denscombe, 2008; Yvonne Feilzer, 2010; Leech et al, 2010; Youngs and Piggot-Irvine, 2012). For example, Yvonne Feilzer (2010) argues that paradigms are “prescriptive and ... requiring particular research methods and excluding others” (p.7).

Similarly to Kuhn’s (1962) view, a paradigm directs research efforts and reasserts itself to exclude other paradigms. In the context of social research, the agreement has still not been established as to what paradigms are available for pursuing research, instead various typologies of paradigms exist (Brand, 2009). Paradigms, or philosophical frameworks, are used to formalise and systemise knowledge; in a research context they also prescribe certain ways of progressing with the research process (Yvonne Feilzer, 2010). Brand (2009) suggests that paradigms form a critical aspect of any research activity. Nevertheless, paradigms may restrict a researcher’s intellectual curiosity and creativity, and limit their sociological imagination' (Yvonne Feilzer, 2010).

There is a vast range of philosophical paradigms that exist across disciplines and are associated with certain methods. This section discusses the following main paradigms: interpretivism; constructivism; realism; pragmatism; and positivism (Figure 7.6).

Figure 7.6: Main philosophical paradigms

Interpretivism	Constructivism	Realism	Positivism
	Constructionism	Critical realism	
Pragmatism			

The discussion covers the features and logic of each paradigm. Also, the role of philosophy in service quality research is critically analysed and justification for the philosophy for this study is provided.

7.2.3.1 Interpretivism

Interpretivism originated from the idealist German tradition and its main aim is to understand meanings rather than provide explanations (Burrell and Morgan, 1979; Schwandt, 1994). It is considered to be an alternative position to the positivism which respects the differences between people and the objects of natural sciences and requires a grasp of the subjective meaning of social action (Bryman, 2008). An interpretivist researcher necessarily tries to understand the differences between humans in their social roles (Saunders et al, 2009). Ontologically, objective reality does not exist, but it is subjective and socially constructed,

always changing. This means that all understandings of reality or phenomena depend on the situation, its complexity and context. Epistemologically, subjective meanings and social phenomena are the source of knowledge. In order to grasp them, interpretivism focuses on the details of a situation and investigates the reality behind these details. This helps to uncover subjective meanings that serve a motivation for actions (Saunders et al, 2009). This way of acquiring knowledge is the opposite of positivism. If positivists are looking for the truth in facts and experiments of objective reality, interpretivists are looking for the truth inside, or within a certain context. As context changes, meanings change, therefore, there is no one single unchanging reality that can be discovered; multiple realities, depending on different contexts, can be investigated to be understood. Burrell and Morgan (1979) noted that understanding in interpretivism is often based on the level of the individual, and the way individuals interpret their social role depends on the meaning they give to these roles (Saunders et al., 2009). In their turn, the meanings individuals give to these roles and further interpretations depend on an individual's own set of meanings. This complex interdependency of an individual's perception of the world and social reality becomes a reason for the researcher to pay great attention to detail and to the particular situation's meanings (Schwandt, 1994) in order to discover the truth from an interpretivist perspective.

7.2.3.2 Constructivism

According to Gergen (1999) constructivism is a view in which an individual mind constructs reality but within a systematic relationship with the external world. It has its origins in the personal construct theory (Kelly, 1977) of cognitive behaviour which implies that an individual creates knowledge structures and mental models through experience and observation. With its further development, the individual cognitive viewpoint incorporated the social environment and became a holistic cognitive stance (Ingwersen, 1999), holding that individuals create knowledge structures and mental models under the influences of history and social relationships. Later, social constructivism emerged on the basis of re-thinking an individual's role in the formation of knowledge. In social constructivism, knowledge is considered to be social in origin as it is constructed through the actions of individuals who live in a world that is physically, socially and subjectively constructed. Thus, as a social actor the individual constructs internal knowledge through ongoing interaction between internalised knowledge and their own participation in the external world (Talja et al, 2005).

7.2.3.3 Realism and critical realism

Like positivism, classical realism assumes that the world exists independently of its being perceived (Hunt, 1990), therefore, reality is external and objective. The epistemology of realism states that theories can be tested against facts that exist independently of theories about them (Martinez and Martinez, 2010). In the critical realist tradition, the straight logic of experimentation of positivism is replaced by the idea of “a continual process of conjecture and falsification” (Crotty, 1998, p. 31). Being ontologically similar to positivism, critical realism assumes that reality exists but, epistemologically, it can be known only imperfectly. According to Bhaskar (1975; 2008) critical realism is based on the belief that there is an existence of a ‘reality’ independent of what people see, think, perceive, experience, theorise or construct. Guba and Lincoln (1994) suggest that it is “flawed human intellectual mechanisms and the fundamentally intractable nature of phenomena” (p.109-110) that prevent external phenomena from being understood perfectly. As only an approximation of reality can be achieved by knowledge, this approximation is valid only until some evidence of its falseness appears. Thus, there is always the possibility of error and findings can be considered to be only “probably” true. Saunders et al. (2009) suggest that in a critical realist’s view, objective reality is interpreted through social conditioning, and, epistemologically, objective reality/ social phenomena create(s) sensations which are open to misinterpretations.

7.2.3.4 Pragmatism

As a philosophical movement, pragmatism emerged in America at the end of the nineteenth century and was initially based around increasing agreement of the rejection of traditional assumptions about the nature of knowledge, truth and research inquiry (Tashakkori and Teddlie, 2002). As an agreement on disputes on many long-going philosophical polarities had not been historically forthcoming, pragmatism rose as a feasible solution and a middle ground between philosophical opposites (Johnson and Onwuegbuzie, 2004). It situated pragmatism separately from direct paradigmatic rivalry (Tashakkori and Teddlie, 1998; Wahyuni, 2012). Although the importance of a clear philosophical position cannot be underestimated, and authors emphasise the consequent implications of a chosen philosophical paradigm on methods and practicalities of research (Holden and Lynch, 2004; Saunders et al, 2009), pragmatism looks at the research from the reverse perspective – to consider the research question as the most important determinant of the epistemology and ontology. It enables a researcher to adapt the view that works best in the given context, and, if context changes, to see a change of the view as a natural reaction.

Denscombe (2008) points out the danger of confusing research pragmatism and commonsense understanding of being pragmatic (e.g. “anything goes). He goes on to further emphasise the philosophical meaning of pragmatism and suggests that a commonsense meaning of pragmatism “is not a meaning that should be associated with the mixed methods approach” (Denscombe, 2008, p. 274).

Epistemologically, depending on what the research question is, acceptable knowledge can be provided by either or both observable phenomena and subjective meanings (Saunders et al., 2009). Focus on practical, applied research, solving practical problems in the “real world” (Creswell and Plano Clark, 2007, pp. 20-28) becomes a priority as well as the integration of different perspectives for the benefit of interpreting the finding. Tashakkori and Teddlie (1998) suggest moving away from understanding the philosophy adopted for the research as a certain position, and from contrasting this position with its unadopted alternatives. Instead, the authors advise looking at the philosophy as a continuum; this would allow the researcher to adopt all range of interrelations with the phenomena under investigation depending upon what is appropriate for a particular situation (e.g. being interactive, observing or experimenting).

A relatively novice and liberal paradigm, pragmatism, has received criticism in regard to its failing to satisfactorily address the question “For whom is a pragmatic solution useful?” (Mertens, 2003). Also, the meaning of usefulness or workability is often vague unless the researcher-pragmatism explicitly addressed this. Finally, contrasting logical and practical aspects, pragmatism is criticised for its logical failure as a solution to many philosophical disputes (Johnson and Onwuegbuzie, 2004).

7.2.3.5 Positivism

The philosophy of positivism has grown from practices in the natural sciences and the breakthrough of scientific method in the nineteenth century. The approach in natural sciences relied on the assumption that the subject of the research can be investigated with objectivity, and the truth about it can be established with a reasonable degree of certainty (Brand, 2009). For the social sciences, it means that the researcher works with social reality that can be observed and as a result law-like generalisations can be produced (Remenyi et al., 1998). It implies that the researcher does not affect the subject of the research and also has independency from it.

From an ontological perspective, the reality exists as external, objective and independent from social actors. In this case, the epistemological view of the researcher is that it is possible to discover this external reality. However, only observable phenomena can provide credible data and facts. The phenomena are reduced to the simplest elements in order to establish causality and law like generalisations (Saunders et al., 2009). According to Tronvoll et al. (2011), positivism is the most frequently used paradigm within service research. Quantifiable measures of variables and conclusions about a phenomenon, evidenced by data from a representative sample, indicate that service research is positivistic. These studies are theoretically driven and they view reality in an objective way, with the intention of providing useful guidelines for companies, employees or customers. As reality is viewed in an objective way, the researcher and their instruments are separate and independent from the phenomenon. Codification of data takes central place in positivism with the aim of producing generalisable knowledge.

In the context of service research, Tronvoll et al. (2011) described positivism from a combined perspective of static and a priori approaches (Table 7.2). They suggested that a static approach captures a stationary situation of the present (a snapshot); focuses on explanation of determinants and consequences and provides standardised, system-based knowledge. A priori approach is common for embracing quantitative research designs as well as providing distance between a researcher and participants. It is predominantly theory driven and uses predefined categories and figures with an aim of statistical testing.

Table 7.2: Static and a priori approaches to service research within a positivistic paradigm

	Static approach to service research	A priori approach to service research
Basic epistemological position	Actors are viewed as passive receivers in the transaction	Aim is to obtain a fixed language system and construct a positivist science
Description	Low exchange of knowledge Standardised System based Time is not essential	Theoretically driven Grand narrative of progress and emancipation Generalisable theoretical knowledge Rationality and truth as central concerns Proceeds from the self
Dominant research methods	Snapshot methods	Lab experiments, surveys

Source: adapted from Tronvoll et al. (2011)

Although a positivistic paradigm has its limitations, such as a rigid approach to methods design and restricted potential to explain more complex dynamic issues, it has been most popular amongst service researchers and has continuously served the needs of industry in terms of assisting management decision-making.

7.2.3.6 Research philosophy in this study

The use of positivism in service research has been advocated by leading service research, e.g., Lovelock and Gummesson (2004), Rust et al. (2004), Zeithaml et al. (1996). On the basis of ontological and epistemological assumptions about service quality, which were discussed in Sections 7.2.1 and 7.2.2, this study takes a positivistic stance (highlighted on Figure 7.6). Table 7.3 demonstrates epistemological assumptions and describes a combination of static approach and a priori approach within the positivistic paradigm in the study.

Table 7.3: Positivistic paradigm in the study

	Static approach to service research	A priori approach to service research
Basic epistemological position	Customers are viewed as passive receivers in the transaction	To obtain a fixed language system (i.e. dimensions of SQ) and construct a positivist science (i.e. SQ model)
Description	Low exchange of knowledge between organisation and participants Standardised and system based - customer satisfaction survey tool	Theoretically driven - theory of SQ and customer satisfaction Generalisable theoretical knowledge on service quality Rationality and truth as central concerns Proceeds from the self
Dominant research methods	Snapshot method - Survey	

Source: adapted from Tronvoll et al. (2011)

This study accepts that realistically there is a certain level of subjectivity when exploring the construct of perceived service quality. Service quality is indeed viewed as a result of the perceptions used for construction of meaning, on the basis of customers' subjective perspectives. However, by adopting a positivistic paradigm, this study standardises the design of the research tools and data collection, with the intention of generalising findings. There is scope for practitioners to interpret recommendations within a contextual field of information and evaluate the relevance of these recommendations with regard to specific problems within their organisations.

7.2.4 Issues with philosophy in service quality studies

7.2.4.1 Clarity on philosophical position

The major drawback of existing service quality models is in missing the clarity of the philosophical stance of particular research. All of the models have attempted to offer improved conceptualisation of service quality and its dimensions. The models have several service quality dimensions and, therefore, are multidimensional (Martinez and Martinez, 2010). Practically, these dimensions represent a measurement tool for service quality. However, perceived service quality itself belongs to a group of theoretical constructs - “a conceptual term used to describe a phenomenon of theoretical interest” (Edwards and Bagozzi, 2000, p. 156-157). Although these conceptual terms (constructs) are constructed by researchers, they refer to real phenomena existing regardless of the awareness and interpretation of the researcher and the person under study (Cook and Campbell, 1979; Messick, 1981). However, depending on the nature of the phenomenon, researchers may view constructs as representing constructions of the human mind and not real phenomena because interpretations of the word cannot be made without involving human sensations and perceptions (Peter, 1992). Different approaches to viewing constructs refer to the area of research philosophy as a separate subject of discussion: realists think of phenomena in terms of real world entities (Edwards and Bagozzi, 2000); constructionists argue that all phenomena are ultimately perceptions of the human mind, and as such, cannot be real in a pure sense (Peter and Olson, 1989). In both cases theoretical constructs themselves are not real in the objective sense but “verbal surrogates” (Edwards and Bagozzi, 2000, p. 157) for phenomena of interest regardless of whether the latter are perceived as real or not (Polyakova and Mirza, 2015).

Originally, variables/dimensions of service quality represent measures, i.e. “a quantified record taken as an empirical analogue to a construct” (Edwards and Bagozzi, 2000, p. 156). This makes explaining relations between service quality and its dimensions very important as they bridge the gap between theoretical construct and measurable empirical phenomena (Costner, 1969). Edwards and Bagozzi (2000) note that research often places significant emphasis on explaining casual relationships between constructs, but little attention is paid to explaining the direction of relationships between constructs and their measures.

Due to the impact that philosophy can have on an overall study, clarifying the philosophical position of the researcher can enable constructive critique across the research field. The critique from an appropriate standpoint (conceptual, philosophical, methodological,

operational) diminishes the possibility of blurred comments. It could also increase the positive developmental potential of models as other researchers will be able to contribute constructively from a similar standpoint (Polyakova and Mirza, 2015).

7.2.4.2 ‘Multidimensional problem’

As most existing service quality models have several quality dimensions, they are recognised as multidimensional (Martinez and Martinez, 2010). Practically, these dimensions represent a measurement tool for service quality. Work by Martinez and Martinez (2010) reviews models by Grönroos (1984); Parasuraman et al. (1985); Cronin and Taylor (1992); Rust and Oliver (1994); Dabholkar et al. (1996); and Brady and Cronin (2001) from the perspective of causal-effect relations between the service quality construct and its dimensions. In order to classify the models the authors use terms of formative and reflective models. According to Edwards and Bagozzi (2000), in formative models measures are correlated causes of a construct; whilst in reflective models constructs are viewed as causes of measures, which means that variation in a construct leads to variations in measures. Another difference between formative and reflective models is that constructs of formative models are inseparable from its dimensions and, therefore, a construct and its dimensions are not separate concepts. In reflective models, dimensions do not form constructs, but serve as proxy or manifestations of constructs. This means that a construct is unidimensional, as it exists independently from its measurement.

In their analysis Martinez and Martinez (2010) divided six service quality models into the three groups on the basis of their multidimensional nature – formative, reflective and formative reflective (Table 7.4). According to Martinez and Martinez (2010) the multidimensional and hierarchical model by Brady and Cronin (2001) combines features of both formative and reflective models: the primary dimensions form a service quality construct (formative perspective), and at the same time sub-dimensions reflect primary dimensions (reflective perspective).

With consideration for the formative/reflective aspect, the critique of these models is based around the following: 1) difficulty of conceptualisation; 2) difficulty with statistical procedure for empirical testing of models; 3) no indication of philosophical framework used to develop a model; 4) questionable validity of multidimensional constructs (for reflective models); 5) difficulty in including all relevant facets/dimensions that form service quality (for formative models).

Table 7.4: Classification of service quality models

Nature of model	Model/Authors	‘Multidimensional problem’ (Martinez and Martinez, 2010)
Formative	Grönroos (1984); Parasuraman et al. (1988); Cronin and Taylor (1992); Rust and Oliver (1994)	Service quality is formed by its dimensions. Use of reflective indicators for operationalisation, which makes service quality unidimensional rather than determined by dimensions.
Reflective	Dabholkar et al. (1996)	Service quality dimensions and subdimensions are distinct entities. Service quality score is not a weighted combination of its dimensions but the expected value of reflective indicators.
Formative-reflective	Brady and Cronin (2001)	Service quality dimensions and subdimensions are distinct entities. Overall attitude towards service (SQ) and service quality attributes (subdimensions) have the same common causes (dimensions).

In this connection Martinez and Martinez (2010) proposed three options for consideration when researching service quality:

a) To consider service quality as a distinct entity from dimensions without specifying any causal relationships between them (Realist perspective).

The assumption is that overall judgements of service quality are more influenced by general feelings towards the service as opposed to restricting them to the evaluation of specific factors. This suggests that dimensions of service quality need to include factors controllable by the company and all other factors should be left aside. Furthermore, other concepts contributing to the general feeling towards service quality perceptions should be explored by qualitative research. This option does not belong to either formative or reflective modelling as causal relationships are not specified and in this case service quality represents a unidimensional construct.

b) To consider service quality as a composite of several elicited variables (Constructivist perspective).

In this case, the qualitative stage of research will be responsible for obtaining variables for service quality from customers. Customers will also judge the importance and performance of each attribute of service quality, the weighted combination of attributes will represent the service quality index. This model corresponds with a formative approach to modelling.

c) To consider service quality as a composite of several elicited dimensions in a spurious model (Realist or constructivist perspective).

The essence of this option is similar to Option two as the service quality construct consists of several dimensions. However, the principal difference is that these dimensions are measured in a reflective way, i.e. using the classical multi-item scales applied in some service quality models.

The choice of one of these options relies on a philosophical approach adapted by the researcher. Martinez and Martinez (2010) suggest that these three options are compatible with more comprehensive conceptual models that integrate causes and consequences of perceived quality.

7.3 Research approach

7.3.1 Logic of the study

In order to proceed with a study, the philosophical basis of the research requires translation from the conceptual terms of theory into practical implications. Depending on the philosophical position, implications can be expressed using deductive, inductive or abductive logic in the study (Table 7.5).

Table 7.5: Deductive, inductive and abductive research approaches

Deductive	Theory/Hypotheses	Data collection	Findings	Hypotheses confirmed or rejected	Revision of theory
Inductive	Recognition of influence of other work	Data collection	Coding	Theory formulation	
Abductive	Recognition of influence of other work	Data collection	Theory formulation	Findings	

The Deductive approach is often related to the scientific or positivistic approach (Saunders et al., 2009), where the body of existing research is viewed as objective knowledge and used for constructing the theory for the research. The process of deductive research is described in five steps by Robson (2002) and it includes 1) deducing a hypothesis (a testable proposition about the relationship between two or more concepts or variables) from the theory; 2) expressing the hypothesis in operational terms (that is, indicating exactly how the concepts or variables are to be measured), which proposes a relationship between two specific concepts or variables; 3)

testing this operational hypothesis; 4) examining the specific outcome of the inquiry (it will either tend to confirm the theory or indicate the need for its modification); 5) if necessary modifying the theory in light of the findings,. Therefore, the essence of the deductive approach is formulating the theory from an existing body of knowledge and testing it with the help of proposed hypotheses. In terms of process, this creates an explicitly defined framework for the research and, by setting hypotheses, partly predicts possible variation of the final results.

Alternatively, the inductive approach is related to the philosophy of interpretivism (Saunders et al., 2009), with no intention of predicting the scope of results by testing hypotheses. It does not restrict itself within a defined theory that exists in the body of knowledge or formulated by the researcher. In reverse, it aims to discover meanings about the phenomena as they exist in a particular context. When adopting the inductive approach, a researcher chooses the appropriate topic and recognises the influence of work previously done in the area under investigation. The analysis of past works allows for narrowing of the research topic and formulating questions to be answered. Data collection, followed by coding of the information, leads to formulation of the theory. Thus, during data collection inductive research looks for patterns and categories in order to develop a theory that will explain these patterns. Table 7.6 presents the differences between deductive and inductive approaches.

Table 7.6: Differences between deductive and inductive research approaches

Deduction emphasises	Induction emphasises
Scientific principles Moving from theory to data The need to explain causal relations between variables The collection of quantitative data The application of controls to ensure validity of data The operationalisation of concepts to ensure clarity of definition A highly structured approach Researcher independence of what is being researched The necessity to select samples of sufficient size in order to generate conclusions	Gaining an understanding of the meanings humans attach to events A close understanding of the research context The collection of qualitative data A more flexible structure to permit changes of research emphasis as the research progresses A realisation that the researcher is part of the research process Less concern with the need to generalise

Abduction logic is usually associated with interpretivism and it is aimed to describe and explain activities, language and meanings of social actors. Using this logic, a researcher aims to uncover everyday beliefs and practices that are taken for granted in order to understand motives behind these activities. There are two stages in the abductive approach: description of activities and meanings and constructing explanation of them by deriving categories and concepts that can provide an understanding of the problem at hand. It should be noted that

although interpretive social scientists use abduction with a variety of research methods, they rarely articulate this logic, and appropriate methods for using abductive logic are still being developed (Lewis-Beck et al., 2004).

In explaining the impact of logic approaches on the research process, Morse (2003) uses the notion of “theoretical drive” – the overall thrust of the entire research programme. She suggests inductive theoretical drive for discovery and deductive theoretical mode for testing. The research presented here has a deductive theoretical drive based on its objectives and does not set hypotheses. Morse (2003) emphasises that research with an inductive drive provides opportunities for the researcher to test components of the emerging theory deductively; similarly, an deductive drive allows incorporation of induction or a discovery project. However, regardless of embedded parts of an “opposite approach” (an inductive approach with elements of deductive or vice versa), “all projects have either an inductive or deductive theoretical drive; they can be neither neutral nor equally informed by inductive and deductive studies” (Morse, 2003, p.197). This research looks at perceptions of service quality and satisfaction in a deductive manner, by utilising theory and previous service quality models as a basis for the study.

7.3.2 Research purpose

The purpose of research is core to the whole research process; it is a reason and a guide for the project. Research purposes can fall broadly into three groups - exploratory, descriptive and explanatory (Saunders et al, 2009). These groups differ in the level of investigation undertaken by the researcher as well as in the level of elaboration of the subject by previous researchers.

Newman et al. (2003) proposed a typology of social research purposes (Table 7.7). These categories do not represent an exhaustive list of possible research purposes, they provide a framework for the researchers to clarify the direction of their study. Application of the above typology, alongside Saunders et al.’s (2009) classification of research purposes, can deepen the insight of the study. Saunders et al. (2009) proposed three types of the research purposes – exploratory, descriptive and explanatory.

Table 7.7: Typology of purposes in social research

No	Type of purpose	Description
1.	Predict	build general laws
2.	Add to the knowledge base	confirm findings; replicate others' work; reinterpret previously collected data; clarify structural and ideological connections between important social processes; strength the knowledge base.
3.	Have a personal, social, institutional, and/or organisational impact	deconstruct/reconstruct power structures; reconcile discrepancies; refute claims; set priorities; resist authority; influence change; promote change; promote questioning; improve practice; change structures; set policy.
4.	Measure change	measure consequences of practice; test treatment effects; measure outcomes.
5.	Understand complex phenomena	understand phenomena; understand culture; understand change; understand people.
6.	Test new ideas	test innovations; test hypotheses; test new ideas; test new solutions.
7.	Generate new ideas	explore phenomena; generate hypotheses; generate theory; uncover culture; reveal culture.
8.	Examine the past	study of historical origins of current social dynamics, patterns and problems; interpret and reinterpret the history of social life

An exploratory study aims to discover the current state of the phenomena and seek new insights. Exploration conceptually fits under the inductive approach, where the emphasis is on actual discovery by obtaining 'live' data in the absence of theoretical prejudice. The main ways of conducting exploratory research include a search of the literature, interviewing experts in the subject and conducting focus group interviews (Saunders et al., 2009). Gaining familiarity with the subject is the most important step of exploratory research in order to move toward more robust investigation at a later stage. As the research progresses, the initial broad focus narrows and becomes more precise. This allows a lot of flexibility and the potential for a change in the direction of research as new data and insights occur. However, these advantages are impeded by more risk - uncertainty of outcomes after substantial investments of efforts and time.

The aim of descriptive research is to describe the situation or “portray an accurate profile of persons, event or situations” (Robson, 2002, p.59). Surveys are usually used as a tool for collecting descriptive data. The knowledge about the phenomena is required prior to pursuing a descriptive project. In this sense, an exploratory study can create a good base for descriptive research. However, similarly to exploration, description might be just another stage in discovering phenomena; it creates the potential to synthesise and evaluate the information gained and proceed to the descripto-explanatory level of study.

Explanatory research follows on from descriptive research. It goes beyond describing phenomenon and seeks to explain it, usually in the form of establishing causal relationships. Explaining causal relationships relates explanatory research to the deductive approach. However, drawing conclusions and setting the theoretical frameworks for explanation of the phenomena may be a final stage of inductive research when the theory is created. This demonstrates that given classification of research purposes – exploratory, descriptive, and explanatory - is a hierarchy of depth and robustness of study depending on the subject area and research emphasis. Robson (2002) notes that the research might have more than one purpose as the enquiry may change over time.

The main research purposes of the current study are exploratory and descriptive. Firstly, it aims to add to the service quality knowledge base by investigating frequent customers' perceptions of service quality; secondly, it seeks to predict the impact of perceived service quality in the physical fitness context. Following the nature of deductive theoretical drive, it explores the relationship between areas of perceived service quality and overall customer satisfaction. Also, for the purpose of description it measures the importance, performance and impact of perceived service quality.

7.3.3 Research strategy

When deciding on a research strategy, it is important to understand which would be the best match for the study's philosophy and its objectives. Due to the differences between philosophical paradigms, many authors (Lincoln and Guba, 1985; Brewer and Hunter, 1989; Danziger, 1990; Denzin and Lincoln, 1998; Silverman, 1999) have drawn an implicit line between traditions of research design, namely quantitative and qualitative methods (Table 7.8).

The debate between these two areas of research design is sometimes called the qualitative-quantitative debate (Reichardt and Rallis, 1994). Bergman (2008) notes that it is hard to identify the origins of the idea that qualitative and quantitative methods belong to fundamentally different approaches to research and that it is the best to understand them as separate paradigms (Guba and Lincoln, 1994). Quantitative methods are referred to as being related to the traditional positivist paradigm, with roots in the works of Comte, Mill, Newton and Locke (Smith, 1983). Qualitative methods have grown from the constructivist (Lincoln and Guba, 1985), interpretivist (Smith, 1983) and post-positivist (Quantz, 1992) philosophical perspectives. The differentiation between quantitative and qualitative designs are drawn on

the following criteria: the nature of reality; the relationship between the knower and the known; the role of values in the research; the approach to theory; the cause-effect relations in research; the role of the research context; the type of research samples; the methods employed; and the type of research data (Firestone, 1987; Guba and Lincoln, 1988; McCracken, 1988; Creswell, 2003; Bergman, 2008).

Table 7.8: Quantitative versus qualitative approach

		Quantitative	Qualitative
Philosophical assumptions	Nature of reality (ontology)	Reality is objective and singular, separate from the researcher	Reality is constructed, multiple (constructed), or nonexistent
	The knower and the known (epistemology)	Possibility and necessity of separating the knower from the known	Interdependence between the knower and the known
	Role of values (axiology)	Value-free research	Value-laden and biased research
Methodological assumptions	Approach to theory	Deductive research via falsifiable hypotheses and formal hypothesis testing	Inductive, exploratory research approaches
	Cause-effect relations in research	The possibility to distinguish between causes and effects	Mutual simultaneous shaping of factors
	Role of research context	Generalisation of findings beyond the contextual limits	The centrality of the context to the research process and findings, findings are context-bound
	Type of research samples	Universal, representative samples	Small, non-representative samples
	Research strategies	Experimental design, survey	Phenomenology, ethnography, grounded theory case study
	Methods	Closed-ended questions, predetermined approaches	Open-ended questions, emerging approaches
	Type of data	Numeric data	Text or image data

Source: adapted from Creswell (1994; 2003) and Bergman (2008)

The division in the set criteria between the two approaches represents a traditional way of differentiating quantitative and qualitative approaches to research. The criteria are divided into two groups – philosophical assumptions and methodological assumptions, where philosophical assumptions incorporate ontological, epistemological and axiological perspectives, and methodological assumptions reflect on the practical issues of the research process. Creswell (1994) argues that “it is important to understand these assumptions because they will provide direction for designing all phases of a research study” (p.4). However, Bergman (2008) makes a counterargument with examples that in both quantitative and qualitative approaches the ontological and epistemological proposition is often inconsistent with research applications.

Qualitative research is often based on interpretivist paradigms and it views reality as constructed, multiple or even non-existent. Saunders et al. (2009) identified several main strategies for qualitative research, namely ethnography; grounded theory; case study; phenomenological research and storytelling.

The research would employ ethnography when it aims to explain the social world of the research subjects from their perspective (Saunders et al., 2009). It studies a cultural group in a natural setting over a prolonged period of time with the collection of observational data (Creswell, 1994). Ethnography has its roots in the inductive approach and it attempts to explain the events from the pure experience. It is a very time consuming strategy as the primary aim is to investigate the social world as thoroughly as possible. As new information emerges, the research process is expected/required to be responsive to change, and flexible to allow for the development of new patterns. Grounded theory is another strategy belonging to both inductive and deductive approaches (Collis and Hussey, 2003), with the aim of predicting and explaining behaviour through the building of theory (Goulding, 2002). Development of the theory has no predefined theoretical framework and begins with observational data. Initial data lead to predictions that are tested in further observations; multiple stages of data collection are involved. In grounded theory, there is a constant comparison of data with emerging categories and theoretical sampling of different groups in order to maximise the similarities and differences in the information (Creswell, 2003).

Case study is defined as “a strategy for doing research which involves an empirical investigation of a particular contemporary phenomenon within its real life context using multiple sources of evidence” (Robson, 2002, p.178). In the framework of explanatory and exploratory research the researcher collects information via a variety of data collection methods over a period of time (Stake, 1995). The context plays an important role in case studies as it is interlaced with the phenomenon under investigation and inseparable from it (Yin, 2003). Phenomenological research is the strategy with the aim of examining human experiences through the people under study, giving detailed descriptions of these experiences (Creswell, 2003). Phenomenology is referred to as both philosophy and method, and it involves an extensive and prolonged study of a small number of subjects in order to develop patterns of meaning. The philosophical aspect in the phenomenology is that the researcher can put aside his/her own experiences in order to understand the experiences of the subjects. Another strategy, narrative research, or storytelling, is used to study the lives of individuals in order to gain insight into the way human beings understand and enact their lives through stories (Sandelowski, 1991). Kearney (2002) argues that there is recognition that existence is

inherently storied: “Life is pregnant with stories” (p. 130). The researcher asks one or more individuals to tell stories about their lives. Then the researcher retells or restories the information from the subjects under study into narrative chronology (Creswell, 2003). Trust in both the story and the storyteller form the foundation for narrative research as a research strategy: “research is not ultimately about interpretation but about faith” (Hendry, 2007, p. 495).

Unlike qualitative research, quantitative studies are grounded in a positivistic worldview where reality is objective and separate from the researcher. Experiment is a form of research that emerged from natural sciences and its purpose is to establish causal links and to study whether a change in one independent variable produces a change in another dependent variable (Hakim, 2000). Exploratory and explanatory types of research are common in employing experiments to answer questions of ‘how’ and ‘why’ (Saunders et al., 2009). Experiments could be true experiments when subjects under treatment condition are assigned randomly, or they could be quasi-experiments when they are designed in a non-randomised manner (Keppel, 1991). Experiment typically involves the following stages (Saunders et al., 2009): 1) definition of a theoretical hypothesis; 2) selection of samples of individuals from known populations; 3) random allocation of samples to different experimental conditions, the experimental group and the control group; 4) introduction of planned intervention or manipulation to one or more of the variables; 5) measurement on a small number of dependent variables; 6) control of all other variables.

A survey strategy is associated with exploratory and descriptive research and the deductive approach. It aims to answer who, what, where, how much and how many questions (Saunders et al., 2009). Surveys use questionnaires, structured interviews or structured observations for data collection and intend to make generalisations from a sample to a population (Creswell, 2003). One of the main advantages of surveys is that they allow the collection of a large amount of data in an economical way. This data can be used for analysis of cause-effect relationships between variables and to produce models. The survey strategy brings more control and structure to the data collection, however, the representativeness of the survey sample should be ensured (Saunders et al., 2009).

This study is of quantitative nature and it employs survey strategy through the use of the online customer questionnaire (Table 7.9). This method enables deductive logic of the research in order to measure the importance and performance of service quality elements, and

analysis of the relationship between these elements, frequency of attendance and customer satisfaction.

Table 7.9: Quantitative strategy in this study

		Description
Philosophical assumptions	Ontology	Reality is a concrete process and a contextualised field of information; separate from the researcher
	Epistemology	Construction of a positivist science, development of standardised knowledge about customers' SQ perceptions
	Axiology	Value-free research
Methodological assumptions	Approach to theory	Deductive research with no formal hypothesis testing
	Cause-effect relations in research	Frequency of attendance, service quality, satisfaction
	Role of research context	Generalisation of findings for sports centres in the public sector
	Type of research sample	Representative sample of 4722 customers
	Research strategy	Survey
	Methods	Online questionnaire Closed-ended and open-ended questions
	Type of data	Numerical data, with additional text data

The quality and rigour of social research depends on selecting the research tools that allow the best match between the research objectives set and the research methods employed (Ritchie et al., 2013; Saunders, Lewis and Thornhill, 2012). This mono-method quantitative study allows for achievement of the research objectives through the utilisation of quantitative techniques, as shown in Table 7.10.

Table 7.10: Study objectives within quantitative mono-method study

No	Study objective	Objective in quantitative terms
1	to investigate frequent customers' perceptions of service quality by using the customer satisfaction survey tool in public sports centres;	Measurement of perception scores (performance and importance of SQ attributes)
2	to compare quality perceptions between two groups of frequent users - users of the fitness suites and users of fitness classes;	Quantitative comparison of scores
3	to identify if frequent use of one area contributes to the improvement in the customers' perception scores in another;	Comparison of mean scores
4	to explore the relationship between areas of perceived service quality and overall customer satisfaction in the case of frequent users;	Explanation of association

Quantitative research design allows the study to use the data in numerical form and this information is analysed using quantitative data analysis techniques. It should be noted that use of a mono-method does not intrinsically present a limitation; it depends on how well it allows the research problem and the research objectives to be addressed.

7.4 Research method: quantitative mono-method design

7.4.1 Population and sampling technique

Data was collected from the users of fourteen public sports centres in Northern England, which are managed by the same trust - Kirklees Active Leisure (KAL). KAL is the charitable trust which manages fourteen leisure facilities (nine of which are with swimming pools) on behalf of Kirklees Council (KAL Leisure Centres, 2017). Since 2014 KAL has been a member of The Institute of Customer Service (ICS) which is an independent not for profit professional membership body. The purpose of ICS is to help organisations strengthen their business performance by improving their customers' experiences and to provide a platform for networking and sharing best practice. By becoming a member of ICS, KAL has made a commitment to improving the quality of their customer service and has become one of three sports and fitness centres (the other two are Edinburgh Leisure and Virgin Active) which participate in the UK Customer Satisfaction Index (UKCSI) survey run by ICS. UKCSI is a nationally comparable measure of customer satisfaction; KAL was chosen as participating organisation for this study as it is one of few organisations in the UK fitness industry that contributes to UKCSI. A further factor for choosing KAL was the proximity of the organisation to the researcher's location.

The study aimed to measure perceptions of fitness suites and fitness classes amongst frequent users of public sports centres. Thus, the population of this study involves regular member customers who have been attending a sports centre over past three month prior to data collection. Frequency of attendance was defined by Ferrand et al. (2010) as "the average number of visits a customer makes to the (fitness) club each week" (p.90). Thus, in the context of this study regularity, or frequency, was defined in terms of a self-reported number of visits to fitness suites and/or fitness classes per week. The target population of the study included member customers who reported that they attended a fitness suite and/or fitness class in a sports centre at least once a week. This is in line with Jekauc et al.'s (2015) study which indicated that in the period of 20 weeks regular attenders exercised on average 1.55 times in the first week with no significant change in participation rate over the next 19 weeks,

indicating that they maintained their physical activity at a comparable level. Thus, users of sports centres were included in the study on the basis of following criteria:

1) being a member; 2) attendance at fitness suite and/or fitness classes over the past three months prior to data collection; 3) regular attendance: once a week or more frequently (self-reported).

A random sampling technique was used to select individual respondents for the study. Appendix C presents the breakdown of population in Kirklees District according to sports market segments. After filtering the database according to the first two criteria (possession of membership and attendance over the past three month), the selection of 9444 customers was randomised by the first letter of their surname and half of the original selection (i.e. 4722) was included in the sample (Table 7.11).

Table 7.11: Sampling frame

Total number of KAL customers with membership	Customers who attended in past 3 months	Selection included in sample (50%)
15 235	9444	4722

As frequency of attendance was a self-reported measure, the last stage of respondent selection in line with the third criterion (i.e. regular attendance) was only possible to implement after the survey had been completed by the respondents.

7.4.2 Development of the model

A questionnaire developed by Ko and Pastore (2005) for the Scale of Service Quality in Recreational Sport (SSQRS) was used as a basis for this study (Table 7.12). Previously developed scales differed in thoroughness of methodology adopted; amount of the qualitative research employed; and consideration of the findings in earlier research. The model by Brady and Cronin (2001) has been utilised in several studies of service quality in fitness activity (e.g. Alexandris et al., 2004; Ko and Pastore, 2005).

This model was recommended by Martinez and Martinez (2010) as “an excellent basis for proposing the attributes of service quality that can be measured” (p. 110). However, there are contradictions that have not been addressed (such as the direction of influence between levels of quality). To overcome these issues, Martinez and Martinez (2010) suggested using Brady

and Cronin's (2001) model alongside the identification of the dimensions of service quality in the context of a particular industry, which was implemented by Ko and Pastore (2005) for recreational sport. Another model (SQAS) developed by Lam et al. (2005) specifically addresses the health-fitness setting and presents a strong basis (from the methodological point of view) for measuring perceived service quality. Yet, Lam et al. (2005) recommended that other researchers should re-examine the SQAS using different samples to study factor structure further and potentially to compare the results with another similar scale. Also, Lam et al.'s (2005) scale does not offer the measurement of overall perceived service quality and does not include an inter-client interaction aspect nor the outcome quality proposed by several other service quality models (Polyakova and Mirza, 2016).

Table 7.12: Hierarchical Model of Service Quality (Ko and Pastore, 2005)

Dimensions	Sub-dimensions	Items
Programme Quality	Range of programme	variety; wide range; popularity of programmes; attractiveness (personal preference)
	Operating time	convenience of opening times; programme times are convenient; programmes at several different times
	Information	up-to-date on events and activities; easy contact by email; website; easy to obtain: easy to contact by phone
Interaction Quality	Client Employee Interaction	staff are: knowledgeable about their jobs; friendly; willing to help individuals; take action when problems occur; competent; handle problems promptly and satisfactorily; recognise and deal effectively with special needs of customers
	Inter-Client Interaction	positive impact on service perception; impressed with other patrons; follow rules and regulations; leave good impression of service
Outcome Quality	Physical Change	increase in physical ability; help in increased physical ability; increased physical fitness level; skill level; skill performance
	Valence	feel good; feel to have got what I wanted; feel good when I leave; favourable outcome
	Sociability	many opportunities for interaction; sense of family; made many friends; enjoyed social interaction
Physical Environment Quality	Ambience	excellent ambience; what I am looking for; facility clean and well maintained; consistently impressed with facility's atmosphere; enjoy the atmosphere
	Design	good design; layout serves the purposes/needs; aesthetically attractive; impressed with the design; safe and comfortable
	Equipment	up-to-date; variety of equipment; good usable condition

Although the SQAS model by Lam et al. (2005) had been through the process of rigorous methodological verification, the model by Ko and Pastore (2005) was chosen as the most appropriate for this study due to several factors. First of all, it provides consolidation of

concepts which build on general service quality models (Brady and Cronin, 2001; Dahholkar, Thorpe and Rentz, 1996); secondly, it is contextualised to recreational sport; and thirdly, it offers a tool for measurement of outcome as a part of perceived service quality. The outcome dimension of quality is closely linked to the value/quality co-creation process and its inclusion to the model is aligned with the 'service-dominant' logic. In the case of the fitness context, outcome is related to the physical and psychological benefits of exercise, social interaction and general feelings towards the service (Ko and Pastore, 2005; Lagrosen and Lagrosen 2007).

The original model by Ko and Pastore (2005) included four primary dimensions defined by several corresponding sub-dimensions: 1) programme quality - range of programme, operating time, and information, 2) interaction quality - client-employee integration and inter-client interaction, 3) outcome quality - physical change, valence, and sociability, and 4) environment quality - ambient condition, design and equipment. The questionnaire instrument for Ko and Pastore's (2005) model had a total of 49 items (questions).

The main purpose of the study was to explore service quality perceptions of customers in two contexts - fitness suites and fitness classes. In order to adapt Ko and Pastore's (2005) existing questionnaire to those contexts, a series of consultations with KAL business development managers took place. The aim of those consultations was to reach consensus between KAL business goals and the objective of the research and as a result to develop the tool most be relevant and appropriate for use in their business operating environment. In order to achieve this, it was necessary to take the following factors into account: 1) relevance of questions to each of the two contexts for fitness suites and fitness classes (i.e. potential of questions to obtain new exclusive information about each of the two contexts rather than refer to the overall context of a sports centre); 2) appropriateness of the questions related to specific areas of KAL business operation (i.e. consideration of the business areas of sensitive nature and ability of KAL to follow up customers' feedback; 3) length of the questionnaire (Table 7.13).

As a result of applying the above criteria, the dimension of Programme quality was excluded from the model, with following sub-dimensions: information, operating time and range of programme. On the basis of relevance, questions related to information item (Program Quality) were excluded from the questionnaire. Information about fitness suites and fitness classes was provided by KAL through the same channels and in a similar manner which classifies information provision as part of wider sports centre operations rather than exclusive

characteristics of fitness areas that could have an immediate impact on customer perceptions in the two contexts.

Table 7.13: Reasons for inclusion/exclusion of items in the model

Sub-dimension	Item(s) excluded	Reason for exclusion		
		Relevance to fitness suite and fitness classes	Appropriateness to the business/customer environment	Length of the questionnaire/ Semantic saturation
Range of programme	all			
Operating time	all			
Information	all			
Design	all			
Client Employee Interaction	take action when problem occurs; competent; handle problems promptly and satisfactorily; recognize and deal effectively with special needs of customers			Replaced with: knowledgeable and professional fitness staff; friendly staff; staff who are always willing to help
Inter-Client Interaction	impressed with other patrons; leave good impression of service			Replaced with: other customers having a positive impact on the experience
Physical change/ Benefits	increased physical ability; help with increased physical ability; skill performance			Replaced with: improving personal fitness; increasing fitness level; psychological benefits; increasing skill level
Valence	feel good; favourable outcome			Replaced with: to achieve what I want; to have a good feeling
Sociability	sense of family; enjoyed social interaction			

Ambience	excellent ambience; what I am looking for; consistently impressed with facility's atmosphere			Replaced with: enjoying the atmosphere
Equipment	up-to-date			

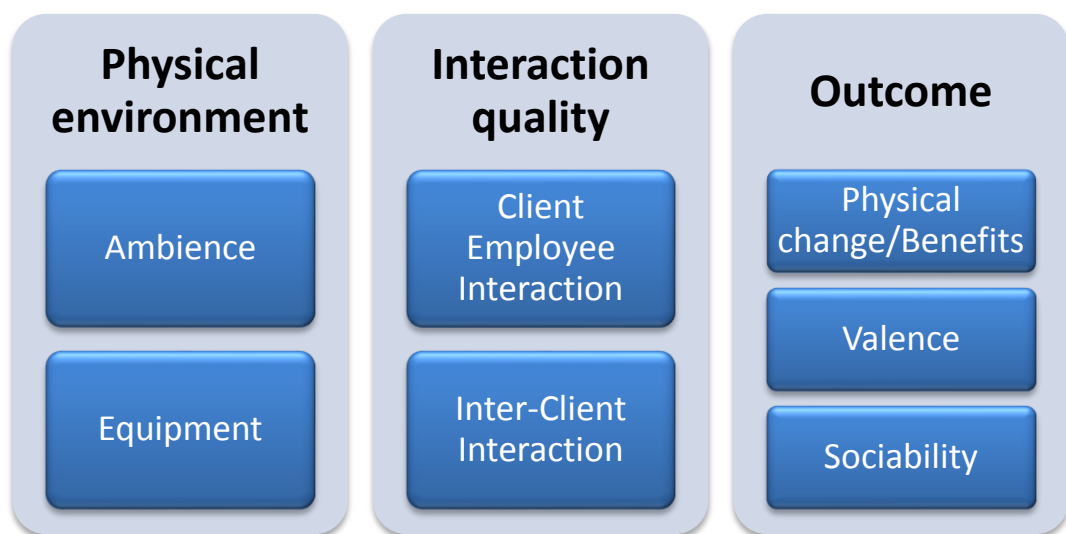
Operating time questions (Program Quality) were excluded from the questionnaire as they represent a part of wider sports centre operations; also the managers did not have the resources to follow up the customers' feedback in this area and, therefore, preferred to omit those questions. Questions about physical change (Outcome Quality) were extended to questions on both physical and psychological benefits (Lagrosen and Lagrosen, 2007). Having originated from the context of recreational sport, items under the dimension Range of programme (Programme Quality) were not applicable to both fitness suites and fitness classes' contexts; they also had items (e.g. variety and wide range) that could cause semantic saturation (i.e. repetition) when used four times: for importance and performance in each of the contexts. Similarly, to avoid repetition, questions about the design of the facility (Physical Environment Quality) were excluded from the fitness-specific questionnaire, yet customers were asked design related questions about the overall context of a sports centre as it was the same physical environment/facility for fitness suite and fitness classes in terms of the design of a sports centre building.

Taking into account the above reasons for exclusion of specific items in the questionnaire, the length of the questionnaire was an important factor to consider. In order to minimise additional marketing/survey communications to KAL's customers, distribution of the online questionnaire had to strategically coincide with KAL's annual customer satisfaction survey. The questionnaire design had to allow customers to complete the survey in 10-15 minutes to maximise the response rate. This timing could not have been achieved with the use of the original questionnaire in Ko and Pastore's (2005) model as it had a total of 49 items (questions). Inclusion of performance-importance questions for each of the items meant doubling the number of questions for each of the two areas (i.e. fitness suites and fitness classes) and quadrupling the number of questions for the whole questionnaire which would cause information overload to customers and increase the possibility of incomplete questionnaires.

After consultations with KAL, the adapted model (specifically focused on the context of fitness suites and fitness classes) included three dimensions - Physical Environment Quality,

Interaction Quality and Outcome Quality - and seven sub-dimensions (Figure 7.7 and Table 7.14). The new model provided a set of comparable dimensions, adequately related to both contexts of fitness suites and fitness classes. It also matched to the requirements of KAL in terms of managing customer expectations as well as eliminated semantic saturation which allowed designing the questionnaire of a reasonable length. As a result, the dimension of Programme Quality was not included in the final model due to all of its sub-dimensions (i.e. information, operating time and range of programme) not matching one or more of the three inclusion criteria, as explained in detail above.

Figure 7.7: Hierarchical Model of Service Quality in the context of the fitness industry



The final model included 17 items for each of the two contexts (Table 7.14), i.e. 17 items for fitness suites and 17 items for the fitness classes. This model was used to develop a questionnaire tool for measuring perceptions of fitness suites and fitness classes amongst frequent users; the structure of the questionnaire is described in the following section.

Table 7.14: Adapted Hierarchical Model of Service Quality for Fitness Suites and Fitness Classes

Dimensions	Sub-dimensions	Items
Interaction Quality	Client Employee Interaction	knowledgeable and professional fitness staff; friendly staff; staff who are always willing to help
	Inter-Client Interaction	other customers having a positive impact on the experience; other customers' respect for the rules and regulations
Outcome Quality	Physical Change/Benefits	improving personal fitness; increasing fitness level; psychological benefits; increasing skill level
	Valence	to achieve what I want; to have a good feeling
	Sociability	opportunities for social interaction; making friends
Physical Environment Quality	Ambience	workout area is clean and well maintained; enjoying the atmosphere
	Equipment	variety of fitness equipment; condition of the equipment

7.4.3 Survey design

The online questionnaire was designed using SIRC Survey platform (<https://www.sircsurveys.com/>) - an online survey tool for the Sport Industry Research Centre at Sheffield Hallam University. SIRC Survey platform is dedicated to professional data collection in the area of sport and physical activity for the research purposes. This ensured professional quality of the survey design and clear presentation of information to the respondents.

7.4.3.1 Structure of the questionnaire

The questionnaire consisted of four parts related to the respondents' profile; their evaluation of importance and performance of service quality in most frequently attended KAL sports centre; overall satisfaction with the service; perceptions of value for money; and likelihood to recommend others to use the sports centre. The full logic of the survey is presented in Appendix D.

The first section included questions that aimed to identify a specific sports centre under KAL management that respondents use most often, their perceptions about the overall physical

environment of that centre and the frequency of usage of fitness suites and fitness classes in that particular centre.

The second section was designed to measure the customers' perceptions of frequent customers (those who use a sports centre at least once a week) about fitness suites and fitness classes. For this, a set of questions on 17 items from the adapted model (Table 7.14) was designed to measure performance and importance of service quality attributes in each of the two contexts (Table 7.15).

Table 7.15: Measures of service quality perceptions

Fitness suites		Fitness classes	
Performance	Importance	Performance	Importance
17 items	17 items	17 items	17 items

The literature showed that inclusion of the importance in measuring attitudes could help to identify performance of which services is more important to customers and this would assist management in proper allocation of resources (Crompton and MacKay, 1989). Oh and Parks (1997) expressed the view that the advocates of importance inclusion are driven by the conceptual and realistic role of importance of different attributes in human-decision processes, whereas their opponents focus on statistical and methodological efficiency. The set of questions related to performance of service quality attributes were asked using the 10-point Likert scale, with 'Strongly Disagree' as 1 and 'Strongly Agree' as 10. Another set of questions about the importance respondents assign to the attributes were also asked using 10-point Likert scale with 'Not Important at all' as 1 and 'Very important' as 10. The maximum possible number of questions (68) in this section was offered to the respondents who were frequent users of both fitness suites and fitness classes. In the case of respondents who were frequent users of either fitness suites or fitness classes, they were asked the relevant set of 34 questions related to either one area or the other.

The third section asked respondents questions about their general satisfaction with each of the two areas - fitness suites and fitness classes, using the 10-point Likert scale with 'Very poor' as 1 and 'Excellent' as 10. Also, this section included a question about one aspect that the sports centre could improve.

The fourth section included a question related to customers' perceptions of value for money in connection to the service they were receiving; a question about whether they felt to be a valued customer (10-point Likert scale, with 'Strongly Disagree' as 1 and 'Strongly Agree' as 10) was asked, including their explanation of what being treated as a valued customer means for them. This section also asked a Net Promoter Score (NPS) question about how likely respondents would be to recommend others to use the sports centre (11-point Likert scale, with 'Not likely at all' as 1 and 'Very likely' as 11). If the latter question had a score 5 or lower, additional open-ended question asked for the reasons why respondents were not likely to recommend the sports centre.

7.4.3.2 Ten-point Likert scale

Darbyshire and McDonald (2004) suggest that in the area of customer satisfaction research the best type of scale is a longer 10 or 11-point numeric scale, whereas other authors claim that there is no evidence for superiority of scales with a specific number of scale points over any other (e.g. Hartley, 2014). Some research examined the scales with an odd number of scale points against the scales with even number of points; the latter were found to force the respondents to make a choice by eliminating neutral mid-points (Garland, 1991). Nevertheless, more recent study by Edwards and Smith (2011) found that eliminating of a neutral response option does always result in respondents taking extreme stances on sensitive issues. Other studies looked to identify whether the number of options in the Likert scale influences the psychological distance (or perceived disparity) between categories, and they found that it did influence it in the case of the 7-point scale (Wakita et al, 2012). Indeed, the evidence showed that although a 7-point Likert scale can generate data that can be used as interval data with a lower measurement error and a higher precision when compared with the 5-point equal interval scale, the placement of the 7 points on the scale are symmetrical but not at equal distances (Munshi, 2014). Previous research also looked into whether the number of options on a scale affects the final data in terms of mean scores. It was found that a 5- or 7-point scale was likely to produce slightly higher mean scores relative to the highest possible attainable score, compared to that produced from a 10-point scale (Dawes, 2008).

There were several considerations when choosing a 10-point scale in this study: amount of flexibility for statistical analysis that can be achieved with a longer scale; no need for a mid-point on the scale due to the requirement of the client organisation; and ability of the respondents to understand the meaning of the scale (Darbyshire and McDonald, 2004). Another important requirement of the scale from the client organisation was its ability to

obtain comparable data - data that could be compared to the data collected through existing annual survey at KAL in previous years, which had 10-point scale for all of the questions with an exception of the question about customer referrals with 11 points.

7.4.4 Questionnaire administration

The questionnaire was piloted with 20 KAL members who were not included in the final sample. After the responses were received from the pilot stage and minor design amendments were finalised, data was collected through the online survey, which was opened for one month between mid-April and mid-May 2015. The online questionnaire was emailed as a link with a cover letter (Appendix E) to the 4722 customers included in the sample. The administration of the questionnaire included two stages: initial emails to all respondents in the sample, followed by one reminder email to those who had not responded after two weeks. All emails to the recipients in both stages were sent from an official KAL account which the researcher had no access to. Saunders et al. (2009) suggest that up to three follow-ups can increase the response rate. Yet, it should be noted that this study had restrictions imposed by the KAL marketing department on how frequently the respondents could be contacted during this study (i.e. only two points of contact with each respondent - one initial email and one reminder). This was due to the customer relations policy and the marketing communications schedule, which aimed to protect customers from overload of communication from KAL and prevent a potential danger of them devaluing KAL marketing communication in future.

According to Saunders et al. (2009), a good response depends on how motivated the recipients are to complete the questionnaire and send it back. In order to raise the response rate, a monetary incentive was used for this survey: the prize draw consisted of four prizes with the value of £100, £50 and £25(x2) correspondingly. The winners were chosen from respondents by random number generator and the money was paid in cash from KAL's office on personal collection.

Most of the responses were received within 24 hours of sending the initial email and within 24 hours of the reminder. The response rate was 14.4% (680 respondents) which included frequent and infrequent users of fitness classes and fitness suites. Table 7.16 shows the total number of responses from frequent users (total 522 users) from two areas - fitness suites and fitness classes, however, they are not mutually exclusive groups and there is some overlap between participants in fitness suites and fitness classes.

Table 7.16: Questionnaire response rate

Response rate, %	Number of customers who responded to the survey	Frequent users Fitness suites	Frequent users Fitness classes	Frequent users Fitness classes and Fitness suites, Total
14.4	680	349	312	522

7.4.5 Ethical considerations

Prior to undertaking the data collection for this research, approval was obtained from the Ethics Committee at the Business School, the University of Huddersfield (UK), which included review and approval of the aims and objectives of the study; a brief overview of the research methodology; access to participants; data collection and storage; informed consent; confidentiality and anonymity issues as well as potential harm. According to Saunders et al. (2009), ethical issues can arise during various stages of research, namely during design and gaining access, data collection, data processing and storage as well as analysis and reporting. Therefore, it was ensured that ethical aspects were considered at each of those stages in the study.

An invitation to participate in the survey was sent to KAL members of 16 years old or over, via an email containing the link to the survey. The invitation explained the purpose of the research and the role of customers. By participating in the survey, individuals agreed to be entered in the prize draw and gave their consent to be contacted by KAL in case they won. Therefore, returning a completed survey by pressing the 'Submit' button at the end highlighted the act of informed consent. After the close of the survey, the names of four winners of the prize draw were passed over the phone to KAL who in turn contacted winners in order to arrange delivery of the prize.

Participation in the survey was voluntary, and according to the informed consent document the participants could withdraw from the research at any point, withdrawing any data they had provided. Data withdrawal was possible until the data was anonymised for analysis (i.e. until data cleaning stage). Also, individuals could terminate their completion of the questionnaire at any point in the process by simply closing the window of the browser. The participants were provided with an email address for any queries related to the survey. Although fitness and health might be a sensitive area, the participants were only asked questions about their

opinions on the services that were provided by KAL. The survey did not collect any information about their personal health or fitness.

According to the Data Sharing Agreement between KAL (Data Controller) and the researcher (Data Processor), signed before the data collection, the personal details are to be used only until the research and any subsequent projects are concluded. The raw data collected was available in SAV format; it was anonymised during the data cleaning stage for analysis and interpretation, i.e. names and email addresses were removed from the dataset. The personal details attached to the raw data have been stored on a password protected, encrypted USB device and they are to be destroyed after PhD completion. No names or personal email addresses are present in any reports.

7.4.6 Data analysis

Table 7.17 shows the summary of the statistical analysis in used the study, in Statistical Package for Social Sciences (SPSS) programme. It included such techniques as Independent t-test, Paired-samples t-test and Pearson correlation.

Table 7.17: Summary of statistical analysis

No	Study objective	Objective in quantitative terms	Analysis technique
1	to investigate frequent customers' perceptions of service quality in public sports centres by using a customer satisfaction survey tool;	Measurement of perception scores (performance and importance of SQ attributes)	Paired-samples t-test Pearson correlation
2	to compare quality perceptions between two groups of frequent users - users of the fitness suites and users of fitness classes;	Quantitative comparison of scores	Independent-samples t-test
3	to identify if frequent use of one area contributes to the improvement in the customers' perception scores in another;	Comparison of mean scores	Independent-samples t-test
4	to explore the relationship between areas of perceived service quality and overall customer satisfaction.	Explanation of association	Paired-samples t-test Pearson correlation

7.4.6.1 Independent-samples t-test

Independent-samples t-test is applied when differences between two unrelated groups in one or more variables need to be examined (Field, 2013). This test was used when comparing quality perceptions between two groups of frequent users - users of the fitness suites and users

of fitness classes. It was also applied to identify whether frequent use of one area contributes to the improvement in the customers' perception scores in another.

7.4.6.2 Paired-samples t-test

Paired-samples t-test is used when there are two experimental conditions and the same participants were assigned to both conditions (Field, 2013). This test was used in order to compare quality perceptions between two groups of frequent users of the fitness suites and fitness classes for each of the two groups of users. Also, it was applied in order to explore the relationship between areas of perceived service quality (on sub-dimension level) and overall customer satisfaction in the case of frequent users. While interpreting results from independent-samples t-test and paired-samples t-test, the maximum acceptable level of statistical significance was considered as $p < 0.05$.

7.4.6.3 Pearson correlation

Pearson correlation tests the relationship between two continuous variables, and Pearson's correlation coefficient (r) is a measure of the strength of the association between the two variables (Field, 2013). Pearson correlation was applied to performance and importance of service attributes, in order to discover whether frequent customers differentiate between these two concepts in the context of the survey. Also, Pearson correlation was used to explore relationships between the service quality dimensions and overall customer satisfaction in each of the contexts of fitness suites and fitness classes. Table 7.18 shows interpretations of the correlation coefficient that were used in the data analysis in this study:

Table 7.18: Interpreting a Correlation Coefficient

Size of the correlation (r)	Coefficient General Interpretation
0.8 to 1.0	Very strong relationship
0.6 to 0.8	Strong relationship
0.4 to 0.6	Moderate relationship
0.2 to 0.4	Weak relationship
0.0 to 0.2	Weak or no relationship

Source: Salkind (2013)

7.4.6.4 Statistical tests and objectives of the study

In order to investigate frequent customers' perceptions of service quality in public sports centres by using a customer satisfaction survey tool (*Objective One*), the study was

undertaken in two stages. Firstly, it measured the importance and performance of service quality items as perceived by frequent customers. For this, the performance-importance gaps were measured by calculating the difference between mean importance and performance scores, and then applying paired-samples t-test in order to identify statistical significance. Secondly, in order to explore whether frequent customers differentiate between the concepts of service attribute performance and service attribute importance, the Pearson correlation between performance and importance of service attributes was applied; this was done separately for the users of fitness suites and fitness classes.

Objective Two aimed to compare quality perceptions between two groups of frequent users of the fitness suites and fitness classes. For this, independent t-test was applied to the performance scores on the item level for each of the two groups of users.

Objective Three was set out to identify if frequent use of one area (i.e. fitness suites or fitness classes) contributes to the improvement in the customers' perception scores in another. This required identifying a) if frequent participation in fitness classes contributes to the improvement in the customers' perception scores for the fitness suites; and b) if frequent use of fitness suites contributes to the improvement in the customers' perception scores for the fitness classes. Independent t-test was applied to the performance scores on item level, separately to each area, i.e. a) comparison between scores of frequent users of fitness suites only and frequent users of both fitness suites and classes; and b) comparison between scores of frequent users of fitness classes only and frequent users of both fitness suites and classes.

Objective Four explored the relationship between areas of perceived service quality and overall customer satisfaction in the case of the frequent users. In order to achieve this, differences between total performance score for service quality areas (i.e. for service quality sub-dimensions) were calculated in two different ways, i.e. as straight average score (APS) and weighed performance scores (WPS) that take into account the importance of the attributes:

$$WPS_{sub-dimension Z} = \frac{P_{attribute 1} \times I_{attribute 1} + P_{attribute n} \times I_{attribute n}}{\sum_{i=1}^n I_{attribute i}}$$

Where $WPS_{sub-dimension A}$ - Weighted performance score for sub-dimension Z

$P_{attribute n}$ - Performance score for the attribute n

$I_{attribute\ n}$ - Importance score for the attribute n

n - a number of attributes in a sub-dimension

Averaging performance scores across multiple items to derive an overall sub-dimension performance score (i.e. APS) ignores the relative importance of the items to customers. Some items with high performance scores might be relatively unimportant whereas some more important items might have low performance scores. The WPS incorporates both perceived performance and importance aspects when calculating an overall sub-dimension score.

Paired sample t-test was applied to APS and WPS separately for fitness suites and fitness classes users. Also, to identify which of the service quality dimensions explains changes in overall customer satisfaction, Pearson correlation between WPS score for each service quality dimension and overall satisfaction was applied, separately for each of the two areas.

7.4.7 Validity and reliability

Validity generally refers to the evidence that a study answers the questions it aimed to answer or it measures what it set out to measure conceptually (Field, 2013). In this study, the validated model by Ko and Pastore (2005) was adapted for the context of the fitness suites and fitness classes. The development process of the model and the reasons for the adaptations that were made are clearly articulated in the Section 7.4.2. The survey designed on the basis of the adapted model went through a series of consultations with the KAL business development managers. This was to ensure it is fit for purpose and aligned with the policies and needs of the organisation. The IPA and gap analysis in the survey are supported with the methodology of National Benchmarking Service (NBS) used by Sport England. NBS is used for public sports and leisure centres, and it comprises of authoritative performance indicators and national benchmarks (Sport England, 2017). Gap analysis applied was also recommended for use in fitness and leisure industry (in public sports centres in particular), due to its acceptability among practitioners, its simplicity and tested validity (Liu et al. 2009).

Reliability refers to the reliability of the results obtained, i.e. the ability of a measure to produce consistent results when the same entities are measured under the same conditions (Field, 2013). To ensure that the data collection tool is reliable, the pilot study took place. As a result, the minor design and question formulation amendments were made before the questionnaire administration for main data collection. Such a pilot study ensures that the data

analysis could be replicated in further research. Also, a clear explanation was provided to the respondents of the survey as to what they needed to evaluate, i.e. what performance and what importance meant in the context of the study. Moreover, the statistical tests were used to identify whether the respondents differentiated between the concepts of service attribute performance and service attribute importance (Sections 8.4.3 and 8.5.3, Chapter 8).

The questionnaire for the study was developed on the basis of the model adapted from Ko and Pastore (2005). The adapted model included 17 items for each of the two contexts, i.e. 17 items for fitness suites and 17 items for the fitness classes. Those items formed seven sub-dimensions, namely: Client-employee interaction, Inter-client interaction, Benefits, Valence, Sociability, Ambience and Equipment. The reliability analysis was applied to each of the two groups - the users of fitness suites and participants of fitness classes (Table 7.19 and 7.20). The reliability coefficients were calculated for perceived performance and importance on the level of seven sub-dimensions. This is in line with Cronbach's (1951) suggestion that if the questionnaire has subscales, alpha should be applied separately to these subscales.

Table 7.19: Cronbach's alpha test for fitness suites (level of sub-dimensions)

Sub-dimension	Cronbach's alpha: Performance	Cronbach's alpha: Importance
Client-employee interaction	0.856	0.702
Inter-client interaction	0.555	0.555
Benefits	0.885	0.889
Valence	0.668	0.867
Sociability	0.871	0.965
Ambience	0.830	0.716
Equipment	0.812	0.866

Table 7.20: Cronbach's alpha test for fitness classes (level of sub-dimensions)

Sub-dimension	Cronbach's alpha: Performance	Cronbach's alpha: Importance
Client-employee interaction	0.925	0.940
Inter-client interaction	0.643	0.688
Benefits	0.879	0.861
Valence	0.639	0.781
Sociability	0.858	0.963
Ambience	0.746	0.714
Equipment	0.854	0.834

The results of the tests showed that most of the reliability coefficients for both groups are higher or very close to 0.70. According to Kline (1999), the generally accepted value of 0.80 is appropriate for cognitive tests and 0.70 for ability tests. However, when dealing with psychological constructs values below 0.70 can be expected due to the diversity of the

constructs being measured (e.g. alpha coefficients for Valence sub-dimension in both groups - 0.668 and 0.639). Unlike the other sub-dimensions, the coefficients for the performance and importance in sub-dimensions of Inter-client interaction had relatively lower values, across both groups. Cortina (1993) suggested that the value of alpha depends on the number of items in the scale, i.e. as the number of items in the scale increases, alpha will increase. The Inter-client interaction scale has two items, which is comparable to other sub-dimensions with two items; it means that its reduced reliability is not going to be significantly affected by the number of items. However, the items in this sub-dimension cover two aspects related to the other customers' positive impact on the experience and other customers' respecting rules and regulations. Both items are related to the behaviours of other customers; however the relative lack of consistency can be explained by the perceived ability of the respondents to actually interact in the situations when the rules and regulations are not followed by other customers.

7.5 Summary

This Chapter aimed to explain the methodological choices made by the researcher, which included the philosophical position; logic of the research; strategy; data collection and data analysis methods. The choices were informed by the 'Research onion' model introduced by Saunders et al. (2009).

In order to address the gap in the previous literature in terms of measuring service quality in two separate contexts - fitness suites and fitness classes, the study considered research aims and objectives against the resources available for this study when designing the methodology. The ontological and epistemological underpinnings of the research were explained. In addition to this, critical discussion on the philosophical issues with existing service quality studies was offered, and a choice of a positivistic paradigm justified. This chapter evaluated alternative research strategies for this study and demonstrated how the objectives of the study fit within quantitative mono-method research design. The series of consultations with KAL business development managers took place with the aim of reaching consensus between KAL's business goals and the objective of the research. Subsequently, this assisted the development of the instrument which is relevant and appropriate for use in the business operating environment. A detailed explanation of the model development process was presented, alongside considerations for the survey design, questionnaire administration and ethical issues. Statistical analysis was completed in SPSS, and this chapter establishes a clear link between the study objectives and the statistical tests used to achieve them. Finally, limitations arising from the research design chosen were considered.

CHAPTER EIGHT – RESULTS

8.1 Introduction

This Chapter presents the empirical results and findings of this study. Firstly, each respondent's profile was described in terms of age; gender; KAL facility; frequency of usage of fitness suite and fitness classes (Section 8.2). The Chapter focuses on the results received from frequent users of fitness suites and fitness classes (i.e. attending fitness suites or participating in classes at least once a week), therefore, the profile of frequent users was detailed in the separate section (Section 8.3). Sections 8.4 and 8.5 are dedicated to an analysis of service quality perceptions in fitness suites and fitness classes respectively. This analysis involves evaluation of service quality attributes through importance-performance analysis (IPA); analysis of gaps between performance and importance scores in quality attributes; investigating differences between more frequent users (i.e. three times a week or more) and less frequent users (i.e. once or twice a week) on the level of quality attributes and sub-dimensions. Section 8.6 presents a comparative evaluation of service quality perceptions in fitness suites and fitness classes which combines a comparison of attribute and sub-dimension performance and analysis of gaps on different levels. Finally, Section 8.7 explores the relationship between perceived service quality sub-dimensions and overall customer satisfaction for each of two contexts - fitness suites and fitness classes. The Chapter finishes with the summary of the key findings. Full descriptive results of the survey are presented in Appendix F.

8.2 Respondents' profiles

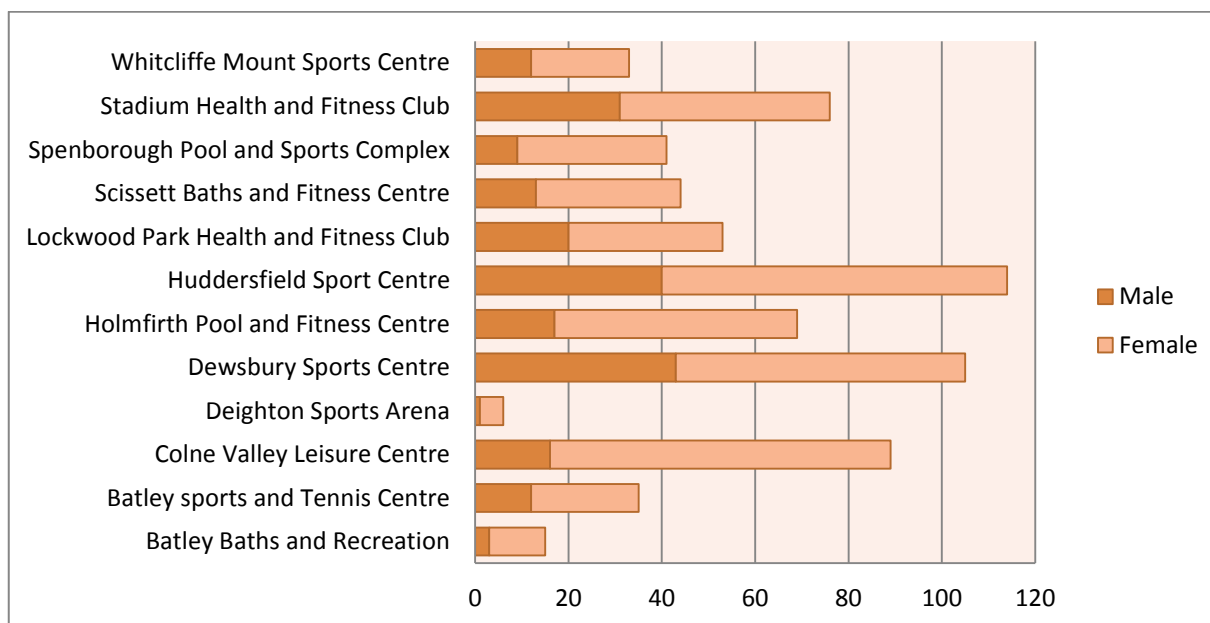
The respondents were the users of twelve public sports centres managed by Kirklees Active Leisure (KAL) who had attended a sports centre within the past three months (12 weeks). The total sample of 680 respondents comprised of 217 males (32%) and 463 were females (68%). Table 8.1 shows the breakdown of female and males respondents across facilities.

The largest group of responses came from Huddersfield Sports Centre (n=114, 16.77%), Dewsbury Sports Centre (n=105, 15.44%) and Colne Valley Leisure Centre (n=89, 13.09%). Colne Valley Leisure Centre also had the largest proportion of female respondents (82%) across these three facilities (Figure 8.1).

Table 8.1: Gender of respondents, by KAL facility

Facility	Gender		Total
	Male	Female	
Batley Baths and Recreation	3	12	15
Batley sports and Tennis Centre	12	23	35
Colne Valley Leisure Centre	16	73	89
Deighton Sports Arena	1	5	6
Dewsbury Sports Centre	43	62	105
Holmfirth Pool and Fitness Centre	17	52	69
Huddersfield Sports Centre	40	74	114
Lockwood Park Health and Fitness Club	20	33	53
Scissett Baths and Fitness Centre	13	31	44
Spensorough Pool and Sports Complex	9	32	41
Stadium Health and Fitness Club	31	45	76
Whitcliffe Mount Sports Centre	12	21	33
Total	217	463	680

Figure 8.1: Distribution of male and female respondents, by KAL facility



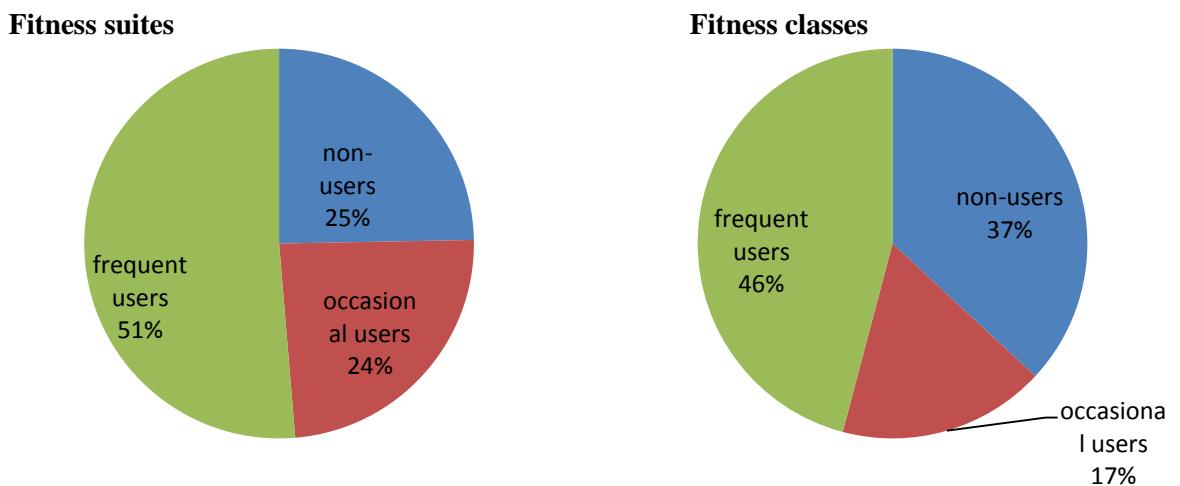
The mean age across 12 facilities was 44.19 years (n=680). Table 8.2 shows mean ages for individual facilities. The respondents from Whitcliffe Mount Sports Centre had the highest mean age of 52.6 years, whereas the lowest mean age of 30.8 was of Deighton Sports Arena users.

Table 8.2: Age of respondents, by KAL facility

Facility	Mean age	Total responses
Batley Baths and Recreation	50.3	15
Batley sports and Tennis Centre	51.3	35
Colne Valley Leisure Centre	44.3	89
Deighton Sports Arena	30.8	6
Dewsbury Sports Centre	41.4	105
Holmfirth Pool and Fitness Centre	51.0	69
Huddersfield Sports Centre	36.9	114
Lockwood Park Health and Fitness Club	39.9	53
Scissett Baths and Fitness Centre	44.2	44
Spenborough Pool and Sports Complex	45.3	41
Stadium Health and Fitness Club	48.0	76
Whitcliffe Mount Sports Centre	52.6	33
Total	44.19	680

A total sample of 680 respondents comprised of 24.7% respondents who had never used fitness suite and 37% respondents who had never participated in fitness classes (Figure 8.2). Yet, over half of all respondents (51%) were frequent users of a fitness suite and almost a half of respondents (46%) were frequent participants in fitness classes.

Figure 8.2: Users of fitness suites and fitness classes



Tables 8.3 and 8.4 below provide a detailed breakdown of fitness suite usage and participation in fitness classes amongst all respondents (n=680).

Table 8.3: Reported frequency of usage of fitness suite

Frequency of usage	Number of respondents	%
never	168	24.7
a few times a year	104	15.3
monthly	59	8.7
once or twice a week	190	27.9
three or more times a week	159	23.4
Total	680	100

Reported frequency of usage of fitness suite showed responses from the three largest groups - the respondents who used a fitness suite once or twice a week (27.9%) and three or more times a week (23.4%) as well as those who reported to be non-users of a fitness suite (24.7%).

Table 8.4: Reported frequency of participation in fitness classes

Frequency of usage	Number of respondents	%
never	251	36.9
a few times a year	82	12.1
monthly	35	5.1
once or twice a week	185	27.2
three or more times a week	127	18.7
Total	680	100

Similarly, reported frequency of participation in fitness classes showed responses from the three largest groups - the respondents who participated in fitness classes once or twice a week (27.2%) and three or more times a week (18.7%) as well as those who never attended fitness classes (36.9%). The largest group of females (n=130) reported using a fitness suite once or twice a week, whereas the largest group of males (n=80) reported exercising at a fitness suite three or more times a week (Table 8.5).

Table 8.5: Gender and frequency of fitness suite usage

		Gender		Total
		Male	Female	
Use of fitness suites	never	51	117	168
	a few times a year	12	92	104
	monthly	14	45	59
	once or twice a week	60	130	190
	three or more times a week	80	79	159
	Total	217	463	680

The largest two groups of respondents who participated in fitness classes were also females attending classes once or twice a week (n=151) and three or more times a week (n=109). Responses from males showed they were significantly less active in terms of the fitness classes, with the majority of responses coming from the members taking part in classes once or twice a week (n=34) and a few times a year (n=25) (Table 8.5).

Table 8.6: Gender and frequency of participation in fitness classes

		Gender		
		Male	Female	Total
Participation in fitness classes	never	131	120	251
	a few times a year	25	57	82
	monthly	9	26	35
	once or twice a week	34	151	185
	three or more times a week	18	109	127
Total		217	463	680

Across the respondents of both genders who used a fitness suite, the majority reported exercising once or twice a week (n=190) and three or more times a week (n=159) (Table 8.7). Participation in classes showed a similar pattern, with most of the respondents taking part in classes more than once a week (n=312).

Table 8.7: Use of fitness suite and participation in fitness classes

		Participation in fitness classes					Total
		never	a few times a year	monthly	once or twice a week	three or more times a week	
Use of fitness suites	never	85	5	2	45	31	168
	a few times a year	18	15	3	34	34	104
	monthly	13	12	5	16	13	59
	once or twice a week	69	23	13	60	25	190
	three or more times a week	66	27	12	30	24	159
Total		251	82	35	185	127	680

As shown in the Table 8.7, a significant proportion of the members who used a fitness suite once or more a week reported either never taking part in classes (n=135) or participating once or twice a week (n=90). This mirrors a pattern for the participants of classes who attended

once or more a week: the largest proportion reported using a fitness suite once or twice a week (n=85), or not using it at all (n=76).

8.3 Profile of frequent users

For the purpose of the study frequent users were defined as per Jekauc et al.'s (2015) study, i.e. as regular attenders who exercised on average 1.55 times a week. A category of frequent users was formed by two groups of respondents: 1) those who exercised once or twice a week; and 2) those who exercised three or more times a week. The respondents were considered as frequent (or regular) if they reported attending either a fitness suite or fitness classes once or more a week.

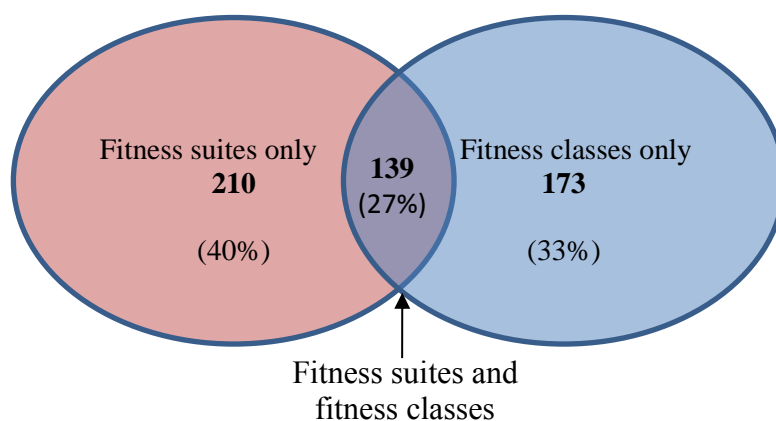
In total, 522 respondents self-reported to be frequent users of fitness suite, fitness classes, or both. Table 8.8 shows the number of responses from frequent users of fitness suite and classes.

Table 8.8: Responses from frequent users

Number of customers who responded to the survey	Frequent users: Fitness suite	Frequent users: Fitness classes	Frequent users: Fitness classes and Fitness suite, Total
680	349	312	522

The overlap between frequent users of fitness suites and fitness classes is demonstrated in Figure 8.3 below. It shows that 27% (n=139) respondents frequently used both areas, whereas 40% (n=210) were frequent users of a fitness suite only and 33% (n=173) participated frequently only in classes.

Figure 8.3: Frequent users of fitness suites and fitness classes



There were 140 males and 209 females amongst frequent users of fitness suites, out of which 83 males and 52 females were exclusive users of a fitness suite (i.e. they never attended classes) (Table 8.9). Frequent users of classes included 52 males and 260 females; 12 males and 64 females were exclusive users of fitness classes (i.e. they never used a fitness suite).

Table 8.9: Gender profile of frequent users

	Fitness suite	Fitness suite exclusively	Fitness classes	Fitness classes exclusively
Males	140	83	52	12
Females	209	52	260	64
Total	349	135	312	76

Tables 8.10 - 8.13 show participation patterns of frequent users in the two areas, in relation to their gender. Most of the male respondents (n=83) who used a fitness suite frequently never participated in classes (Table 8.10). This pattern was, in part, similar for female respondents as most of them either never participated in classes (n=52) or attended classes once or twice a week (n=66) (Table 8.11).

Table 8.10: Participation in fitness classes amongst frequent male users of fitness suite

		Participation in fitness classes					Total
		never	a few times a year	monthly	once or twice a week	three or more times a week	
Use of fitness suites	once or twice a week	39	3	5	10	3	60
	three or more times a week	44	16	3	14	3	80
	Total	83	19	8	24	6	140

Table 8.11: Participation in fitness classes amongst frequent female users of fitness suites

		Participation in fitness classes					Total
		never	a few times a year	monthly	once or twice a week	three or more times a week	
Use of fitness suites	once or twice a week	30	20	8	50	22	130
	three or more times a week	22	11	9	16	21	79
	Total	52	31	17	66	43	209

The majority of male respondents (n=30) who frequently participated in fitness classes also reported frequent use of a fitness suite (Table 8.12). Responses from females showed that the three largest groups used a fitness suite once or twice a week (n=72), a few times a year (n=61) or never used it at all (n=64) (Table 8.13).

Table 8.12: Use of fitness suite amongst frequent male participants of fitness classes

		Use of fitness suites					Total
		never	a few times a year	monthly	once or twice a week	three or more times a week	
Participation in fitness classes	once or twice a week	6	3	1	10	14	34
	three or more times a week	6	4	2	3	3	18
	Total	12	7	3	13	17	52

Table 8.13: Use of fitness suites amongst frequent female participants of fitness classes

		Use of fitness suite					Total
		never	a few times a year	monthly	once or twice a week	three or more times a week	
Participation in fitness classes	once or twice a week	39	31	15	50	16	151
	three or more times a week	25	30	11	22	21	109
	Total	64	61	26	72	37	260

As shown in Tables 8.10 - 8.13, significant proportions of frequent users participated in an alternative area (either a fitness suite or fitness classes). Also, despite the fact that the majority of respondents amongst frequent users were females, the largest group of exclusive users of a single area consisted of males who used a fitness suite only (n=80).

8.4 Service quality in fitness suites

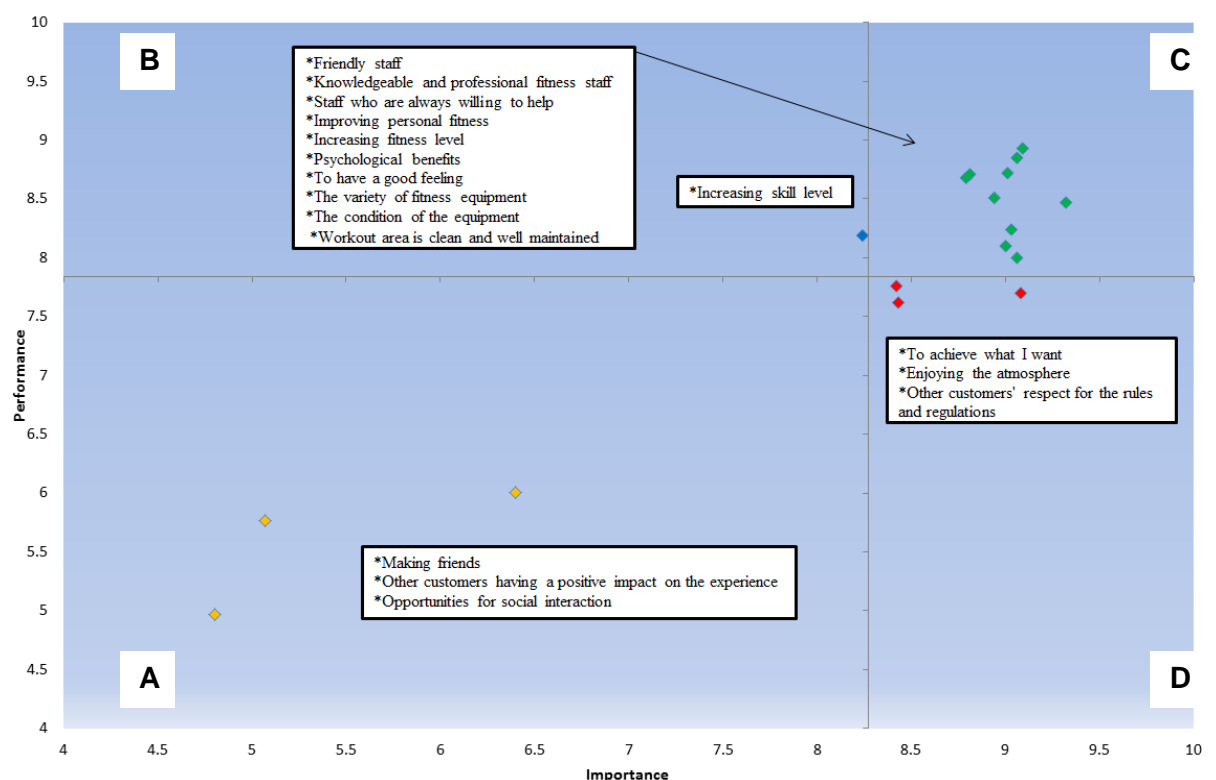
8.4.1 Evaluation of Service Attributes

Objective 1: to investigate frequent customers' perceptions of service quality in public sports centres by using a customer satisfaction survey tool.

In order to measure importance and performance of service quality attributes as perceived by frequent customers of fitness suites, mean performance and mean importance values were computed for each service quality item (Appendix G). Figure 8.4 shows groups of service quality items distributed across four quadrants of the Importance-Performance Analysis (IPA) matrix. The matrix was divided into four quadrants, and used the mean importance value (8.27) on the X-axis and the mean performance value (7.84) on the Y-axis.

Thus, three items belonging to Inter-client interaction and Sociability sub-dimensions were assigned to quadrant A (Low priority) reflecting fair performance and low importance. The item of Increasing skill level (Benefits) was a single item in quadrant B (Possible Overkill) which indicated that there were no other high performing items which were of low importance to customers. Ten other items fitted in quadrant C (Keep up good work) which forms the majority of all service quality items from all sub-dimensions. Quadrant D (Concentrate here) was populated with three items - To achieve what I want (Valence), enjoying the atmosphere (Ambience) and Other customers' respect for rules and regulations (Inter-Client interaction). Quadrant D indicates that KAL seems to be experiencing most difficulties with these three items and may require additional resources to improve the quality.

Figure 8.4: Importance-performance matrix for service quality items in fitness suites

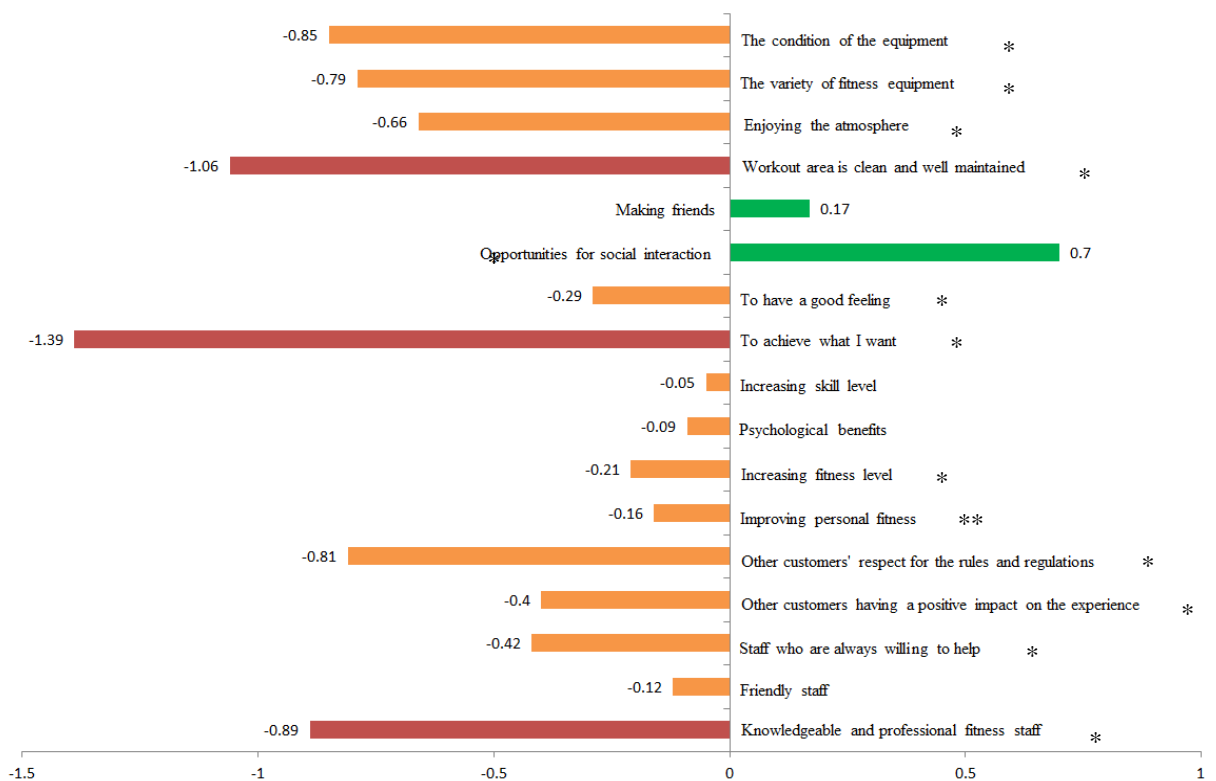


8.4.2 Analysis of gaps

Objective 1: to investigate frequent customers' perceptions of service quality in public sports centres by using a customer satisfaction survey tool.

To identify the difference between performance and importance of service quality items mean performance scores were subsequently subtracted from the mean importance scores (P-I). The resulting difference indicates whether there is a deficit or surplus between customers' perceptions of the service they receive and the importance they assign to the item (Figure 8.5). In order to investigate whether there is any statistically significant difference between the mean importance and performance scores for each item a paired-samples t-test was performed. A significant t-test result and a positive (P-I) difference indicates a statistically significant quality surplus, whereas a significant t-test result and a negative (P-I) difference points out a statistically significant quality deficit (Appendix G).

Figure 8.5: Mean score gaps - Fitness suites



The analysis revealed that there is a quality deficit in all quality items, except for two Sociability items which demonstrated a quality surplus. Also, the (P-I) difference was found to be statistically significant across all items, except Friendly staff; Psychological benefits; Increasing skill level; and Making friends. Thus, the only item with a statistically significant

quality surplus was 'Opportunities for social interaction'. The top three items which demonstrated a significant quality deficit were: To achieve what I want (-1.39); Workout area is clean and well maintained (-1.06); and Knowledgeable and professional fitness staff (-0.89). The full list of (P-I) mean gaps in rank order is presented in Appendix H.

Tables 8.14 and 8.15 below identify five attributes (out of 17) with the largest gaps between performance of attributes and their importance, measured by mean scores or by ranks (for the full list of gaps measured by mean scores or by ranks see Appendix H and Appendix I). These gaps signal the attributes with the most potential for presenting problems: it should be emphasised that the two attributes have a performance score of less than the mean performance value 7.84, namely: 'To achieve what I want' (7.70) and 'Other customers' respect for the rules and regulations' (7.62). This serves as an indicator of some absolute problems among these attributes, although the rank of importance for the latter is not very high (12 out of 17).

Table 8.14: Top five mean score gaps - Fitness suites

Attribute	Performance	Importance	Gap
To achieve what I want	7.70	9.08	-1.39
Workout area is clean and well maintained	8.00	9.06	-1.06
Knowledgeable and professional fitness staff	8.10	9.00	-0.89
The condition of the equipment	8.47	9.32	-0.85
Other customers' respect for the rules and regulations	7.62	8.43	-0.81

Table 8.15: Rank gaps - Fitness suites

Attribute	Performance	Importance	Gap
To achieve what I want	13	3	10
Workout area is clean and well maintained	11	4	7
The condition of the equipment	7	1	6
Other customers' respect for the rules and regulations	14	12	2
Knowledgeable and professional fitness staff	10	8	2

Table 8.15 demonstrates that three of the attributes with the greatest gaps are among the top four most important aspects of the service KAL offers to customers. Achievement of benefits and cleanliness show the largest gaps whether measured by rankings or by mean scores and have been scored lower than 5 by 6.89% and 7.74% of respondents respectively (cleanliness is in the top five for importance). In addition, 4% and 3.73% of relevant respondents scored low on the knowledge and professionalism of staff and the condition of the equipment respectively. Other levels of perceived low performance of the reported attributes are 47% for making friends; 30% for the opportunities for social interaction; 22% for other customers' having a positive impact on the experience; and 10% for other customers' respect for rules and regulations. The service attributes with the largest proportions of customers who scored lower than 5 out of 10 for the attribute performance are identified in Table 8.16.

Table 8.16: % of respondents who scored lower than 5 for the attribute performance

Service attributes	% of respondents
Making friends	46.71
Opportunities for social interaction	29.51
Other customers having a positive impact on the experience	22.35
Other customers' respect for the rules and regulations	10.32
Workout area is clean and well maintained	7.74

It should be emphasised that four of the attributes in Table 8.16 had mean performance scores of less than the mean performance value (7.84), namely: making friends (4.97); opportunities for social interaction (5.77); other customers having a positive impact on the experience (6.00); and other customers' respect for the rules and regulations (7.62); the percentage of respondents scoring low on the featured attributes is alarmingly high. Although most 'problems' are not absolute, but relative as a result of the performance scores falling short of the importance scores, a high number of customers scored low on these attributes.

8.4.3 Service performance and service importance

Objective 1: to investigate frequent customers' perceptions of service quality in public sports centres by using a customer satisfaction survey tool.

In order to explore whether frequent users of fitness suites differentiate between the concepts of service attribute performance and service attribute importance, the Pearson correlation between performance and importance of service attributes was applied (Table 8.17).

Table 8.17: Mean importance-performance scores - Correlation analysis

Service quality items	Mean Performance Score	Mean Importance Score	Correlation analysis
Knowledgeable and professional fitness staff	8.10	9.00	Pearson correlation 0.180** Significance (two-tailed) 0.001 N 349
Friendly staff	8.68	8.79	Pearson correlation 0.547** Significance (two-tailed) 0.000 N 349
Staff who are always willing to help	8.51	8.94	Pearson correlation 0.503** Significance (two-tailed) 0.000 N 349
Other customers having a positive impact on the experience	6.00	6.40	Pearson correlation 0.676** Significance (two-tailed) 0.000 N 349
Other customers' respect for the rules and regulations	7.62	8.43	Pearson correlation 0.378** Significance (two-tailed) 0.000 N 349
Improving personal fitness	8.93	9.09	Pearson correlation 0.669** Significance (two-tailed) 0.000 N 349
Increasing fitness level	8.85	9.06	Pearson correlation 0.692** Significance (two-tailed) 0.000 N 349
Psychological benefits	8.71	8.81	Pearson correlation 0.788** Significance (two-tailed) 0.000 N 349
Increasing skill level	8.19	8.24	Pearson correlation 0.737** Significance (two-tailed) 0.000 N 349
To achieve what I want	7.70	9.08	Pearson correlation 0.372** Significance (two-tailed) 0.000 N 349
To have a good feeling	8.72	9.01	Pearson correlation 0.592** Significance (two-tailed) 0.000 N 349

Opportunities for social interaction	5.77	5.07	Pearson correlation 0.692** Significance (two-tailed) 0.000 N 349
Making friends	4.97	4.80	Pearson correlation 0.728** Significance (two-tailed) 0.000 N 349
Workout area is clean and well maintained	8.00	9.06	Pearson correlation 0.436** Significance (two-tailed) 0.000 N 349
Enjoying the atmosphere	7.76	8.42	Pearson correlation 0.523** Significance (two-tailed) 0.000 N 349
The variety of fitness equipment	8.24	9.03	Pearson correlation 0.335** Significance (two-tailed) 0.000 N 349
The condition of the equipment	8.47	9.32	Pearson correlation 0.475** Significance (two-tailed) 0.000 N 349

The results show that there is a significant positive correlation between performance and importance of all corresponding attributes, varying from a very weak strength of correlation (e.g. Knowledgeable and professional fitness staff, $r = 0.180$) to a strong correlation (e.g. Psychological benefits, $r = 0.788$). This suggests that there is a significant linear association between the mean performance and importance scores of the same quality attributes. However, they are not perceived by the respondents as interchangeable or as the same concepts, since the correlation coefficient is not equal or close to +1 which would indicate a perfect positive relationship.

8.4.4 Differences between two groups of frequent users

Objective 3: to identify if frequent use of one area contributes to an improvement in the customers' perception scores in another.

In order to identify if there are any significant differences in quality perceptions between two groups of frequent users of fitness suites: a) those who exercise once or twice a week; and b) those who exercise three or more times a week, an independent-samples t-test was conducted to compare quality perceptions scores amongst these two groups. The tests were conducted separately for the frequent users of a fitness suite ($n=349$) and the frequent users of a fitness suite who also attend fitness classes frequently ($n=139$). The two groups were compared on

the level of performance scores for individual attributes as well as on the weighted performance score (WPS) for the quality sub-dimensions.

Table 8.18 includes only significant results of the t-test across the attributes. The attribute of inter-client interaction "Generally, other customers in the fitness suite follow rules and regulations" has a significant difference in the scores between the two groups of customers, $t(296.545)=2.023$, $p=0.044$ with the customers exercising once or twice a week ($M=7.85$, $SD=1.990$) scoring higher than customers exercising three or more times a week ($M=7.35$, $SD=2.541$). This can be explained by the fact that the customers who exercise less frequently naturally come across fewer occasions of other customers disrespecting the rules and regulations than those who excises more frequently.

Attributes related to the outcome benefits, i.e. improving personal fitness, increased fitness level, psychological benefits and increased skill level had significant differences in the scores between the two groups of customers, with the users exercising three or more times a week ($M=9.36$, $SD=1.021$; $M=9.28$, $SD=1.102$; $M=9.11$, $SD=1.253$; $M=8.71$, $SD=1.636$) scoring higher across all four attributes than the ones exercising once or twice a week ($M=8.56$, $SD=1.544$; $M=8.49$, $SD=1.606$; $M=8.38$, $SD=1.934$; $M=7.76$, $SD=2.114$). This confirms that frequency of participation is associated with higher levels of engagement with the service, which in its turn provides more opportunities for co-creation of service, improves perception of personal efficacy and, therefore, results in higher scores for those attributes.

Table 8.18: Significant differences in attribute means of frequent users - Fitness suites

Attribute	Once or twice a week, Mean score (n=190)	Three or more times a week, Mean score (n=159)
Other customers' respect for rules and regulations	7.85	7.35
Improving personal fitness	8.56	9.36
Increased fitness level	8.49	9.28
Psychological benefits	8.38	9.11
Increased skill level	7.76	8.71
Making friends	4.56	5.47

There was a significant difference in the scores between the two groups in the attribute of making friends, with the customers exercising three or more times a week ($M=5.47$,

SD=3.075) scoring higher than those exercising once or twice a week (M=4.56, SD=2.879). Despite being considerably lower than the mean performance value (7.84), the attribute of making friends demonstrated a quality surplus in gap analysis, however, statistically the gap was insignificant. Also, the IPA indicated that this attribute falls into the area of 'Low priority', with fair performance and low importance for customers. The combination of these findings suggests that although the users of fitness suites have little intention of making friends, those who exercise more frequently are more likely to build positive relationships with other users in the gym.

Table 8.19 shows independent t-test results of comparison between the frequent users of fitness suites who also attend fitness classes frequently (n=139). Similarly to the frequent users of a fitness suite (n=349), the most frequent users (three time or more) who also attended fitness classes frequently demonstrated statistically significant higher mean score across three outcome benefits attribute, compared to the ones exercising in a gym once or twice a week. It should also be noted that all significant attribute means for the frequent users of a fitness suite who frequently attend classes (n=139) are higher than the means for the frequent users of a fitness suite (n=349). This fact suggests that participating in fitness classes might have a contributory influence on the perceptions of the physical and mental benefits which customers receive from using a fitness suite.

Table 8.19: Significant differences in attribute means of frequent users of fitness suites who also attend fitness classes frequently

Attribute	Once or twice a week, Mean score (n=85)	Three or more times a week, Mean score (n=54)
Improving personal fitness	8.75	9.44
Increased fitness level	8.73	9.39
Psychological benefits	8.61	9.17

In Table 8.20, the WPS comparison on the sub-dimensional level indicated that there are significant differences between the two groups in the scores of outcome benefits and sociability, with the customers exercising three or more times a week (M=9.16, SD=0.99; M=5.80, SD=2.74) scoring consistently higher than those exercising once or twice a week (M=8.39, SD=1.52; M=5.4, SD=2.53). This echoes the results of the comparison on the attribute level. Similarly, the WPS comparison on the sub-dimensional level for frequent users

of a fitness suite who also attend fitness classes frequently (Table 8.21) showed that the outcome benefits score was significantly higher in the case of the most frequent users.

Table 8.20: Significant differences in WPS means of frequent users - Fitness suites

Quality sub-dimension	Once or twice a week, Mean score (n=190)	Three or more times a week, Mean score (n=159)
Outcome: Benefits	8.38	9.16
Outcome: Sociability	5.14	5.80

Table 8.21: Significant differences in WPS means of frequent users of fitness suites who also attend fitness classes frequently

Quality sub-dimension	Once or twice a week, Mean score (n=85)	Three or more times a week, Mean score (n=54)
Outcome: benefits	8.64	9.24

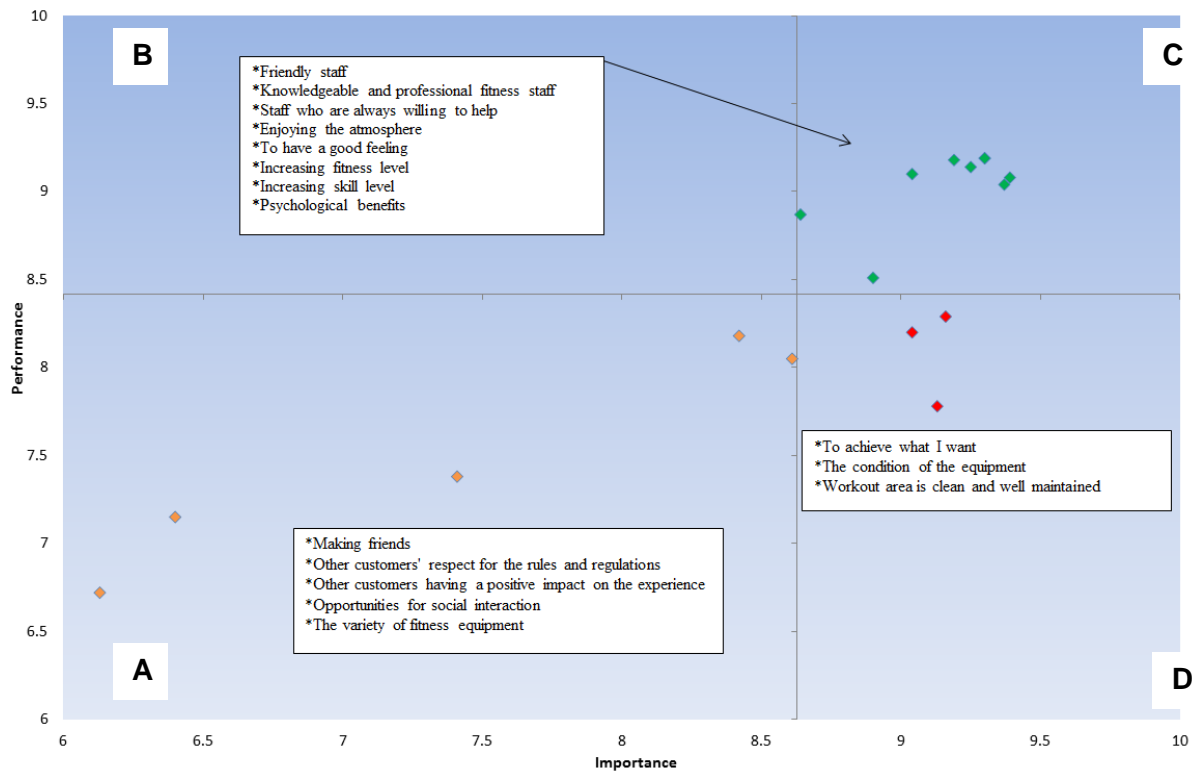
8.5 Service quality in fitness classes

8.5.1 Evaluation of Service Attributes

Objective 1: to investigate frequent customers' perceptions of service quality in public sports centres by using a customer satisfaction survey tool.

In order to measure the importance and performance of service quality attributes as perceived by frequent customers of fitness classes, mean performance and mean importance values were computed for each service quality item (Appendix J). Figure 8.6 shows groups of service quality items distributed across four quadrants of the Importance-Performance Analysis (IPA) matrix.

Figure 8.6: Importance-performance matrix for service quality items in fitness classes



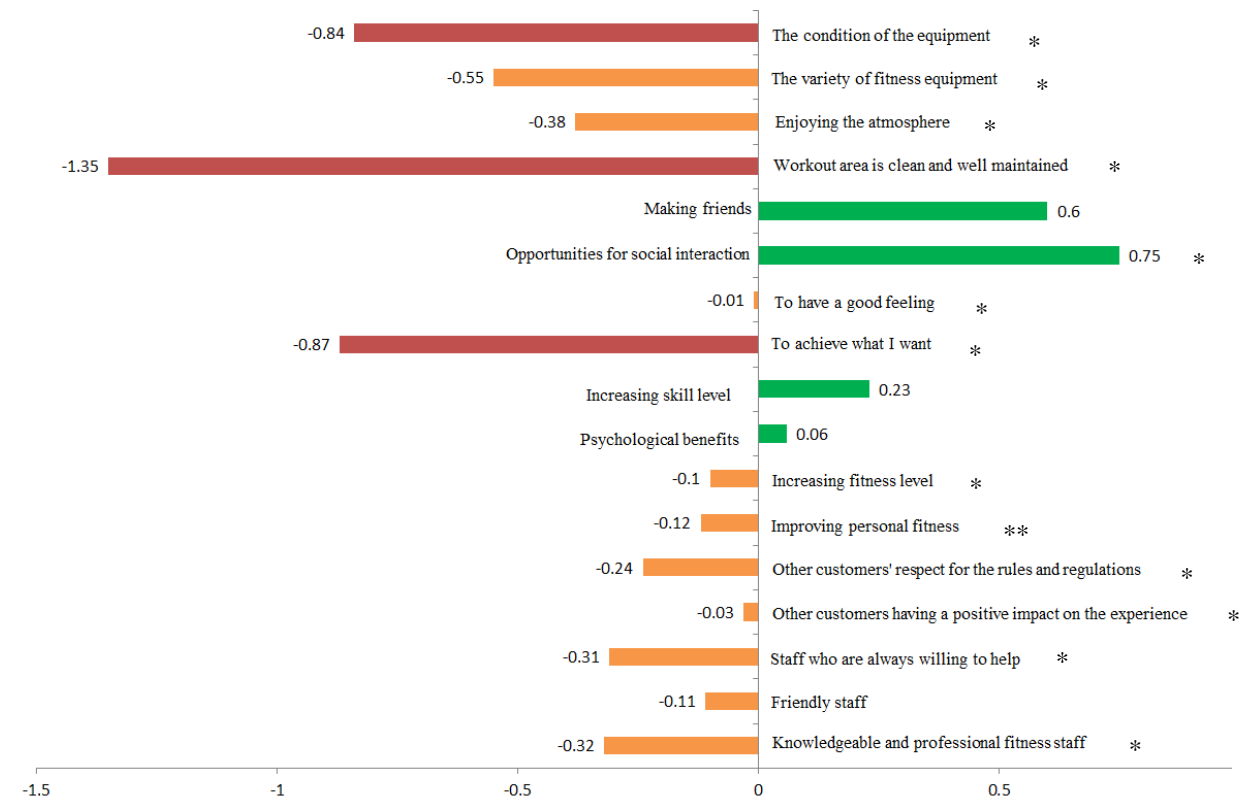
The matrix was divided into four quadrants, and used the mean importance value (8.63) on the X-axis and the mean performance value (8.41) on the Y-axis. Five items belonging to Inter-client interaction, Sociability and Equipment sub-dimensions were assigned in quadrant A (Low priority) with fair performance and low importance. Eight items fitted in quadrant C (Keep up good work) which forms a majority of all service quality items from all sub-dimensions. Quadrant D (Concentrate here) was populated with three items - To achieve what I want (Valence); the condition of the equipment (Equipment); and Workout area is clean and well maintained (Ambience). Quadrant D indicates that KAL seems to be experiencing most difficulties with these three items and may require additional resources for improving quality.

8.5.2 Analysis of gaps

Objective 1: to investigate frequent customers' perceptions of service quality in public sports centres by using a customer satisfaction survey tool.

To identify the difference between the performance and importance of service quality items, mean performance scores were subsequently subtracted from mean importance scores (P-I). The resulting difference indicates whether there is a deficit or surplus between customers' perceptions of the service they receive and the importance they assign to the item (Figure 8.7).

Figure 8.7: Mean score gaps - Fitness classes



In order to investigate whether there is any statistically significant difference between the mean importance and performance scores for each item a paired-samples t-test was performed. A significant t-test result and a positive (P-I) difference indicates a statistically significant quality surplus, whereas a significant t-test result and a negative (P-I) difference points out a statistically significant quality deficit (Appendix J).

The analysis revealed that there is a quality deficit in all quality sub-dimensions, except two Sociability items and two Benefits items which demonstrated a quality surplus. Also, the (P-I) difference was found to be statistically significant across all items, with the exception of the following items: 'To have a good feeling'; 'Increasing fitness level'; 'Psychological benefits'; and 'Other customers having a positive impact on the experience'. Three items were found to show a statistically significant quality surplus, namely: 'Opportunities for social interaction'; 'Making friends'; and 'Increasing skill level'. The top three items which demonstrated significant quality deficit were: 'Workout area is clean and well maintained' (-1.35); 'To achieve what I want' (-0.87); and 'The condition of the equipment' (-0.84). The full list of (P-I) gaps in rank order is presented in Appendix K.

Tables 8.22 and 8.23 below identify five attributes (out of 17) with the largest gaps between performance of attributes and their importance measured by mean scores or by ranks (for the

full list of gaps measured by mean scores or by ranks see Appendix K and Appendix L). These gaps signal the attributes with the most potential to represent problems; it should be emphasised that four attributes (with an exception of 'Knowledgeable and professional fitness staff') have a performance score of less than the mean performance value (8.41). This serves as an indication of some absolute problems among these attributes; moreover, their importance is ranked in the top five of all attributes.

Table 8.22: Top five mean score gaps - Fitness classes

Attribute	Performance	Importance	Gap
Workout area is clean and well maintained	7.78	9.13	-1.35
To achieve what I want	8.29	9.16	-0.87
The condition of the equipment	8.20	9.04	-0.84
The variety of fitness equipment	8.05	8.61	-0.55
Knowledgeable and professional fitness staff	9.04	9.37	-0.32

Table 8.23: Rank gaps - Fitness classes

Attribute	Performance	Importance	Gap
Workout area is clean and well maintained	14	1	13
The variety of fitness equipment	13	4	9
The condition of the equipment	11	3	8
To achieve what I want	10	2	8
Enjoying the atmosphere	9	5	4

Table 8.23 demonstrates that four of the attributes with the greatest gaps are among the top four most important aspects of the KAL offer to customers (the three physical environment attributes). Similar to the situation with fitness suites, cleanliness and achievement of benefits show the largest gaps, whether measured by rankings or by mean scores, and have been scored lower than 5 by 9.61% and 1.6% of respondents respectively (cleanliness is on top of the list for importance). In addition, 3.84% and 5.12% of relevant respondents scored low on the variety of fitness equipment available and the condition of the equipment respectively. Other levels of perceived low performance of the reported attributes are 23% for making

friends; 14% for the opportunities for social interaction; 10% for cleanliness; and 9% for other customers' having a positive impact on the experience. The service attributes with the largest proportions of customers who scored lower than 5 out of 10 for the attribute performance are identified in Table 8.24.

Table 8.24: % of respondents who scored lower than 5 for the attribute performance

Service attributes	% of respondents
Making friends	22.76
Opportunities for social interaction	14.42
Workout area is clean and well maintained	9.61
Other customers having a positive impact on the experience	9.30
The condition of the equipment	5.12

It should be emphasised that all of the attributes from Table 8.24 had mean performance scores of less than the mean performance value (8.41), namely: making friends (6.72); opportunities for social interaction (7.15); other customers' having a positive impact on the experience (7.38); cleanliness (7.78); and condition of the equipment (8.20), the percentage of respondents scoring low on the featured attributes is moderate. However, the mean performance scores are relatively high and most 'problems' are not absolute but relative, as a result of the performance scores falling short of the importance scores with the minority of customers scoring low on these attributes.

8.5.3 Service performance and service importance

Objective 1: to investigate frequent customers' perceptions of service quality in public sports centres by using a customer satisfaction survey tool.

In order to explore whether frequent participants of classes differentiate between the concepts of service attribute performance and service attribute importance, the Pearson correlation between performance and importance of service attributes was applied (Table 8.25).

The results show that there is a significant positive correlation between performance and importance of all corresponding attributes, varying from a weak correlation (e.g. Workout area is clean and well maintained, $r = 0.319$) to a strong correlation (e.g. Psychological benefits, $r = 0.697$). This suggests that there is a significant linear association between the mean performance and importance scores of the same quality attributes, however, they are not

being perceived by the respondents either as interchangeable or as the same concepts, since the correlation coefficient is not equal or close to +1, which would indicate a perfect positive relationship.

Table 8.25: Mean importance-performance scores - Correlation analysis

Service quality items	Mean Performance Score	Mean Importance Score	Correlation analysis
Knowledgeable and professional fitness staff	8.10	9.00	Pearson correlation 0.593** Significance (two-tailed) 0.000 N 312
Friendly staff	8.68	8.79	Pearson correlation 0.668** Significance (two-tailed) 0.000 N 312
Staff who are always willing to help	8.51	8.94	Pearson correlation 0.633** Significance (two-tailed) 0.000 N 312
Other customers having a positive impact on the experience	6.00	6.40	Pearson correlation 0.669** Significance (two-tailed) 0.000 N 312
Other customers' respect for the rules and regulations	7.62	8.43	Pearson correlation 0.580** Significance (two-tailed) 0.000 N 312
Improving personal fitness	8.93	9.09	Pearson correlation 0.610** Significance (two-tailed) 0.000 N 312
Increasing fitness level	8.85	9.06	Pearson correlation 0.615** Significance (two-tailed) 0.000 N 312
Psychological benefits	8.71	8.81	Pearson correlation 0.697** Significance (two-tailed) 0.000 N 312
Increasing skill level	8.19	8.24	Pearson correlation 0.681** Significance (two-tailed) 0.000 N 312
To achieve what I want	7.70	9.08	Pearson correlation 0.370** Significance (two-tailed) 0.000 N 312
To have a good feeling	8.72	9.01	Pearson correlation 0.504** Significance (two-tailed) 0.000 N 312

Opportunities for social interaction	5.77	5.07	Pearson correlation Significance (two-tailed) N	0.594** 0.000 312
Making friends	4.97	4.80	Pearson correlation Significance (two-tailed) N	0.683** 0.000 312
Workout area is clean and well maintained	8.00	9.06	Pearson correlation Significance (two-tailed) N	0.319** 0.000 312
Enjoying the atmosphere	7.76	8.42	Pearson correlation Significance (two-tailed) N	0.538** 0.000 312
The variety of fitness equipment	8.24	9.03	Pearson correlation Significance (two-tailed) N	0.525** 0.000 312
The condition of the equipment	8.47	9.32	Pearson correlation Significance (two-tailed) N	0.439** 0.000 312

8.5.4 Differences between two groups of frequent users

Objective 3: to identify if frequent use of one area contributes to the improvement in the customers' perception scores in another.

In order to identify if there are any significant differences in quality perceptions between two groups of frequent users of fitness classes: a) those who attend classes once or twice a week; and b) those who attend classes three or more times a week, an independent-samples t-test was conducted to compare quality perceptions scores amongst these two groups. The tests were conducted separately for the frequent participants of fitness classes (n=312 and the frequent users of a fitness suite who also attend fitness classes frequently (n=139). The two groups were compared on the level of performance scores for individual attributes as well as on the weighted performance score (WPS) for the quality sub-dimensions.

Table 8.26 includes only the significant results of the t-test across the attributes. The attribute of inter-client interaction 'Other customers having a positive impact on the experience' has a significant difference in the scores between the two groups of customers, with the customers attending classes once or twice a week (M=7.11) scoring lower than customers exercising three or more times a week (M=7.76). This can be explained by the fact that the customers

who exercise more frequently have more opportunities to be exposed to contact with other customers in the group class environment, which creates a part of the service value.

Table 8.26: Significant differences in attribute means of frequent users - Fitness classes

Attribute	Once or twice a week, Mean score (n=185)	Three or more times a week, Mean score (n=127)
Other customers having a positive impact on the experience	7.11	7.76
Improving personal fitness	8.99	9.46
Increased fitness level	8.96	9.41
Psychological benefits	8.92	9.36
Increased skill level	8.63	9.22
To achieve what I want	8.12	8.54
Making friends	6.32	7.31

Attributes related to the outcome benefits, i.e. improving personal fitness; increased fitness level; psychological benefits; and increased skill level, as well as sense of personal achievement (outcome valence), had significant differences in the scores between the two groups of customers, with the users participating in classes three or more times a week scoring higher across all four attributes than the ones attending once or twice a week. As in case of frequent users of fitness suites, these results suggest that higher levels of engagement with the service, i.e. higher frequency of attendance, can improve a perception of personal efficacy and lead to the higher scores for those attributes.

There was a significant difference in the scores between the two groups in the attribute of making friends, with customers exercising three or more times a week ($M=7.31$) scoring higher than those exercising once or twice a week ($M=6.32$). These performance mean values were considerably higher than the corresponding scores on the same attribute from the frequent fitness suite users, with $M=5.47$ and $M=4.56$ respectively. These findings suggest that the participants of fitness classes have better perceptions of building positive relationships with other customers in classes, when attending more frequently.

Table 8.27 shows independent t-test results of the comparison between the frequent participants of fitness classes who also exercise frequently in fitness suites ($n=139$). Similar to the frequent users of fitness classes ($n=312$), the most frequent users (three time or more) who

also exercised in a fitness suite frequently demonstrated statistically significant higher mean scores across same attributes, compared to the ones exercising in a gym once or twice a week. This is with the exception of the psychological benefits attribute which was replaced by knowledgeable and professional fitness staff.

It should also be noted that all significant attribute means for the frequent participants of fitness classes who frequently use a fitness suite (n=139) are higher than the means for the frequent participants of classes (n=312). This fact suggests that additional frequent use of a gym might have a contributory influence on the perceptions of interaction with staff; physical benefits; sense of personal achievement; and building positive relations with other customers.

Table 8.27: Significant differences in attribute means of frequent users of fitness classes who also use fitness suites frequently

Attribute	Once or twice a week, Mean score (n=90)	Three or more times a week, Mean score (n=49)
Knowledgeable and professional fitness staff	9.00	9.47
Other customers having a positive impact on the experience	7.06	8.45
Improving personal fitness	9.11	9.53
Increased fitness level	9.17	9.51
Increased skill level	8.72	9.43
To achieve what I want	8.18	8.78
Making friends	6.49	8.24

The comparison of WPS on the sub-dimensional level (Table 8.28) indicated that there are significant differences between the two groups in the scores of outcome benefits, valence and sociability, with customers exercising three or more times a week scoring consistently higher than those exercising once or twice a week. This echoes the results of the comparison on the attribute level. The WPS comparison on the sub-dimensional level for frequent participants of fitness classes who also use a fitness suite frequently (Table 8.29) showed that outcome benefits, sociability and inter-client interaction scores were significantly higher in the case of the most frequent users.

Table 8.28: Significant differences in WPS means of frequent users - Fitness classes

Quality sub-dimension	Once or twice a week, Mean score (n=185)	Three or more times a week, Mean score (n=127)
Outcome: benefits	8.92	9.39
Outcome: valence	8.62	8.93
Outcome: sociability	6.67	7.39

Table 8.29: Significant differences in WPS means of frequent users of fitness classes who also use fitness suites frequently

Quality sub-dimension	Once or twice a week, Mean score (n=90)	Three or more times a week, Mean score (n=49)
Inter-client interaction	7.94	8.55
Outcome: benefits	9.07	9.48
Outcome: sociability	6.91	8.06

8.6 Comparative Evaluation of Service Quality Perceptions: Fitness suites and Fitness classes

Objective 2: to compare quality perceptions between two groups of frequent users - users of the fitness suite and users of fitness classes.

The comparative evaluation of service quality perceptions between frequent users of fitness suites (n=349) and frequent users of fitness classes (n=312) consists of three parts. First, performance scores on the attribute level were compared to identify which attributes demonstrated the biggest differences in customers' quality perceptions. Secondly, the performance score for each sub-dimension of quality was calculated taking into account the mean importance of each attribute, to derive the weighted performance score (WPS):

$$WPS_{sub-dimension Z} = \frac{P_{attribute 1} \times I_{attribute 1} + P_{attribute n} \times I_{attribute n}}{\sum_{i=1}^n I_{attribute i}}$$

Where $WPS_{sub-dimension Z}$ - Weighted performance score for sub-dimension Z

$P_{attribute n}$ - Performance score for the attribute n

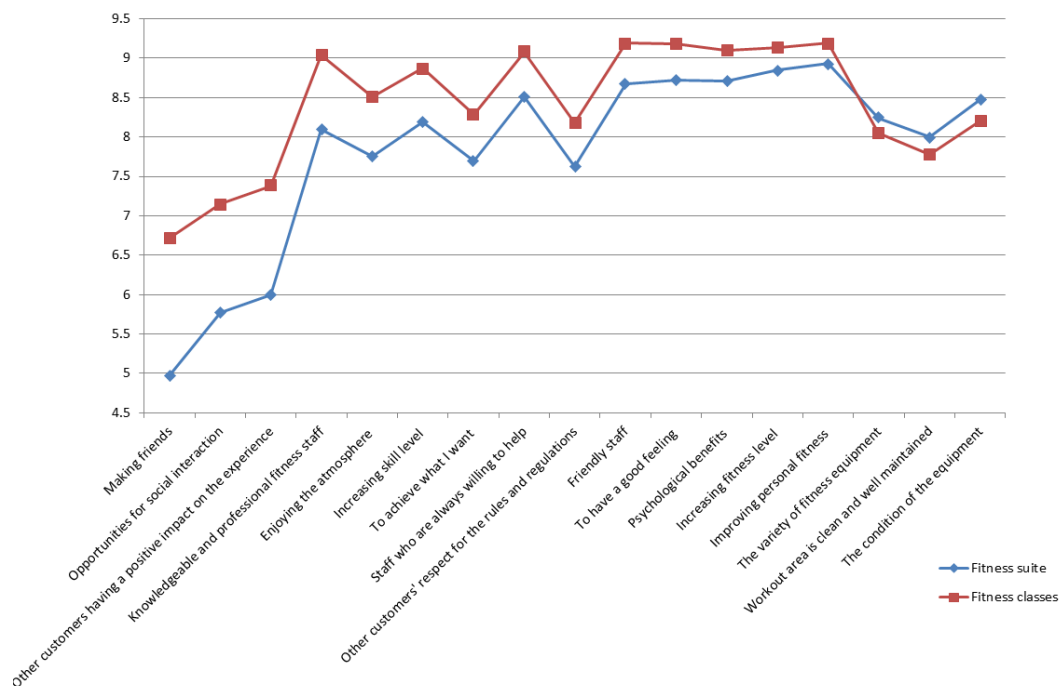
$I_{attribute n}$ - Importance score for the attribute n

n - a number of attributes in a sub-dimension

Finally, mean score gaps on the attribute level and the level of dimensions were compared and evaluated.

The comparison of performance scores for fitness suites and fitness classes across seventeen quality attributes suggested that in absolute terms fitness classes outperform fitness suites on fourteen out of seventeen attributes (Figure 8.8).

Figure 8.8: Performance scores - fitness suites and fitness classes



The results show that participants of fitness classes were generally more satisfied with the service quality in the classes than the users of fitness suites in the gym environment. This is with the exception of three attributes - the variety of fitness equipment, the condition of the equipment and cleanliness of the studios - which showed lower performance scores among

fitness class participants than among users of fitness suites. However, the scores for the condition of the equipment (M=8.20) and cleanliness of the studios (M=7.78) are not of concern in absolute terms; IPA analysis showed that these two attributes are in the 'Concentrate here' quadrant for fitness classes (see Section 8.6.1).

The largest differences in quality perceptions between two groups were revealed in the aspects of sociability and inter-client interaction: the attributes of making friends; opportunities for social interaction; and other customers having a positive impact on the experience showed differences over 1.0 (Appendix M), with fitness classes participants scoring higher than fitness suite users. However, IPA analysis indicated that these three attributes are in the 'Low priority' quadrant for both fitness suites and fitness classes (see Sections 8.5.1 and 8.6.1). This implies that although fitness class participants are more satisfied with the aspects of social interaction than users of fitness suites, it does not present an immediate problem that requires urgent attention. Also, results showed that frequent users of a fitness suite exercising three times or more scored higher on this attribute (M=5.47) than those exercising once or twice a week (M=4.56) (Section 8.5.4), which indicates that frequency of attendance is associated with higher satisfaction with regard to the attribute of making friends.

Figure 8.9 and Table 8.30 present a comparison of WPS for sub-dimensions of quality in fitness suites and fitness classes. The scores for fitness classes are consistently higher than the scores for the fitness suites, except the Equipment sub-dimension. Due to the fact that fitness suites are equipment-based, this aspect received more attention from KAL than the same aspect in fitness classes. On the other hand, the Client-employee interaction and Benefits received the highest WPS for fitness classes, which emphasises prominence of a human element of the service. Indeed, the environment of fitness classes is shaped by more intangible aspects which make the interaction with the class instructors a key element of service provision, in comparison to fitness suites. This is also reflected in the greatest differences in scores received by Sociability sub-dimension, followed by Inter-client interaction and Client-employee interaction, with fitness suites having lower scores compared to fitness classes.

Figure 8.9: Weighted Performance scores for sub-dimensions of quality in fitness suites and fitness classes

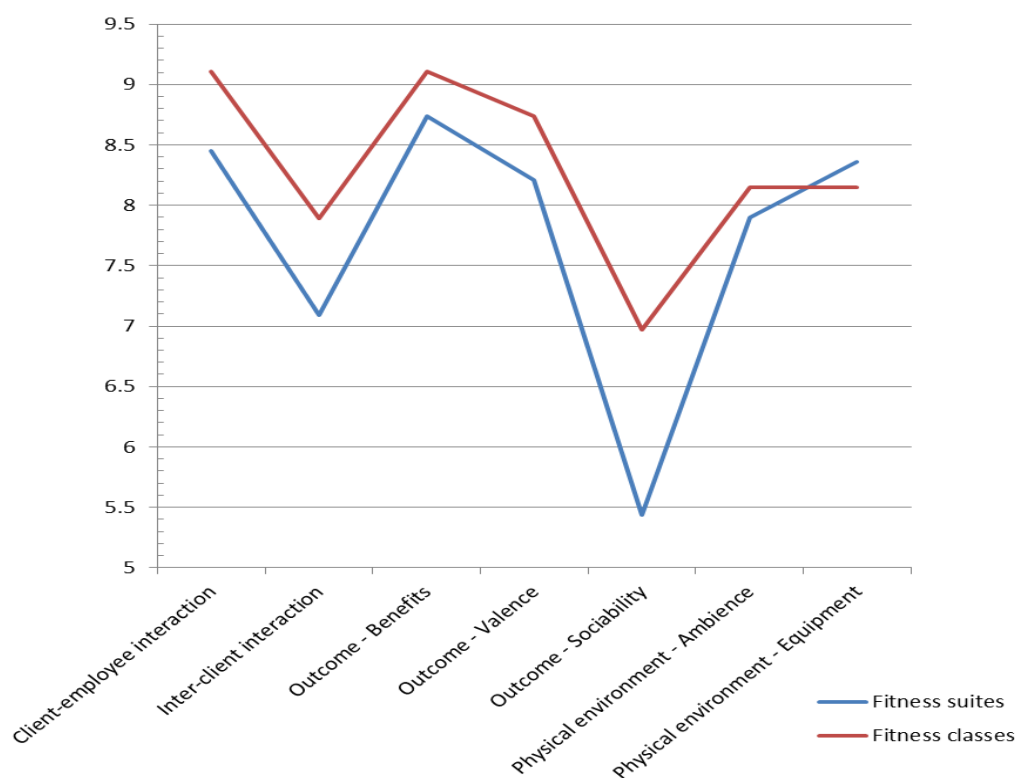


Table 8.30: Weighted Performance scores for sub-dimensions of quality

Sub-dimensions	Fitness suites, WPS	Fitness classes, WPS	Difference, (FS-FC)
Client-employee interaction	8.45	9.11	-0.66
Inter-client interaction	7.09	7.89	-0.80
Outcome - Benefits	8.74	9.11	-0.37
Outcome - Valence	8.21	8.74	-0.53
Outcome - Sociability	5.44	6.97	-1.53
Physical environment - Ambience	7.90	8.15	-0.25
Physical environment - Equipment	8.36	8.15	0.21

In terms of mean importance-performance score gaps across attributes within the quality dimensions (Table 8.31), cleanliness of workout area, showed the biggest gap for both fitness suites and fitness classes in the physical environment, yet it is greater in the case of fitness classes. The attribute of 'Enjoyment of the atmosphere' received the highest performance

score across the physical environment quality in both fitness suites and fitness classes and it also has the smallest gap score (M= 0.38).

Table 8.31: Mean gap scores: Fitness suites and fitness classes

Attribute	Fitness suites Gap (P-I)	Fitness classes Gap (P-I)
Knowledgeable and professional fitness staff	-0.89	-0.32
Friendly staff	-0.12	-0.11
Staff who are always willing to help	-0.42	-0.31
Other customers having a positive impact on the experience	-0.40	-0.03
Other customers' respect for the rules and regulations	-0.81	-0.24
Improving personal fitness	-0.16	-0.12
Increasing fitness level	-0.21	-0.10
Increasing skill level	-0.05	0.23
Psychological benefits	-0.09	0.06
To achieve what I want	-1.39	-0.87
To have a good feeling	-0.29	-0.01
Opportunities for social interaction	0.70	0.75
Making friends	0.17	0.60
Workout area is clean and well maintained	-1.06	-1.35
Enjoying the atmosphere	-0.66	-0.38
The variety of fitness equipment	-0.79	-0.55
The condition of the equipment	-0.85	-0.84

Results across Interactional quality showed the highest performance score in friendliness of staff in fitness classes, with the smallest gap of -0.11 in the Client-employee interaction sub-dimension; whereas the smallest gap in the dimension was demonstrated by the attribute 'Other customers having a positive impact on the experience in fitness classes (-0.03).

The Outcome quality dimension received the highest number of positive score gaps in the attributes in both fitness suites and fitness classes, namely: opportunities for social interaction; making friends (for fitness suites); psychological benefits; increasing skill level;

and opportunities for social interaction (for fitness classes). However, it should be mentioned that 'making friends' in fitness suites had the lowest performance score. This fact, in combination with the gap score analysis, indicates that this attribute is of low priority and focus for the customers in fitness suites as well as KAL, therefore it does not present a direct concern for the organisation. Also, the positive gap in psychological benefits and increasing skill level in fitness classes was statistically insignificant ($p=0.289$), which does not allow for generalisation beyond the current sample (Appendix N).

Three dimensions of quality - Interaction quality, Outcome quality and Physical environment quality - were found to have larger gaps between performance and importance scores in the case of fitness suites (Table 8.32). Moreover, the Outcome quality in fitness classes indicates a positive difference that suggests there is a quality surplus in this dimension.

A comparative analysis of mean importance-performance score gaps suggests that in relative terms (i.e. taking into account importance) fitness classes outperform fitness suites on sixteen out of seventeen attributes and on all of the three dimensions.

Table 8.32: Mean importance-performance score gaps - dimension level

Dimensions	Fitness suites	Fitness classes
Interaction quality	-0.53	-0.20
Outcome quality	-0.17	0.07
Physical environment quality	-0.84	-0.78

Overall, members attending fitness classes provided better performance ratings across the attributes and the gap score are lower in comparison with the scores from fitness suite members, which implies that the importance assigned to the attributes is generally higher in the case of the fitness class members.

8.7 Perceptions of service quality and overall satisfaction

Objective 4: to explore the relationship between areas of perceived service quality and overall customer satisfaction in the case of frequent users.

In order to explore the relationship between perceived service quality and overall customer satisfaction, two stages of analysis were undertaken. Firstly, total performance scores for

service quality sub-dimensions were calculated in two different ways, with the aim of comparing the differences and choose a set of performance scores for further analysis. Total performance scores for quality sub-dimensions were calculated in two ways, namely as a straight average performance score (APS) and as a weighted performance score (WPS) that takes into account the importance of the attributes. The paired sample t-test was applied to average performance scores and weighted performance scores, and separately for fitness suites and fitness classes users, in order to evaluate differences between the two sets of performance scores.

Secondly, in order to explore the relationship between the service quality sub-dimensions and an overall customer satisfaction, the Pearson correlation was applied to the chosen set of performance scores for quality sub-dimensions and overall satisfaction.

8.7.1 Overall satisfaction with fitness services

Frequent users of fitness suites (n=349) were asked to rate their overall satisfaction with the fitness suite on a scale from 1-very poor to 10-excellent. The results showed the mean score for overall satisfaction 8.38 out of 10. This was higher than the relevant mean score of 8.11 related to all users of fitness suites (n=512) (Table 8.33).

Similarly, frequent users who participated in fitness classes (n=312) were asked to rate their overall satisfaction with the fitness classes on a scale from 1-very poor to 10-excellent. The mean score for overall satisfaction was 8.99 out of 10. This was higher than the relevant mean score of 8.57 which takes into account scores from all participants of fitness classes (n=429).

Table 8.33: Overall satisfaction with fitness services

	Fitness suites		Fitness classes	
	Frequent users (n=349)	All users (n=512)	Frequent users (n=312)	All users (n=429)
Mean score	8.38	8.11	8.99	8.57

Table 8.33 shows that overall satisfaction with services is higher in the case of frequent users in either area. This supports Ferrand et al. (2010) who suggested that customers satisfied with the services are likely to attend more than those who are less satisfied. Also, overall

satisfaction scores are consistently higher amongst the participants of fitness classes, in comparison with the scores from users of fitness suites.

8.7.2 Average performance scores vs Weighted performance scores

After calculating the total performance scores for quality sub-dimensions in two ways, differences in average performance scores (APS) and weighted performance scores (WPS) for sub-dimensions were compared (Table 8.34 and 8.35). While interpreting results from the paired-samples t-test, the maximum acceptable level of statistical significance was considered as $p < 0.05$.

Table 8.34: Mean differences for APS and WPS - Fitness suites

Quality sub-dimension	APS	WPS	Mean difference	P
Client-employee interaction	8.43	8.45	0.02	0.100
Inter-client interaction	6.81	7.09	0.28	0.000
Outcome - Benefits	8.67	8.74	0.07	0.000
Outcome - Valence	8.21	8.21	0.00	0.060
Outcome - Sociability	5.37	5.44	0.07	0.000
Physical environment - Ambience	7.87	7.90	0.03	0.015
Physical environment - Equipment	8.36	8.36	0.00	0.901

Table 8.35: Mean differences for APS and WPS - Fitness classes

Quality sub-dimension	APS	WPS	Mean difference	P
Client-employee interaction	9.10	9.11	0.01	0.103
Inter-client interaction	7.78	7.89	0.11	0.000
Outcome - Benefits	8.82	9.21	0.39	0.000
Outcome - Valence	8.74	8.74	0.00	0.001
Outcome - Sociability	6.94	6.97	0.03	0.000
Physical environment - Ambience	8.15	8.15	0.00	0.935
Physical environment - Equipment	8.13	8.15	0.02	0.029

Calculations of APS and WPS showed that scores for WPS were either equal to or slightly higher than APS, for both fitness suites and fitness classes. Results of a paired-samples t-test showed that differences between APS and WPS mean scores for fitness suites were significant (i.e. $p < 0.05$) in the case of following four out of seven sub-dimensions: Inter-client interaction; Benefits; Sociability; and Ambience. For fitness classes, the differences between APS and WPS mean scores were significant (i.e. $p < 0.05$) for five out of seven, namely: Inter-client interaction; Benefits; Valence; Sociability; and Equipment. All significant mean differences were greater in value than the insignificant mean differences for both fitness suites and fitness classes.

In order to obtain a total performance score for a quality sub-dimension, WPS accounts for the differences in importance assigned to each attribute, unlike APS which assumes that all attributes have the same weight. Thus, using WPS allows for provision of a more accurate calculation of scores for the level of quality sub-dimensions. In addition, the results from paired-samples t-test showed that the majority of mean differences between APS and WPS were statistically significant; they were also greater in values than statistically insignificant differences in both cases of fitness suites and fitness classes. On this basis, WPS was chosen as a more reliable set of performance scores for further statistical tests.

8.7.3 Fitness suites

Bivariate correlation was applied to WPS of each sub-dimension and mean score for overall satisfaction in fitness suites ($M=8.38$, $n=349$). Table 3.36 shows results from correlation analysis, including Pearson coefficient r and statistical significance (maximum acceptable level of statistical significance was considered as $p < 0.05$).

Results showed that all quality sub-dimensions have a positive relationship with overall satisfaction in fitness suites; all relationships were statistically significant ($p < 0.5$). The strongest relationship was demonstrated by two sub-dimensions of physical environment - Ambience ($r = 0.735$) and Equipment ($r = 0.734$) which can explain 54% of association with the overall satisfaction of each. Sociability was found to have the weakest relationship with overall satisfaction ($r = 0.300$) and can explain only 9% of association. The remaining sub-dimensions showed a moderate relationship to overall satisfaction, varying from $r = 0.486$ (Benefits) to $r = 0.583$ (Valence).

Table 8.36: Overall satisfaction and WPS - Correlation analysis - Fitness suites

Quality sub-dimension	WPS	Correlation analysis	
Client-employee interaction	8.45	Pearson correlation	0.562**
		Significance (two-tailed)	0.001
		N	349
Inter-client interaction	7.09	Pearson correlation	0.523**
		Significance (two-tailed)	0.000
		N	349
Outcome - Benefits	8.74	Pearson correlation	0.486**
		Significance (two-tailed)	0.000
		N	349
Outcome - Valence	8.21	Pearson correlation	0.583**
		Significance (two-tailed)	0.000
		N	349
Outcome - Sociability	5.44	Pearson correlation	0.300**
		Significance (two-tailed)	0.000
		N	349
Physical environment - Ambience	7.90	Pearson correlation	0.735**
		Significance (two-tailed)	0.000
		N	349
Physical environment - Equipment	8.36	Pearson correlation	0.734**
		Significance (two-tailed)	0.000
		N	349

8.7.4 Fitness classes

Bivariate correlation was applied to WPS of each sub-dimension and mean score for overall satisfaction in fitness classes (M=8.99, n=312). Table 3.37 shows results from correlation analysis, including Pearson coefficient r and statistical significance (maximum acceptable level of statistical significance was considered as $p < 0.05$).

Results showed that all quality sub-dimensions have a positive relationship with overall satisfaction in fitness classes; all relationships were statistically significant ($p < 0.5$). The strongest relationship was demonstrated by the sub-dimension of client-employee interaction ($r = 0.659$) which can explain 43% of association with the overall satisfaction. Similarly to fitness suites, the sociability dimension was found to have the weakest relationship with overall satisfaction ($r = 0.227$) and can explain only 5% of association. The rest of the sub-

dimensions showed a moderate relationship with overall satisfaction, varying from $r = 0.419$ (Benefits) to $r = 0.570$ (Valence).

Table 8.37: Overall satisfaction and WPS - Correlation analysis - Fitness classes

Quality sub-dimension	WPS	Correlation analysis	
Client-employee interaction	9.11	Pearson correlation	0.659**
		Significance (two-tailed)	0.001
		N	312
Inter-client interaction	7.89	Pearson correlation	0.484**
		Significance (two-tailed)	0.000
		N	312
Outcome - Benefits	9.21	Pearson correlation	0.419**
		Significance (two-tailed)	0.000
		N	312
Outcome - Valence	8.74	Pearson correlation	0.570**
		Significance (two-tailed)	0.000
		N	312
Outcome - Sociability	6.97	Pearson correlation	0.227**
		Significance (two-tailed)	0.000
		N	312
Physical environment - Ambience	8.15	Pearson correlation	0.567**
		Significance (two-tailed)	0.000
		N	312
Physical environment - Equipment	8.15	Pearson correlation	0.520**
		Significance (two-tailed)	0.000
		N	312

8.8 Summary

This Chapter presented results of a study based on the data collected from the customers of twelve public sports centres managed by Kirklees Active Leisure (KAL). The descriptive section covered the generic profile of respondents as well as the profile of frequent users. A category of frequent users was formed from two groups of respondents: 1) those who exercised once or twice a week; and 2) those who exercised three or more times a week. The respondents were considered as frequent (or regular) if they reported attending either fitness suites or fitness classes more than once a week. In total, 522 respondents self-reported being

frequent users of fitness suites, fitness classes, or both; 349 respondents were frequent users of a fitness suite and 312 were frequent participants of fitness classes.

Results related to the service quality perceptions were presented separately for fitness suites (n= 349) and fitness classes (n= 312), followed by a comparative evaluation of perceptions from both contexts. Analysis of service quality perceptions in each of the two contexts involved evaluation of service quality attributes through importance-performance analysis (IPA); analysis of gaps between performance; importance scores (P-I) in quality attributes; and investigation of differences between more frequent users and less frequent users.

IPA for fitness suites showed that most of service quality items (10 out of 17) from all sub-dimensions populated quadrant C (Keep up good work), with three items in quadrant D (Concentrate here) - personal achievement (Valence), enjoying the atmosphere (Ambience) and other customers' respecting rules and regulations (Inter-Client interaction). These results could be an indication that KAL could be experiencing difficulties with those three items and may require additional resources for improving the quality. Similarly in fitness classes, the majority of items (8 out of 17) also belong to quadrant C (Keep up good work), and three items - personal achievement (Valence); the condition of the equipment (Equipment); and cleanliness of studios (Ambience) – belong in quadrant D (Concentrate here).

The analysis of gaps for fitness suites revealed that there is a quality deficit in all quality sub-dimensions, except two Sociability items which demonstrated a quality surplus, however, only one of them was found to be statistically significant (i.e. 'Opportunities for social interaction'). The (P-I) gaps were found to be statistically significant across all items, except Friendly staff; Psychological benefits; Increasing skill level; and Making friends. A significant quality deficit was demonstrated in the top three items, namely - personal achievement (-1.39); cleanliness of workout area (-1.06); and knowledgeable and professional fitness staff (-0.89). In fitness classes, a quality deficit was found in all quality sub-dimensions, except two Sociability items and two Benefits items with a quality surplus. The (P-I) gaps were found to be statistically significant across all items, with the exception of the following items: 'To have a good feeling'; 'Increasing fitness level'; 'Psychological benefits'; and 'Other customers having a positive impact on the experience'. Three items were found to show a statistically significant quality surplus, namely: 'Opportunities for social interaction'; 'Making friends'; and 'Increasing skill level'. A significant quality deficit was demonstrated by the following top three items - cleanliness of the studios (-1.35); personal achievement (-0.87); and condition of the equipment (-0.84).

To ensure that IPA and gaps analysis demonstrate meaningful results, the Pearson correlation between performance and importance of service attributes was applied. This was done with the aim of exploring whether frequent participants of classes differentiate between the concepts of service attribute performance and service attribute importance. The results for both fitness suites and fitness classes showed that there was a significant linear association between the mean performance and importance scores of the same quality attributes. However, since the correlation coefficient is not equal or close to +1 (which would indicate a perfect positive relationship), the mean performance and importance scores are not perceived by the respondents as interchangeable or as the same concepts.

Investigation of differences between more frequent users and less frequent users in fitness suites revealed that all attribute scores with statistically significant differences were higher in the case of more frequent users (i.e. those attending three or more times a week). This is with the exception of the attribute of inter-client interaction "Generally, other customers in the fitness suite follow rules and regulations" on which customers exercising once or twice a week scored higher than customers exercising three or more times a week. In fitness classes, all attribute scores with statistically significant differences were higher in case of more frequent users (i.e. those attending three or more times a week), with no exceptions.

A comparison between the frequent users of fitness suites who also attend fitness classes frequently (n=139) showed that the most frequent users (n=54) demonstrated statistically significant higher mean score across three outcome benefits attributes, compared to the ones exercising in a gym once or twice a week (n=85). It was also found that all significant attribute means for the frequent users of fitness suites who frequently attend classes (n=139) was higher than the means for the frequent users of fitness suites (n=349). This fact suggests that participating in fitness classes might have a contributory influence on the perceptions of physical and mental benefits which customers receive from using a fitness suite.

Similarly, the results of comparison between the frequent participants of fitness classes who also exercise in a fitness suite frequently (n=139) showed that the most frequent users who also exercised in a fitness suite frequently demonstrated statistically significant higher mean scores compared to the ones exercising in a gym once or twice a week. All significant attribute means for the frequent participants of fitness classes who frequently use a fitness suite (n=139) were higher than the means for the frequent participants of classes (n=312). This fact suggests that additional frequent use of a gym might have a contributory influence

on the perceptions of interaction with staff; physical benefits; sense of personal achievement; and building positive relations with other customers.

Key findings from comparative evaluation of perceptions from fitness suites and fitness classes were:

- the comparison of performance scores for fitness suites and fitness classes across seventeen quality attributes suggested that in absolute terms fitness classes outperform fitness suites on fourteen out of seventeen attributes;
- the largest differences in quality perceptions between two groups were revealed in the aspects of sociability and inter-client interaction: the attributes of making friends, opportunities for social interaction and other customers having a positive impact on the experience, with fitness classes participants scoring higher than fitness suite users;
- in terms of mean importance-performance score gaps across attributes within the quality dimensions, cleanliness of workout area showed the biggest gap for both fitness suites and fitness classes in physical environment, yet it is greater in the case of fitness classes;
- a comparative analysis of mean importance-performance score gaps suggests that in relative terms (i.e. taking into account importance) fitness classes outperform fitness suites on sixteen out of seventeen attributes and on all out of three dimensions;
- overall, members attending fitness classes provided better performance ratings across the attributes and the gap score were lower in comparison with the scores from fitness suite members.

Finally, the analysis of the relationship between quality sub-dimensions and overall customer satisfaction showed that in the case of fitness classes the strongest relationship was demonstrated by two sub-dimensions of physical environment - Ambience ($r = 0.735$) and Equipment ($r = 0.734$), which explained 54% of association with the overall satisfaction of each. In case of fitness classes, the strongest relationship was demonstrated by the sub-dimension of client-employee interaction ($r = 0.659$), which explained 43% of association with overall satisfaction.

CHAPTER NINE – DISCUSSION

9.1 Introduction

This section presents the discussion of the results of the study based on the data collected from the customers of twelve public sports centres managed by Kirklees Active Leisure (KAL). The discussion is structured around the main findings covered in Sections 9.2 - 9.5, and is presented in the order of the objectives of the study, i.e. from Objective One to Objective Four. Both contexts of fitness suites and fitness classes are embraced by each part of the discussion throughout the sections. The findings are considered in conjunction with the literature review which allowed a critical synthesis of the main results of the study with the results in the previous literature. Section 9.6 summarises the discussion and serves as a link to the final chapter of conclusions and recommendations.

9.2 Objective One

Objective 1: to investigate frequent customers' perceptions of service quality in public sports centres by using a customer satisfaction survey tool.

The investigation of frequent customers' perceptions of service quality was implemented through a customer satisfaction survey tool developed in consultations with the business development managers of KAL. Although KAL belongs to the public sector, the health and fitness services it provides are in direct competition with the commercial sector and, therefore, has been experiencing pressure to generate revenue, using a for-profit business model of operation. Quality management strategies became a tool adopted by public sector managers in order to bring services to a competitive standard comparable with those in the commercial sector (Robinson, 2004). Indeed, the move made by KAL in 2014 to become members of The Institute of Customer Service (ICS) was another step towards raising their competitive profile. However, the challenge of improving quality of services lies in the organisation's ability to effectively collect, interpret and address the feedback received from customers. In this respect, the main tool for collecting such feedback for KAL is the annual customer satisfaction survey, which from year to year has assisted the organisation in understanding the perceptions of customers towards the quality of services provided. For KAL, the results of their annual survey allowed for comparison with the previous years; identification of trends; and creating an action plan in alignment with the business objectives for the current year. Hence, the counterchallenge for improving quality of services comes

when the tools for collecting customer feedback require to be updated as it has an impact on the operations for setting targets and reporting on key performance indicators (KPI).

The above counterchallenge took place when developing a model for the study. The consultations with the business development managers aimed at reaching consensus between KAL business goals and the objectives of the research, with the intention of creating a tool that could be relevant and appropriate for use in their business operating environment. Thus, the relevance of questions for each of the two contexts for fitness suites and fitness classes, organisational sensitivity towards specific questions on areas of KAL business operation and the length of the questionnaire were major factors that influenced the final design of the customer satisfaction survey for this study. The survey for the study included measurement of both the performance and importance of quality attributes which allowed for collection of a set of completely new information from the customers. The literature showed that inclusion of the importance in measuring attitudes could help management in proper allocation of resources. This can happen through the establishing performance of which services is more important to customers (Crompton and MacKay, 1989). Oh and Parks (1997) expressed the view that those authors who advocate inclusion of importance are driven by the conceptual and realistic role of importance of different attributes in human-decision processes, whereas their opponents focus on statistical and methodological efficiency. Indeed, this study focused on the conceptual and realistic aspects of service quality measurement, which included using an adapted conceptual model of service quality and generating a new set of information for the decision-making in KAL. The realistic side of the method is also supported by the fact that an importance measurement is used for public sports and leisure centres in the National Benchmarking Service (Sport England 2017). Likewise, the gap analysis applied in this study was recommended for use in the fitness and leisure industry (in public sports centres in particular) due to its acceptability among practitioners, its simplicity, and tested validity (e.g. Liu et al. 2009).

The results related to the service quality perceptions were presented separately for fitness suites (n= 349) and fitness classes (n= 312) in Sections 8.4 - 8.5. The area of fitness suites presented a positive picture with more than a half of all service quality attributes (10 out of 17) belonging to the 'Keep up the good work' quadrant, characterised by perceived high performance and high importance. IPA identified three attributes with high importance and mean performance below mean average value, namely personal achievement (Valence), enjoying the atmosphere (Ambience) and other customers' respecting rules and regulations (Inter-Client interaction). Similarly, in fitness classes, the majority of attributes (8 out of 17)

were also in the quadrant 'Keep up the good work' and three items in the quadrant 'Concentrate here' personal achievement (Valence), the condition of the equipment (Equipment) and cleanliness of studios (Ambience).

Three service quality attributes which were in the quadrant 'Concentrate here' for fitness suites and fitness classes - enjoying the atmosphere; condition of the equipment; cleanliness of studios - form a part of the Physical Environment quality dimension. These findings relate to Liu et al.'s (2009) study that suggests that the performance of English public sports facilities in physical evidence is generally worse than in process and participants. Furthermore, this supports previous studies (Afthinos et al., 2005; Alexandris et al., 2004; Lentell, 2000), which emphasised the exceptional importance of the physical environment quality.

Despite the fact that the physical environment quality remains of paramount importance for customers, the results showed that the attribute of personal achievement, which appeared in 'Concentrate here' quadrant for both fitness suites and fitness classes, had comparably high importance with regard to the attributes of the physical environment quality, i.e. $M=9.08$ for fitness suites and $M=9.16$ for fitness classes. The attribute of personal achievement falls into the Valence sub-dimension and is, therefore, outside the provider's control. Robinson (2004) argued that although it is difficult for leisure facility managers to directly influence the factors outside their control, it is possible for them to exercise an indirect influence on smaller related factors and manage perceived risk. For this, it is necessary to have some insight in to the reasons for respondents scoring relatively low on the performance of this particular attribute ($M=7.70$ for fitness suites and $M=8.29$ for fitness classes), yet assigning high importance. Studies by Alexandris et al. (2004), Howat et al. (2008) and Lagrosen and Lagrosen (2007) advocated the inclusion of an outcome quality or benefits in the service quality model. Brady and Cronin (2001) introduced the sub-dimension of Valence within an outcome quality, which was meant to explain the attributes determining a customer's perceptions of the service (good or bad outcome), regardless of their evaluation of any other aspect of the experience. Thus, the purpose of the valence sub-dimension was to capture the influence of the 'unknown' factors within a service quality model (Polyakova and Mirza, 2015). However, in order to gain insight into the reasons behind the respondents scores and to suggest further action, it could be useful to categorise the unknown influences into several groups, for example: a) mood; b) whether customers take a passive or active position in the co-creation of service quality (Schembri and Sandberg, 2011); c) their level of self-awareness; and d) the nature of their motivations (e.g. intrinsic/extrinsic) (Thatcher, Thatcher, Day, Portas and Hood, 2009).

For fitness classes, IPA showed similar patterns to previous studies on English public sports centres (e.g. Liu and Hsu 2010), where Staff domain was in the quadrant 'Keep up the good work' and Cleanliness - in quadrant 'Concentrate here'. The analysis in Liu and Hsu (2010) suggested that Staff is a high-importance-performance factor, which means that satisfaction increases linearly depending on performance. Also, cleanliness was identified as a basic factor, which meant that customers rate this attribute as important, but it does not affect overall satisfaction when expectations are met or exceeded (see Kano et al. (1984) and Vavra (1997) for the classification of factors in the Three-Factor Theory). Similarly, Albayrak and Caber (2014) identified Staff as belonging to the 'Keep up the good work' quadrant, yet it was classified as an excitement factor, i.e. the factor that creates high customer satisfaction if it exists, but does not create dissatisfaction if it is not offered. For the excitement factors, importance increases when their performance is high, but they become unimportant when their performance is low.

Albayrak and Caber (2014) and Liu and Hsu (2010) employed the Penalty-reward-contrast analysis technique (PRCA), alongside IPA, in the health and fitness context. PRCA is applied under the assumption that service-quality attributes have an asymmetric influence on customer satisfaction, i.e. negative performance of an attribute might have a greater impact on overall satisfaction than positive performance of the same attribute, or its positive performance might have a greater effect on customer satisfaction than its negative performance. Yet, the fact that Albayrak and Caber (2014) and Liu and Hsu (2010) conducted research with samples from different types of facilities (i.e. a private fitness club and 254 public leisure centres) could be the reason for such perceptual differences. Moreover, IPA in this study showed that the quality perceptions of fitness suite users and fitness class participants differed; therefore, some inconsistencies in findings related to sports centres and fitness clubs could be addressed by acknowledging that these two groups of users have distinct quality perceptions.

9.3 Objective Two

Objective 2: to compare quality perceptions between two groups of frequent users - users of the fitness suite and users of fitness classes.

The key findings from a comparative evaluation of perceptions from the users of fitness suites and fitness classes revealed that the largest gap in the physical environment dimension for both fitness suites and fitness classes was the cleanliness of the workout area/studio, yet it was

greater in the case of the users of fitness classes. With regards to cleanliness of a facility Liu et al. (2009) established that "dirty facilities have a strong negative impact on customer satisfaction, although when the facilities are clean, it does not have a strong effect on customer satisfaction because it is considered to be a basic requirement or norm" (p.250). Liu et al.'s (2009) study also found that the largest gap was related to cleanliness (i.e. cleanliness of changing area). This suggested that facility managers should focus on the improvement of cleanliness and facility quality because they are shown as a weaknesses of the industry and are more important to customers.

Overall, the analysis of gaps for fitness suites revealed a quality deficit in all quality sub-dimensions except for two Sociability items. The three largest gaps were demonstrated by the attributes of personal achievement (-1.39), cleanliness of workout area (-1.06) and knowledgeable and professional fitness staff (-0.89). For fitness classes, cleanliness of the studios (-1.35), personal achievement (-0.87), and condition of the equipment (-0.84) were also in the top three largest gaps. These results show that alongside cleanliness, the attribute of personal achievement present a statistically significant quality deficit in both contexts of fitness suites and classes, which is greater in the case of the users of fitness suites.

The attribute of personal achievement (i.e. 'I feel I achieved what I wanted') was assigned high importance (9.08 and 9.16 for fitness suites and fitness classes respectively), similar to the physical environment in both fitness suites and fitness classes. In combination with the relatively large gap, this might indicate the area which requires closer attention from managers of sport facilities. As discussed in the previous section 8.9.3, although the valence sub-dimension (which the personal achievement attribute belongs to) was introduced to capture the influence of the 'unknown' on service quality perceptions, it is possible to seek indications which could help to dissect it. The comparison between the areas of fitness suites and fitness classes revealed statistically significant, yet small gaps in the attributes of improving personal fitness and increasing fitness level (for fitness suites), and improving personal fitness (for fitness classes). Interestingly, the only outcome benefits attribute that demonstrated a statistically significant and relatively large quality surplus was increasing skill level in fitness classes. Thus, these findings indicate a small but statistically significant level of dissatisfaction with physical benefits from both groups of respondents.

Previous literature (Smith et al., 2014; Tian-Cole and Crompton, 2003) suggested that factors which are outside of the service itself (and therefore falling under the definition of the valence sub-dimension) can include a customer's physique, the weather, nostalgia, escape or

socialising. Smith et al. (2014) argue that if customers exercise for fitness and are motivated by body or appearance-oriented reasons, their physique plays an important role in attaining key benefits and satisfaction. Smith et al.'s (2014) results showed that the customers' comfort with their own physique negatively mediated the relationship between staff interaction quality and outcome attainment. The theory of upward social comparison (Festinger, 1954) explains the process of an individual comparing themselves to another person on a specific criterion and perceives that they are inferior in that area. Smith et al. (2014) argue that customers might be continuously, consciously or unconsciously, comparing themselves to other customers on their physique. Yet, the comparison to a fit, good-looking member of staff can trigger the mechanism of upward social comparison, especially if the individual aims to improve their physique and appearance. Another explanation of dissatisfaction with attainment of one's fitness goals as well as with personal achievement comes from overestimation of self-control levels (Garon et al., 2015); when individuals fail to consistently maintain control over their initial decision towards exercising and a healthy lifestyle. Delays, procrastination and lack of willpower link to the circle of self-inflicted negative emotions, which ultimately, result in negative satisfaction with personal performance and service overall (Pedragosa et al., 2015).

Another gap between performance and importance revealed in this study was related to fitness staff being knowledgeable and professional. This gap was in the top five largest gaps in evaluations of both groups of users in fitness suites and fitness classes. Yet, in both cases this attribute was in 'Keep up the good work' quadrant in IPA. This is consistent with studies by Liu and Hsu's (2010) and Albayrak and Meltem Caber (2014) which provided evidence that staff constitutes one of the main strengths of the health and fitness industry. In the case of fitness suites, this gap (-0.89) was found to be greater than in the case of fitness classes (-0.32), yet it was comparable to the gap in the attribute of the condition of the equipment (-0.84) for the fitness classes. This difference in size of the gaps related to staff can be explained by the zone of tolerance theory (Johnston, 1995), which defines a range of service performances that customers consider satisfactory within their evaluation of service. The users of fitness suites and participants of fitness classes are likely to have different zones of tolerance towards the aspects of service, related to staff and physical environment (i.e. equipment). Liu and Hsu (2010) argue that the zone of tolerance is wider for the 'softer' aspects involving interactions with staff, yet it is narrower for the 'harder' aspects, i.e. physical environment and tangibles. Due to the fact that the two contexts - fitness suites and fitness classes - place different emphasis on staff and equipment (i.e. fitness suites are expected to be equipped with training machines allowing customers more autonomy when using them,

whereas fitness classes are designed to be staff-led), the customers' zone of tolerance can be wider for the area of main service emphasis. Also, the Three-Factor Theory could help to explain whether customers see the same service attributes differently in each of the two contexts.

Other findings of the study also support the role of contextual emphasis in the settings of fitness suites and fitness classes. The results showed that the largest differences in quality perceptions between the two groups were revealed in the attributes of sociability and inter-client interaction, namely the attributes of making friends, opportunities for social interaction and other customers having a positive impact on the experience, with fitness classes' participants scoring higher than fitness suites' users. These interestingly coincide with findings by Motschieder (2015) who suggested that usage of fitness suites is associated with socialising "exercising fleshy bodies" (p. 84). Yet, a temporary creation of own perceived space in a gym plays a large part of activity and facilitates a more 'individualised' experience of fitness suites users. Due to the fact that an individualised space forms the essential part of a workout, any disturbances to it could be considered undesirable. In contrast, the environment of fitness classes implies exercising in a group and sharing the space with other participants. Therefore, the lower scores of fitness suites' users can be a consequence of how they perceive social encounters during their workout and whether these encounters are viewed as interference to users' perceptually legitimate individual space in gym.

9.4 Objective Three

Objective 3: to identify if frequent use of one area contributes to the improvement in the customers' perception scores in another.

Investigation of differences between more frequent users and less frequent users in fitness suites revealed that all attribute scores with statistically significant differences were higher in the case of more frequent users (i.e. those attending three or more times a week). This is with the exception of the attribute of inter-client interaction "Generally, other customers in the fitness suite follow rules and regulations" on which the customers exercising once or twice a week scored higher than customers exercising three or more times a week. This can be explained by the fact that customers who exercise less frequently naturally come across fewer incidences of other customers disrespecting the rules and regulations than those who exercise more frequently, and is closely related to the concept of perceived 'individualised' space in the fitness suites (Motschieder 2015), and emphasises the value of minimising interference to the

users' space. Moreover, Hill and Green (2012) found that in fitness facilities, the relationship between social opportunities and frequency of attendance was negative which meant that "consumers who saw few social opportunities participated most" (p. 496).

Comparison between the frequent users of a fitness suite who also attended fitness classes frequently (n=139) showed that the most frequent users (n=54) demonstrated statistically significant higher mean scores across three outcome benefits attributes: improving personal fitness; increasing fitness levels; and psychological benefits, compared to the ones exercising in a gym once or twice a week (n=85). It was also found that all significant attribute means for the frequent users of fitness suites who frequently attend classes (n=139) was higher than the mean for the frequent users of fitness suites (n=349). This fact suggests that participating in fitness classes might have a contributing influence on the perceptions of physical and mental benefits which customers receive from using a fitness suite.

Similarly, the results of comparison between frequent participants of fitness classes who also exercise in fitness suite frequently (n=139) showed that the most frequent users who also exercised in fitness suite frequently demonstrated statistically significant higher mean scores compared to those exercising in a gym once or twice a week. All the significant attribute means for frequent participants of fitness classes who frequently use a fitness suite (n=139) were higher than the mean for frequent participants of classes (n=312). This fact suggests that additional frequent use of a gym might have a contributing influence on the perceptions of interaction with staff, physical benefits, sense of personal achievement and building positive relations with other customers.

However, the question remains whether it is the experience from a second setting that contributes to the higher scores or whether it is simply the consequence of increased summative participation (i.e. frequency of attendance). In this connection, the literature supports that frequency of attendance at a fitness facility is a form of action behaviour related to the concept of behavioural loyalty (Ferrand et al., 2010; Walsh et al., 2008). There are also links to customers' evaluations of quality (Hill and Green, 2012) and their satisfaction with services (Ferrand et al., 2010; Pedragosa et al., 2015).

There is little doubt that individuals who participate frequently in both settings become generally more experienced and competent users of a sports facility; they acquire experience of a wider range of service encounters which allows them to form multiple point of reference in terms of performance and importance of service quality attributes. Therefore, the way in

which they derive their judgements about service quality, their perceived level of control of the service process and the final outcome, may differ from those who have only experienced a sole setting. Thus, in order to identify specific inputs which influence perceived quality towards a particular fitness setting, it is important to consider customers' competence, control and their personal contribution to the service (Polyakova and Mirza 2016).

9.5 Objective Four

Objective 4: to explore the relationship between areas of perceived service quality and overall customer satisfaction in the case of frequent users.

The results of this study showed that the overall satisfaction with services was higher in the case of frequent users in each of the two contexts of fitness suites and fitness classes. Moreover, overall satisfaction scores were consistently higher amongst the participants of fitness classes, in comparison with the scores from the users of fitness suites. Previous literature indicated that customers satisfied with the services are likely to attend more frequently than those who are less satisfied (Ferrand et al. 2010). It was revealed that people with more life stress are more likely to be irregular exercisers (Jekauc et al., 2015). Moreover, the evidence found that individuals respond to stress differently depending on how long they have been exercising; newcomers usually experience more difficulties in maintaining exercise, while long-time exercisers respond to stress with greater exercise participation (Clark et al., 2011). Another study by Hooker et al. (2016) found that individuals who were unhealthy visited a fitness centre less frequently than healthy members.

Although there are a range of various factors that could affect frequency of attendance at sports centres, including satisfaction with the services, the particular focus of this study was to explore the relationship between overall customer satisfaction and service quality sub-dimensions. In the case of fitness suites, two sub-dimensions of physical environment Ambience ($r = 0.735$) and Equipment ($r = 0.734$) were found to have the strongest relationship with overall satisfaction, and each of the sub-dimensions explained more than half of association (54%) with the overall satisfaction. This finding is consistent with Alexandris et al. (2004) and Smith et al. (2014) who found that the physical environment quality has a significant influence on satisfaction. In addition to this, Liu et al. (2009) argued that aspects of the physical environment quality (i.e. cleanliness and facility quality) present weaknesses in the industry and require separate attention from the facility managers. Following Ambience and Equipment, Valence sub-dimension ($r = 0.583$) explained 34% of

association with satisfaction. Interestingly, this coincides with the findings by Alexandris et al. (2004) who suggested that the outcome dimension had the second strongest influence on satisfaction.

The exploration of the same relationship between overall customer satisfaction and service quality sub-dimensions in the case of fitness classes' participants showed that the strongest relationship was demonstrated by the sub-dimension of client-employee interaction ($r = 0.659$) which explained 43% of association with the overall satisfaction. It is associated with the results by Alexandris et al.'s (2004) who found that interaction quality has a significant, yet weak influence on satisfaction. According to Albayrak and Caber (2014), staff are "the sole service attribute which has the power to effect customers' overall satisfaction" (p.316). In the context of fitness classes, Valence ($r = 0.570$) explained 32.4% and Ambience ($r = 0.567$) explained 32.1% of association with satisfaction which is close to the association explained by Valence in the case of fitness suites (34%).

As the results showed, the physical environment plays an important role in explaining overall satisfaction in fitness suites, whereas interactions with staff are strongly related to satisfaction in fitness classes. This reiterates the point that fitness suites and fitness classes are two distinct contexts in which users perceive the same aspects of service quality differently. The users of both settings might pursue similar goals (i.e. physical or psychological), yet the dynamics of the two settings are inherently different. Thus, the activities in fitness suites are based around using equipment and space that determines an individual's experience, whereas fitness classes are group-based and rely on the fitness instructor delivering the main part of the service. This supports Ko and Pastore (2005) who suggested that the SSQRS model can be adapted to specific circumstances depending on the type of sports service (i.e. facility-based or group instruction-based) due to its ability to emphasise aspects relevant to the context (e.g. physical environment quality or interactions).

Some studies (e.g. Tsitskari et al., 2014; Vlachopoulos et al., 2008) suggested that exercise involvement can influence overall satisfaction with the service and, hence, more involved participants are more committed and satisfied. It should be mentioned that studies by Tsitskari et al. (2014) and Vlachopoulos et al. (2008) used a Modified Involvement Scale (MIS) which included such dimensions as social bonding, identity affirmation and identity expression; yet, did not take into account factual frequency of participation as it was not considered as a factor of involvement in the model.

9.6 Summary of discussion

This section presented a critical discussion of the primary and secondary findings revealed in this study. The discussion followed Objectives One to Four focussing on the frequent users of fitness suites and fitness classes. In general, the investigation into customers' perceptions of service quality revealed a competing challenge in public sports centres in terms of improving quality of services within their restricted potential to make changes to the organisational operations. It has proved that a method for evaluation of customers' perceptions about services needs to be realistic for the given context; acceptable among practitioners; as well as simple and valid.

The findings of the study revealed the exceptional importance of physical environment quality for both contexts of fitness suites and fitness classes. This was consistent with the previous literature that suggested that the performance of English public sports facilities in physical evidence is generally worse than in process and participants. Also, it was found that the attribute of personal achievement related to Valence was equally important for the users of both fitness suites and fitness classes and was, relatively, underperforming in both settings. The theory of upward social comparison (Festinger, 1954) and over-estimation of users' self-control can partly explain the negative satisfaction with one's performance and service overall.

Although the role of the valence sub-dimension in the service quality model is to capture the 'unknown', consideration of such factors as customers' moods and motivations, as well as their level of self-awareness can be useful for obtaining a real insight into the reasons behind the respondents' scoring. In addition, Penalty-reward-contrast analysis technique (PRCA) can offer a further understanding of whether users of fitness suites and fitness classes view the same attributes of service quality similarly or not (within the Three-Factor model).

This study revealed a gap between performance and importance related to the fitness staff being knowledgeable and professional, which was in top five largest gaps in evaluations of both groups of users in fitness suites and fitness classes (yet in both cases this attribute was in 'Keep up the good work' quadrant in IPA). This was consistent with the previous literature which provided evidence that staff constitute one of the main strengths of the health and fitness industry. The differences in gaps indicated that the users of fitness suites and participants of fitness classes are likely to have different zones of tolerance towards the aspects of service related to staff and physical environment. Due to the fact that the two

contexts - fitness suites and fitness classes - have different emphasis on staff and equipment (i.e. fitness suites are expected to be equipped with training machines allowing customers more autonomy when using them, whereas fitness classes are designed to be staff-led), customers' zone of tolerance can be wider for the area of main service emphasis.

The findings of the study support the role of contextual emphasis in the settings of fitness suites and fitness classes. The results showed that the largest differences in quality perceptions between the two groups were revealed in the attributes of sociability and inter-client interaction, namely the attributes of making friends, opportunities for social interaction and other customers having a positive impact on the experience, with fitness classes' participants scoring higher than fitness suites' users. This is due to the fact that a perceived individualised space forms the essential part of a workout in a fitness suite, whereas the environment of fitness classes implies exercising in a group and sharing the space with other participants. Hence, the lower scores of fitness suites' users can be a consequence of how they perceive social encounters during their workout and whether these encounters are viewed as interference to users' perceptually legitimate individual space in a gym.

The study suggests that participating in fitness classes might have a contributory influence on the perceptions of physical and mental benefits which customers receive from using a fitness suite, whereas additional to classes frequent use of a gym might have a contributory influence on the perceptions of interaction with staff, physical benefits, sense of personal achievement and building positive relations with other customers. Further investigation is still required to establish whether an experience from one setting contributes to the higher scores in another or whether it is just a consequence of increased density of participation (i.e. frequency of attendance). However, more frequent participants tend to be more experienced, competent users of a sports facility, with a history of a wider range of service encounters; therefore, they may derive their judgements about service quality differently from users who have only experienced a single setting.

Finally, physical environment plays an important role in explaining overall satisfaction in fitness suites, whereas interactions with staff are strongly related to satisfaction in fitness classes. This reiterates the point that fitness suites and fitness classes are two distinct contexts in which users perceive the same aspects of service quality differently. The users of both settings might pursue similar goals (i.e. physical or psychological), yet the dynamics of the two settings are inherently different.

CHAPTER TEN – CONCLUSIONS AND RECOMMENDATIONS

10.1 Introduction

This section concludes the study and is focused on revisiting the secondary and primary research findings. Key literature on perceived service quality and customer satisfaction in the fitness industry is revisited, establishing links to the findings of the study. The conclusions of the study are presented by objectives, from Objective One to Objective Four. They are followed by an assessment of the contributions of the study to theory and practice, as well as consideration of the research limitations. The Chapter concludes with recommendations for areas for further analysis; development of service quality models in the fitness industry; conceptual approaches to future research; and topics for further investigation.

10.2 Literature review revisited

The findings of the secondary research on customers' perceptions of service quality showed that previous studies have focused on general service quality models (e.g. Cronin and Taylor, 1992; Grönroos, 1988; Parasuraman, Zeithaml and Berry, 1988); others have developed or revised models for particular industries (Aldlaigan and Buttle, 2002; Ko and Pastore, 2004; Lam and Zhang, 1999; Martinez and Martinez, 2007). The model by Brady and Cronin (2001) has been revealed to have superiority with respect to earlier models, and it has been utilised in several studies of service quality in fitness (e.g. Alexandris et al., 2004; Ko and Pastore, 2005). The model was recommended for use in the service sector by Martinez and Martinez (2010), alongside the identification of the dimensions of service quality in the context of a particular industry.

Analysis of a series of studies (Carrillat, Jaramillo and Mulki, 2007; Gummesson, 2007; Kaul, 2007; Keillor, Hult and Kandemir, 2004; Kim and Jin, 2002; Martinez and Martinez, 2010; Morales and Ladhari, 2011; Schembri and Sandberg, 2011) indicated that there are a number of issues with the existing models. Among these issues are uncertainty of philosophical stance; lack of consideration of context; and 'legitimisation' of valence as a service quality attribute.

A number of studies (e.g. Brady and Cronin, 2001; Ladhari, 2008; Martinez and Martinez, 2008, 2010) suggested development of industry-specific models as they could be more adequate for the context of a particular industry. There are also examples of enriching generic service quality models with attributes specific to the fitness industry (e.g. Alexandris et al.,

2004; Ko and Pastore, 2005). Still, both generic and industry-specific models currently have various types of limitations, some of methodological character; others are of a more conceptual nature. Several recommendations for overcoming limitations of the fitness service quality models (Polyakova et al., 2012) were proposed.

As a concept which is closest to perceived service quality, customer satisfaction has been discussed from transactional (Anderson, 1994), psychological (Tam, 2004) and business-oriented (Johnson et al., 2002) points of view. Customer satisfaction has been identified as an antecedent of loyalty and long-term relationships with customers. This can influence consumer behavioural intentions and customer retention (Cronin et al., 2000); bringing opportunities of profit growth to firms (Reichheld 1993; Heskett et al. 1997). Indeed, there is evidence that customer satisfaction is linked to increased profits (Heskett and Schlesinger, 1994; 1997) and plays an important role in corporate strategy (Homburg et al., 2005). Some studies suggested that customer satisfaction is a mediator between service quality and loyalty and word-of-mouth (Seiders et al., 2005), whereas other argued that customer experience quality could better predict loyalty and word-of-mouth (Maklan and Klaus, 2011).

In the English public sports and fitness sector, customer satisfaction became a primary driver in quality management strategies, in order to achieve competitive standards in the commercial sector (Robinson, 2004). In previous literature it was found that customers satisfied with the services are likely to attend more often than those who are less satisfied (Ferrand et al. 2010), furthermore, people with more life stress are more likely to be irregular exercisers (Jekauc et al., 2015). On the other hand, studies (e.g. Tsitskari et al., 2014; Vlachopoulos et al., 2008) suggested that exercise involvement can influence overall satisfaction with the service and, hence, the more involved participants are, the more committed and satisfied they are likely to be. Grisseemann and Stokburger-Sauer (2012) argued that customers' satisfaction with their own performance can influence their overall satisfaction with the service company. In sports and fitness marketing research, the frequency of attendance at a fitness facility is considered to be a type of behavioural loyalty (Ferrand et al., 2010; Walsh et al., 2008) and has the potential to influence customers' evaluations of quality (Hill and Green, 2012) and their satisfaction with services (Ferrand et al., 2010; Pedragosa et al., 2015). Nevertheless, when it comes to differentiating customers according to their engagement with fitness activities (i.e. casual or serious leisure, see Stebbins 2007) frequency of attendance may have implications for customers' competence, control and their personal contribution to the quality of service (Polyakova and Mirza 2016).

10.3 Conclusions of the study

10.3.1 Objective One

Objective 1: to investigate frequent customers' perceptions of service quality in public sports centres by using a customer satisfaction survey tool.

The investigation of frequent customers' perceptions in the fitness setting of public sports centres showed that aspects of the physical environment and personal achievement as an outcome were equally important for the users of both contexts of fitness suites and fitness classes. The physical environment was suggested as the key element of provision in leisure service settings and in the context of fitness services in particular. Previous studies (Afthinos et al., 2005; Alexandris et al., 2004; Lentell, 2000) emphasised the importance of the physical environment quality in forming positive perceptions of fitness services. Also, Wakefield and Blodgett (2016) found that cleanliness influences feelings of pleasantness, trust and approachable behaviours. The analysis of gaps on the attributes of 'enjoying the atmosphere', 'condition of the equipment' and 'cleanliness of studios' showed that those elements had a relative quality deficit. This was consistent with Liu et al. (2009) who suggested that the performance of English public sports facilities in the dimensions of physical environment is generally worse than in process and participants. The findings also showed that the attribute of personal achievement had very high importance for the users of both settings, which resulted in the highest quality deficit, with regard to both fitness suites and fitness classes. To uncover the reasons why customers may have perceived themselves as underachieving and how it is related to the actual service settings further exploration of the users' motivations and experiences is required.

IPA demonstrated that despite the attribute performance of fitness staff being knowledgeable and professional, being relatively good in both contexts of fitness suites and fitness classes, a gap between performance and importance of this attribute was in the top five largest gaps. This does not present a call for an immediate action by the managers of the facilities; however, it does provide a clear sign that due to the importance of this attribute for the customers', the minor shortfalls have a significant impact on the users and on their overall experience. Also, this attribute was more important for the participants of classes as users of fitness suites rather than in fitness classes, which reflects differences in the perceived roles of fitness staff in these two contexts.

10.3.2 Objective Two

Objective 2: to compare quality perceptions between two groups of frequent users - users of fitness suites and users of fitness classes.

The results showed that the largest differences in quality perceptions between the two groups were in the attributes of sociability and inter-client interaction. The participants of fitness classes were generally more open to opportunities to socialise than users of fitness suites and provided higher performance scores for those areas. This is due to the fact that users of fitness suites seek to secure their 'temporarily owned' space in gym during their workout (Motschieder, 2015) rather than look for shared experiences. Thus, the results suggest that sociability is not seen as a desirable outcome by users of fitness suites, yet this may differ depending on the type of the facility and customers' motivations. With regard to this point, Hill and Green (2012) argued that socialising opportunities become less of a reason for driving repeat participation at fitness facilities for frequent users. According to Stebbins (2007), more regular users of facilities engage in serious leisure (as opposed to casual leisure); they are more motivated and more satisfied with the benefits of their participation and do not require opportunities to socialise. Thus, differentiation between users who are engaged in serious leisure and those who participate in activities on casual basis is required to adequately address issues related to sociability and inter-client interaction.

Users' participation in the fitness class environment implies that exercising in a group and sharing the space with other participants becomes a part of perceived quality. Moreover, due to the different nature of activities in fitness suites and fitness classes, staff have different levels of control when regulating the behaviour of other users, in to encourage users to follow rules and regulations. Thus, in the case of more autonomous workouts in fitness suites, there is a higher chance of users deviating from the expected behaviour and disturbing the 'temporarily owned' space of users, hence creating an undesirable experience for other users. In the case of deviation from expected behaviour, members of staff can try and recover a situation only by a reactive response to what has happened. This is unlike the situation in the context of staff-led group exercises in fitness classes: all participants take part in activities under the guidance of the fitness instructor. This creates a more controlled environment which places firmer expectations on the behaviour associated with the norms and regulations of customers.

10.3.3 Objective Three

Objective 3: to identify if the frequent use of one area contributes to the improvement in customers' perception scores in another.

The study provided indications that those customers who frequently take part in classes (in addition to the frequent use of the fitness suite) perceived their physical and mental benefits from a gym workout to be better than those who only used the fitness suite. The customers who frequently used the fitness suite (in addition to participating in classes) scored higher on their perceptions of interaction with staff, physical benefits, sense of personal achievement and building positive relations with other customers, than those who attended only classes frequently.

The literature suggested that frequency of attendance at the fitness facility is a form of action behaviour related to the concept of behavioural loyalty (Ferrand et al., 2010; Walsh et al., 2008). This also has links to customers' evaluations of quality (Hill and Green, 2012) and their satisfaction with services (Ferrand et al., 2010; Pedragosa et al., 2015). As individuals participate frequently in both settings, they generally become more experienced and competent users of a sports facility. This happens through them acquiring experience of a wider range of service encounters which allows for the formation of multiple points of comparison. These findings require further investigation, to ascertain whether an experience from a second setting contributes to the transition of members from casual leisure users into serious leisure participants (Stebbins 2007). In this transition, evolving changes in customers' competence, control and their personal contribution to the quality of service (Polyakova and Mirza 2016) need to be considered and evaluated.

10.3.4 Objective Four

Objective 4: to explore the relationship between areas of perceived service quality and overall customer satisfaction in the case of frequent users.

The study revealed that the physical environment plays a significant role in explaining overall satisfaction with fitness suites. Ambience and equipment were found to have the strongest relationship with overall satisfaction, which was consistent with the studies by Alexandris et al. (2004) and Smith et al. (2014). Hill and Green (2012) found that cleanliness positively influences participation at fitness facilities. This can be explained by the fact that having greater experience of a facility, frequent participants are aware of the "hygiene issues

surrounding these types of facilities and appreciate the cleanliness of such facilities rewarding managers with increased use" (Hill and Green, 2012, p.215).

On the other hand, interactions with staff are strongly related to satisfaction in fitness classes. This supports the findings of Alexandris et al.'s (2004) and Albayrak and Caber (2014) who suggested that interaction quality has a significant influence on satisfaction. The study by Brown and Fry (2014) investigated the link between members' perceptions of staff's behaviour; motivational climate; their own behaviours; and commitment to future exercise. They found that in a group-fitness setting staff behaviour may be an antecedent to members' exercise experiences by impacting their perceptions of the climate. Thus, members who perceived a higher caring, task-involving climate and lower ego-involving climate were more likely to report more caring behaviour among the staff and themselves as well as greater commitment to exercise. Although the implementation of those kinds of behaviours in daily routines is non-invasive and non-time consuming (i.e. greeting members; learning their names; offering constructive and technical feedback on particular movements), these aspects are often overlooked in staff training (Brown and Fry, 2011). Hence, from a practical perspective, the importance of interactions with staff poses questions about how employees can be trained and encouraged to cultivate a positive climate in exercise settings.

10.4 Contributions of the study

10.4.1 Theoretical contribution

1 - Recent academic literature on service quality (Brady and Cronin, 2001; Ko and Pastore, 2004; Lam et al., 2005; Ladhari, 2008; Martinez and Martinez, 2010) emphasised that tools for measuring customer perceptions need to be adequate to the specific contexts of the fitness industry (e.g. participatory nature of service, individual and group exercisers). The scales contextualised for the fitness industry allow for the capture of more accurate and sophisticated data and, hence, produce industry-specific attributes and relevant service-quality dimensions. Therefore, measuring customers' perceptions of fitness service quality in England became a focus of this study. The latest industry trends showed that multipurpose facilities providing a broad range of services are facing greater competition from fitness facilities which are highly specialised in one type of fitness activity. This draws away a significant number of members from multipurpose facilities (Algar, 2015b). Previously, studies measured customers' perceptions of quality in public sports centres and fitness clubs, and considered the service context as one multipurpose fitness offering. Thus, this research addresses a gap in measuring

perceptions across users of fitness suites and fitness classes as two distinct groups of customers.

2 - The review of service quality models showed that there is a range of approaches to investigating and measuring service quality in the sports and fitness industry. The model by Brady and Cronin (2001) has been utilised in several studies of service quality in fitness activity (e.g. Alexandris et al., 2004; Ko and Pastore, 2005). Martinez and Martinez (2010) suggested using Brady and Cronin's (2001) model alongside the identification of the dimensions of service quality in the context of a particular industry. This study adapted and applied the model by Ko and Pastore (2005) to measure service quality perceptions in the fitness industry which addressed the shortage in utilising fitness industry-specific models in this area.

3 - Another significant contribution to measuring customers' perceptions was integrating a measure of explicit attribute importance, alongside a measure of performance. Importance scores on individual attributes allow for a more precise calculation of sub-dimensions score (i.e. WPS) as well as providing opportunities for the variety of analysis (e.g. IPA, PRCA) to aid the managerial decision-making. Averaging performance scores across multiple items to derive an overall sub-dimension performance score (i.e. APS) ignores the relative importance of the items for customers. Some items with high performance scores might be relatively unimportant whereas other more important items might have low performance scores. The WPS incorporates both perceived performance and importance aspects when calculating an overall sub-dimension score.

10.4.2 Contribution to practice

1 - Some challenges encountered by this study indicated that there is an issue in doing quantitative research of a medium scale with local sports organisations since the latter are guided by annual KPIs and tightly controlled methods of communication with their customers. This fact identifies the lack of experience local sports facilities might have in engaging in collaborations with research institutions. In order to develop in this direction, the mechanisms of research-knowledge transfer (RKT) between public sports facilities and research organisations should be negotiated, tested and practised. From this perspective, the study contributes to the process of transferring research knowledge to the context of public sports facilities and developing their experience in RKT activity.

2 - As competition from the commercial sector rose, the public sports sector came under pressure to operate within for-profit business models and provide a competitive standard of service quality. Effective strategies for collection, analysis and interpretation of customers' feedback become even more important when addressing perceived inconsistencies in service provision. Generally, data from the annual customer satisfaction surveys forms the basis for the organisational KPI and, therefore, it is difficult to introduce any significant changes to the way it is collected, without interfering with the business evaluation processes. In this respect, the study contributed to the organisational process of revisiting tools for capturing customers' perceptions in public sports centres and updating the content included in the customer satisfaction survey. This study also assisted in semantic revision of the wording used in the survey questions.

3 - This study makes a contribution to practice by providing managers with classification of areas related to perceived service quality in the fitness industry. Depending on the type of sports service (i.e. facility-based or group instruction-based), the areas of Interactional quality, Outcome quality and Physical Environment quality (and their sub-dimensions) can provide valuable information for facility managers to enhance strategies for the resource allocation. Consideration of these three service quality areas together with the information of attendance frequency will enhance the targeting strategies of sports centres and ensure better satisfaction of the customers with greater potential for loyalty.

4 - Finally, the study sets implications for multipurpose public sports centres that currently do not differentiate between users of fitness suites and fitness classes when collecting data on their customer satisfaction. The evaluations of perceived service quality by these two user groups contribute to their overall satisfaction differently and, therefore, they need to be considered as users of two distinct fitness settings. The emphasis on the role of staff and physical environment quality proved to be different within the two settings; however, it supported findings of previous studies which identified those areas of fitness service as key in maintaining satisfaction of customers.

10.4.3 Publications and Conference Outputs:

Over recent years the author has developed a research portfolio in the area of this study. A list of the peer reviewed journal articles and conference outputs related to the thesis is provided below:

Journal publications

Polyakova, O. and Mirza, M. (2016). Service quality models in the context of the fitness industry. *Sport, Business and Management: An International Journal*, 6(3), 360-382.

Polyakova, O. and Mirza, M. (2015). Perceived service quality models: are they still relevant? *The Marketing Review*, 15(1), 59-82.

Conference outputs

Polyakova, O. and Ramchandani, G. (2015). "Exercise frequency and service quality perceptions in sport and fitness industry". *21st Sport Management Association in Australia and New Zealand (SMAANZ)*, Hobart, Tasmania, 25-27 November 2015.

Polyakova, O. (2014). "Motivation and perceived service quality in fitness industry: who is in control?", *Sport Management Association in Australia and New Zealand (SMAANZ) 20th Anniversary conference*, Melburn, 26-28 November 2014.

Polyakova, O., Mirza, M. and Jackson, H. (2012). "Service quality in fitness centres: literature review and further research", *Academy of Marketing Conference, Southampton University*, Southampton 25 July 2012.

10.5 Research limitations

There were several limitations to the design of this study.

- The research sample was derived from public sports centres located in the same geographical area in England, i.e. West Yorkshire, which can potentially present limitations to the generalisability of the findings. The fourteen sports centres included in the sample are located in the Kirklees Metropolitan area. Since 2014 KAL has been one of three sports and fitness centres across the UK that became members of The Institute of Customer Service (ICS). The fact that KAL manifested a commitment to improving the quality of their customer service through participation in the UK Customer Satisfaction Index (UKCSI) determined their willingness and need to participate in this study with the intention of seeking improved ways for measurement of their service quality.

- The users of KAL sports centres were only included in the study sample if they had membership and attended a fitness suite and/or fitness classes over the three months prior to

the data collection. This restriction was imposed in order to avoid contacting members who had not attended the sports centres for longer than three months, to prevent the possibility of prompting them to cancel their membership by this reminder communication.

- The dimension of Programme quality was excluded from the final model due to all of its sub-dimensions not matching one or more of the three inclusion criteria. The items related to the range of programme had relevance only to the context of fitness classes and did not provide a basis of comparison to fitness suites in terms of scheduled activities. Similarly, the sub-dimensions of operating time and information had a lack of potential to obtain exclusive information about each of the two contexts and rather referred to the overall context of a sports centre. Although this study intended to compare the contexts of fitness suites and fitness classes using the same instrument across corresponding dimensions, the Programme dimension can be beneficial for the studies looking at fitness classes as a stand-alone context.

- The relationship with KAL considerably restricted the researcher at the stage of the model development, due to the control which the organisation exercised over the research process. In the model development stage, the priority was a consensus between KAL business goals and the objective of the research with the intention to develop the tool appropriate for use in KAL's business operating environment. This, arguably, translated into a compromise between the practical context of business operations and the theoretical rigour of the tool. The inclusion criteria for the items in the measurement instrument were largely set by the demands of KAL (e.g. relevance, appropriateness and ability to follow up customers' feedback). Due to such restrictions, this research did not intend to inform the instrument with the insights of the customers through the qualitative study (i.e. interviews). Instead, the aim was to apply the adapted model in order to see relative differences in perceptions between users of fitness suites and participants of fitness classes.

The nature of the objectives and the philosophical paradigm led the researcher to the quantitative study design which to date has been the most frequently used in service research. It has previously been suggested that in order to better understand service exchange, value co-creation, and service systems, service research needs to expand beyond a positivistic paradigm (Tronvoll et al., 2011). Thus, rather than being a limitation of this study, the choice presents a topic of the wider debate about the future of the discipline. Nevertheless, the quantitative study design contributed to the replicability of the study for different geographical or sector samples.

10.6 Recommendations

Several recommendations are proposed by this study in the areas of further analysis; development of service quality models in the fitness industry; conceptual approaches to future research; and topics for further investigation. This study aimed to compare quality perceptions between two groups of frequent users in fitness suites and fitness classes and to explore the relationship between their perceptions of quality and overall customer satisfaction. Future studies could replicate the research with different samples of fitness participants using PRCA and Three-factor model in order to predict the influence of service quality dimensions on overall satisfaction scores.

10.6.1 Development of service quality models in the fitness industry

The study provides academics with recommendations for the development of future service quality models in the fitness industry. While several recommendations for overcoming the limitations of service quality models for the fitness industry were proposed (Polyakova et al., 2012), there is a need for a wider approach to the service quality conceptualisation in the area. The critique of generic service quality models and the subsequent call for industry-specific models suggest the development of principally new contextual models. Acknowledging service as the co-creation of experience and value between suppliers and customers (Arnould and Price, 1993; Kupers, 1998; Vargo and Lusch, 2008; Schembri and Sandberg, 2011) and the goal of this co-creation as fulfilment of customers' aspirations (Maklan and Klaus, 2011) can bring new light to the conceptualisation of service quality in the fitness industry. Service quality research needs to re-discover the meanings of service quality elements, such as outcome or valence, and establish conceptually new relationships between service quality in physical fitness and contextual industry-specific factors (McDougall and Levesque, 1994; Rust and Oliver, 1994; Schneider and Bowen, 1995; Lovelock, 1996; Brady and Cronin, 2001; Alexandris et al., 2004; Ko and Pastore, 2004; Hu et al., 2009; Szabó, 2010). In order to facilitate the shift to service-dominant logic, managers of fitness facilities need to revisit their tools for capturing customers' perceptions and update the areas included in customer satisfaction surveys as well as look closely at the wording used in the survey questions. Semantics presents a useful tool that can be utilised by managers to create a sense of collaborative culture and shared responsibility with their customers. This is a practical implication for the reconceptualisation of service quality in action as well as a culture change in sports and fitness services with the final aim of genuinely embracing the customers' voice.

10.6.2 Conceptual approaches to future research

It has previously been suggested that in order to better understand service exchange and service systems, service research needs to expand beyond a positivistic paradigm (Tronvoll et al. 2011). A qualitative insight is required in order to uncover the personal motivations of fitness users and their link to perceived importance and evaluations of certain service attributes. In the area of general service quality research, Zeithaml and Bitner (2003) suggested that psychological factors such as individuals' motivations and self-competence influence customers' perceptions of service and their satisfaction. In sports-related industries, the results of studies showed that motivation influences participation levels in recreational sports (Tsorbatzoudis et al., 2006). Taking into account customers' motivations for obtaining the potential benefits from a service, Lagrosen and Lagrosen (2007) identified factors of physical change, mental change and pleasure as service quality dimensions in the health and fitness industry. In contrast, the study by Afthinos et al. (2005) suggested that motivation is not important in determining customers' desires for service provided by fitness centres. However, Afthinos et al. (2005) did not investigate whether motivations influence assessment of the perceived importance of desired service aspects. Previous literature also indicated that people with more life stress are more likely to be irregular exercisers (Jekauc et al., 2015) and individuals who are unhealthy visit a fitness centre less frequently than healthy members (Hooker et al. 2016). To understand what creates wellbeing for users of fitness services, future studies should depict the potential influences of valence on outcome benefits and explore what impact this has on customers' feelings of self-realisation.

10.6.3 Frequency of attendance and involvement in exercise

The results of the study supported findings from previous literature that frequency of attendance at a fitness facility is directly related to overall satisfaction (Ferrand et al. 2010). Yet, the frequency of attendance was not considered by the studies assessing influence of involvement in exercise on customer satisfaction (e.g. Tsitskari et al., 2014; Vlachopoulos et al., 2008). Although frequency is considered to reflect density of participation rather than a developed pattern of behaviour (Verplanken and Melkevik, 2008), it can be argued that frequent participants tend to be more experienced and more competent users of a sports facility, with a history of a wider range of service encounters. This experience shapes the way in which frequent users derive their judgements about service quality. Inclusion of such factor as frequency of attendance alongside assessment of users' exercise involvement will help to

understand the role that density of attendance plays in creating participation habits and supporting customers in becoming experienced users of the fitness services.

10.6.4 Co-creation of quality in fitness services

A further recommendation is that future studies need to investigate the impact of customers' co-creation across individual fitness service dimensions on overall service quality perceptions. It has been previously suggested that the degree of co-creation can act as an antecedent of competitive advantage as it affects customer satisfaction, customer loyalty and service expenditure (Grissemann and Stokburger-Sauer, 2012; Chathoth et al., 2013). Thus, exploration of a link between customers' co-creation, their experience, and service quality perceptions will fill the theoretical gap in the existing body of literature and serve as a basis for future research on the impact of co-creation in other sectors of fitness services. This will also provide managers of fitness facilities with the tools to capture the value that customers assign to their role in terms of co-creating service quality in the context of fitness activity (Polyakova and Mirza, 2015).

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Appendix A. Thematic analysis of service quality dimensions in the context of fitness industry

Dimensions	Authors						
Personnel	Alexandris et al.	Chang & Chelladurai	Kim & Kim	Ko & Pastore	Lagrosen & Lagrosen	Lam et al.	Yildiz
Employee attitude	+	+	+	+		+	+
Employee reliability, responsiveness to complaints	+	+	+	+		+	+
Privacy of members information			+				+
Presentable and neat appearance						+	+
Feedback to members about their development		+					+
Provision of good motivation for members							+
Prompt service	+	+					
Personal approach	+	+		+		+	
Knowledgeable and skilful	+		+	+		+	+
Work enthusiastically	+						
Physical environment	Alexandris et al.	Chang & Chelladurai	Kim & Kim	Ko & Pastore	Lagrosen & Lagrosen	Lam et al.	Yildiz
Adequate space/layout	+		+	+	+	+	
Locker room			+			+	+
Brightness			+				
Cleanliness	+		+	+		+	+
Modern	+		+	+	+	+	+

facilities/equipment							
Professional looking							+
Accessibility of facility/Convenience of location			+			+	+
Security			+	+		+	+
Temperature and illumination						+	+
Attractive facilities/nice atmosphere	+					+	
Good condition/availability of equipment				+		+	
Social environment	Alexandris et al.	Chang & Chelladurai	Kim & Kim	Ko & Pastore	Lagrosen & Lagrosen	Lam et al.	Yildiz
Number of participant groups in the programme						+	+
Interaction with other clients		+		+	+		
Social opportunity			+	+			
Other customers do not affect the service badly(only positive)	+			+			
Pleasant social environment					+		
Supporting services	Alexandris et al.	Chang & Chelladurai	Kim & Kim	Ko & Pastore	Lagrosen & Lagrosen	Lam et al.	Yildiz
Consultation with specialists							+
Appropriate background music			+			+	+
Child care						+	+
Food and drink			+				+

services							
First aid for ailment							+
Grooming necessities provided			+				
Diverse /up-to-date information available			+	+			
Wide range of services		+					
Availability of various methods of communication				+			
Programme	Alexandris et al.	Chang & Chelladurai	Kim &Kim	Ko & Pastore	Lagrosen & Lagrosen	Lam et al.	Yildiz
Timely announcements							
Appropriate timing of programmes		+		+		+	
Rich programme content						+	
Programme diversity		+	+	+		+	
Operating time				+		+	
Programmes are attractive				+			
Programme availability at appropriate level						+	
Outcome	Alexandris et al.	Chang & Chelladurai	Kim &Kim	Ko & Pastore	Lagrosen & Lagrosen	Lam et al.	Yildiz
Energy	+				+		
Health	+				+		
Psychological well-being	+				+		
Mood	+				+		

Fitness level/physical ability	+			+	+		
Valence				+			
Pleasure (social and physical)					+		
Change in appearance					+		
Service quality		+					

Source: Polyakova and Mirza (2016). Polyakova, O., and Mirza, M. T. (2016). Service quality models in the context of the fitness industry. *Sport, Business and Management: An International Journal*, 6(3), 381-382.

Appendix B. Summary of sports market segments, Sport England

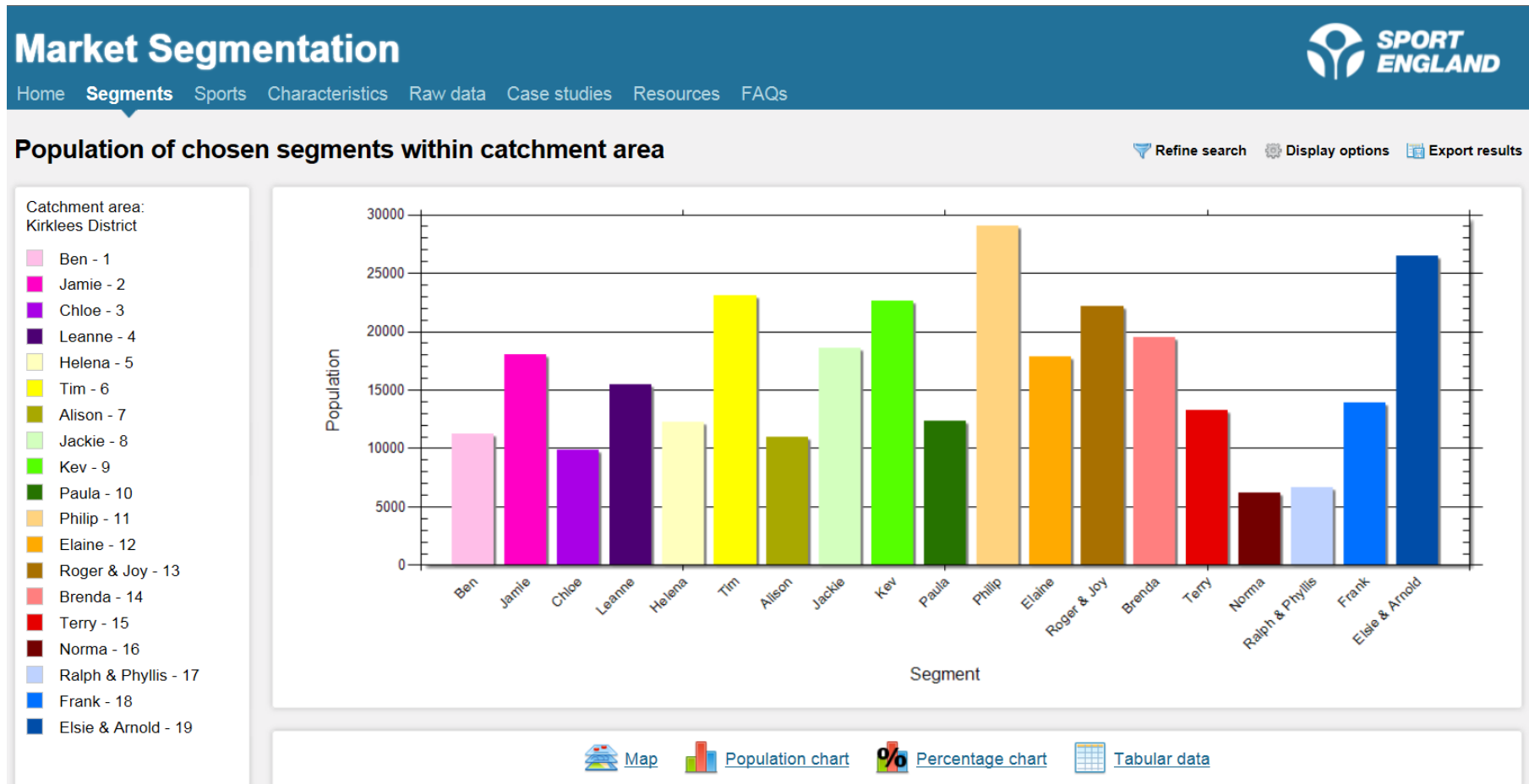


Sports Market Segments

Interactive segmentation tool: <http://segments.sportengland.org>

Segment name and description	Segment characteristics	Main age band	Socio econ	Eng Pop		Media and Communications	Key brands	Top Sports (played at least once a month) and sporting behaviour
				1x30	% Eng Pop			
Ben Competitive Male Urbanites	Male, recent graduates, with a 'work-hard, play-hard' attitude Graduate professional, single	18-25	ABC1	69%	4.9%	Ben is a heavy internet user, using it for sport news, personal emails, social networking and buying films, games and tickets. He is highly responsive to internet advertising.		Ben is a very active type and takes part in sport on a regular basis. He is the sportiest of the 19 segments. Ben's top sports are football (33%), keep fit gym (24%), cycling (18%), athletics including running (15%) and swimming (13%).
Jamie Sports Team Lads	Young blokes enjoying football, punts and pool Vocational student, single	18-25	C2DE	59%	5.4%	Jamie is a prolific mobile phone user and as uses this as a primary source of information. He likes to text rather than talk, and uses 3G for sports results and sms text information services.		Jamie is a very active type that takes part in sport on a regular basis. Jamie's top sports are football (28%), keep fit and gym (22%), athletics including running (12%), cycling (12%) and swimming (10%).
Chloe Fitness Class Friends	Young image-conscious females keeping fit and trim Graduate professional, single	18-25	ABC1	56%	4.7%	Chloe is a heavy internet and mobile phone user. She uses her mobile to keep in contact with friends and family, preferring this to her landline. Chloe has a new 3G phone which provides internet access but is still likely to use text as her first source of information.		Chloe is an active type that takes part in sport on a regular basis. Chloe's top sports are keep fit gym (28%), swimming (24%), athletics including running (14%), cycling (11%) and equestrian (5%).
Leanne Supportive Singles	Young busy mums and their supportive college mates Student or FT vocational, likely to have children	18-25	C2DE	42%	4.3%	Leanne is a light internet user and a heavy mobile phone user, using this instead of a landline to contact friends. She uses sms text services and also entertainment features on her mobile. Leanne's mobile is likely to be pay-as-you-go and she responds to text adverts.		Leanne is the least active segment of her age group. Leanne's top sports are keep fit gym (23%), swimming (18%), athletics including running (9%), cycling (5%) and football (4%).
Helena Career Focused Female	Single professional women, enjoying life in the fast lane Full time professional, single	26-45	ABC1	53%	4.6%	Helena always has her mobile and PDA on hand so that she is contactable for work and social calls. She is a heavy internet user, but mainly from home, and uses this as her primary source of information.		Helena is a fairly active type that takes part in sport on a regular basis. Helena's top sports are keep fit gym (26%), swimming (22%), cycling (11%), athletics including running (9%), and equestrian (3%).
Tim Settling Down Males	Sporty male professionals, buying a house and settling down with partner Professional, may have children, married or single	26-45	ABC1	62%	8.8%	Tim's main source of information is the internet - he uses this for information on property, sports and managing his finances. He is a heavy mobile phone user and likes to access information 24/7. Tim will often buy things online and is relatively likely to use sms text alerts and 3G services.		Tim is an active type that takes part in sport on a regular basis. Tim's top sports are cycling (21%), keep fit gym (20%), swimming (15%), football (13%) and golf (7%).
Alison Stay at Home Mums	Mums with a comfortable, but busy, lifestyle Stay-at-home mum, children, married	36-45	ABC1	55%	4.4%	Alison is a medium TV viewer and may have a digital package, but is unlikely to respond to TV advertising. She is a medium internet user and is unlikely to respond to internet advertising, but will use it as a source of information to aid her decision-making. She has a pay-as-you-go mobile for emergencies, but prefers to use her landline.		Alison is a fairly active segment with above average levels of participation in sport. Alison's top sports are: keep fit gym (27%), swimming (25%), cycling (12%), athletics including running (11%), and equestrian (3%).
Jackie Middle England Mums	Mums juggling work, family and finance Vocational job, may have children, married or single	36-45	C1C2D	47%	4.9%	Jackie is a medium TV viewer, enjoying soaps, chat shows and dramas, and has a review digital channels. She is a light and cautious internet user, but has been encouraged by her children's prolific usage and is becoming more confident herself.		Jackie has above average participation levels in sport, but is less active than other segments in her age group. Jackie's top sports are keep fit gym (22%), swimming (20%), cycling (9%), athletics including running (8%), and badminton (2%).
Kev Pub League Team Mates	Blokes who enjoy pub league games and watching live sport Vocational job, may have children, married or single	36-45	DE	43%	5.9%	Kev is a heavy TV viewer, likely to have a digital or cable package for extra sports coverage. He is a heavy radio listener and is likely to favour local commercial stations. Kev uses his mobile phone for social reasons but will not respond to text adverts.		Kev has above average levels of participation in sport. Kev's top sports are keep fit gym (14%), football (12%), cycling (11%), swimming (10%) and athletics including running (5%).
Paula Stretched Single Mums	Single mums with financial pressures, childcare issues and little time for pleasure Job seeker or part time low skilled worker, children, single	26-45	DE	36%	3.7%	Paula is a heavy TV viewer, enjoying quiz and chat shows, reality TV and soaps. She is likely to have a digital or cable package. Paula does not have internet access at home, and is a heavy mobile phone user, although this is likely to be pay-as-you-go.		Paula is not a very active type and her participation is lower than that of the general adult population. Paula's top sports are keep fit gym (18%), swimming (17%), cycling (5%), athletics including running (4%) and football (3%).
Philip Comfortable Mid-Life Males	Mid-life professional, sporty males with older children and more time for themselves Full-time job and owner-occupier, children, married	46-55	ABC1	51%	8.7%	Philip is a medium TV viewer, likely to have digital and use interactive services for sports and business news. He is a heavy radio listener. Philip is comfortable purchasing over the phone and internet, but is unlikely to respond to sms text alerts.		Philip's sporting activity levels are above the national average. Philip's top sports are cycling (16%), keep fit gym (15%), swimming (12%), football (9%), and golf (8%).
Elaine Empty Nest Career Ladies	Mid-life professionals who have more time for themselves since their children left home Full-time job and owner-occupier, married	46-55	ABC1	43%	6.1%	Elaine is a light TV viewer, loyal to mainstream terrestrial channels. Elaine is a moderate and increasing internet user, and is more internet-savvy than her peers. She appreciates the value of more sources of information and will browse news and lifestyle sites.		Elaine's sporting activity levels are similar to the national average. Elaine's top sports are keep fit gym (21%), swimming (18%), cycling (7%), athletics including running (3%) and tennis (2%).
Roger & Joy Early Retirement Couples	Free-time couples nearing the end of their careers Full-time job or retired, married	56-65	ABC1	38%	6.8%	Roger and Joy are medium TV viewers and heavy radio listeners. They regularly read the Times of Daily Telegraph, and a local paper. They have increased their use of the internet and may now have access to it at home.		Roger and Joy are slightly less active than the general population. Roger and Joy's top sports are keep fit gym (13%), swimming (13%), cycling (8%), golf (5%), and angling (2%).
Brenda Older Working Women	Middle aged ladies, working to make ends meet Part-time job, married	46-65	C2DE	29%	4.9%	Brenda is a heavy TV viewer and is likely to respond to TV advertising. She is a medium radio listener, preferring local commercial stations. Brenda rarely has access to the internet, and is an infrequent mobile user. She enjoys reading the Mirror or the Sun.		Brenda is generally less active than the average adult. Brenda's top sports are keep fit gym (15%), swimming (13%), cycling (4%), athletics including running (2%) and badminton (1%).
Terry Local 'Old Boys'	Generally inactive older men, low income, little provision for retirement Job Seeker, married or single	56-65	DE	26%	3.7%	Terry is a high TV viewer, both at home and in the pub, particularly enjoying live sports coverage. He reads the tabloids on a daily basis. Terry does not use the internet, and does not feel he is missing out. He is unlikely to have a mobile phone.		Terry is generally less active than the average adult. Terry's top sports are keep fit gym (8%), swimming (6%), cycling (6%), angling (4%), and golf (4%).
Norma Late Life Ladies	Older ladies, recently retired with a basic income to enjoy their lifestyles Job seeker or retired, single	56-65	DE	23%	2.1%	Norma is a high TV viewer, enjoying quiz shows, chat shows, soaps and religious programmes. Most new technology has passed her by, having no internet access or mobile phone, but she uses her landline to call her family.		Norma is generally less active than the average adult. Norma's top sports are keep fit gym (12%), swimming (10%), cycling (2%), bowls (1%) and martial arts/ combat (1%).
Ralph & Phyllis Comfortable Retired Couples	Retired couples, enjoying active and comfortable lifestyles Retired, married or single	66+	ABC1	28%	4.2%	Ralph and Phyllis are medium to light TV viewers, preferring to be out and about instead. They are unlikely to have access to the internet, although it is something they are considering. They read the newspaper daily, either the Daily Telegraph or Times.		Ralph and Phyllis are less active than the average adult, but sportier than other segments of the same age group. Ralph and Phyllis's top sports are keep fit gym (10%), swimming (9%), golf (7%), bowls (4%), and cycling (4%).
Frank Twilight Years Gent	Retired men with some pension provision and limited exercise opportunities Retired, married or single	66+	C1C2D	21%	4.0%	Frank is a heavy TV viewer and enjoys watching live sport and notices TV advertising, which he is influenced by. He does not use the internet and is nervous of computers. Frank reads a newspaper most days, either the Daily Mail or Express. He does not have a mobile phone.		Frank is generally much less active than the average adult. Frank's top sports are golf (7%), keep fit gym (6%), bowls (6%), swimming (6%) and cycling (4%).
Elsie & Arnold Retirement Home Singles	Retired singles or widowers, predominantly female, living in sheltered accommodation Retired, widowed	66+	DE	17%	8.0%	Elsie and Arnold are heavy TV viewers, enjoying quiz shows, religious programmes and old films. They generally do not have access to the internet or use a mobile phone, and only use their landline to call family.		Elsie and Arnold are much less active than the average adult. Their top sports are keep fit gym (10%), swimming (7%), bowls (3%), golf (1%) and cycling (1%).

Appendix C. Population of sports market segments in Kirklees District



Appendix D. Survey logic file



Your health and fitness centre: what makes you tick

, we really appreciate your input. Please note that the focus of this survey is on fitness services (i.e. fitness suite and fitness classes). In order to be included in the prize draw and have opportunity to win up to £100 cash, please complete by pressing the 'Submit' button at the end of the survey.

Which KAL site do you use most frequently?


- Batley Baths and Recreation Centre
- Batley Sports and Tennis Centre
- Colne Valley Leisure Centre
- Deighton Sports Arena
- Dewsbury Sports Centre
- Holmfirth Pool and Fitness Centre
- Huddersfield Sports Centre
- Lockwood Park Health and Fitness Club
- Scissett Baths and Fitness Centre
- Spenborough Pool and Sports Complex
- Stadium Health and Fitness Club
- Whitcliffe Mount Sports Centre

Completed:

Your health and fitness centre: what makes you tick

How often do you use the following activities?

	Never	A few times a year	Monthly	1 or 2 times a week	3 or more times a week
Fitness Suite	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fitness Classes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Completed: 

Your health and fitness centre: what makes you tick

As a frequent customer of _____, please can you help us to understand the details about its various aspects of the service provision, such as exercise programmes, staff and other customers.

You will be offered two sets of questions at a time.

In the first set of questions please express to what extent you agree with the statements by using the scale: 1 - Strongly Disagree and 10 - Strongly Agree.

The second set of questions will ask you how important the aspects are for you personally. Please indicate the importance of each aspect using the scale: 1 - Not important at all and 10 - Very important.

To what extent do you agree with the following statements about exercise programmes in _____?

	Strongly disagree 1	2	3	4	5	6	7	8	9	Strongly agree 10
There is a good range of fitness classes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The individual programme developed for me by the personal trainer is appropriate for me	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The fitness programme that I use in the fitness suite is appropriate for me	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

How **important** for you are the following aspects of exercise programmes in _____?

	Not important at all 1	2	3	4	5	6	7	8	9	Very important 10
Good range of fitness classes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Appropriateness of the individual programme developed for me by the personal trainer	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Appropriateness of the fitness programme that I use in the fitness suite	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Completed: 

Your health and fitness centre: what makes you tick

To what extent do you agree with the following statements about the staff in _____?

	Strongly disagree 1	2	3	4	5	6	7	8	9	Strongly agree 10
Personal trainers in the fitness suite are very knowledgeable and professional	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fitness instructors leading classes are very knowledgeable and professional	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Staff members in the fitness suite are friendly	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fitness instructors leading classes are friendly	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Staff members in the fitness suite are always willing to help	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fitness instructors leading classes are always willing to help participants	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

How **important** for you personally are the following aspects related to the staff in _____?

	Not important at all 1	2	3	4	5	6	7	8	9	Very important 10
Knowledgeable and professional personal trainers in the fitness suite	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Knowledgeable and professional fitness classes instructors	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Friendly staff in the fitness suite	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Friendly fitness class instructors	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Staff members in the fitness suite who are always willing to help	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Class fitness instructors who are always willing to help	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Completed:



Your health and fitness centre: what makes you tick

To what extent do you agree with the following statements about other customers in _____?

	Strongly disagree 1	2	3	4	5	6	7	8	9	Strongly agree 10
My experience is enhanced by other customers in the fitness suite	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My experience is enhanced by other customers in fitness classes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Generally, other customers in the fitness suite follow rules and regulations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Generally, other customers in fitness classes follow rules and regulations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

How **important** for you are the following aspects related to other customers in _____?

	Not important at all 1	2	3	4	5	6	7	8	9	Very important 10
Other customers having a positive impact on my experience in the fitness suite	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other customers having a positive impact on my experience in the fitness classes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other customers' respect for the rules and regulations in the fitness suite	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other customers' respect for the rules and regulations in in the fitness classes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Completed: 

Your health and fitness centre: what makes you tick

To what extent do you agree with the following statements about the results that you achieve through using _____?

	Strongly disagree 1	2	3	4	5	6	7	8	9	Strongly agree 10
Going to the fitness suite helped me to improve my personal fitness	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fitness classes helped me to improve my personal fitness	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My fitness level has increased from using the fitness suite	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My fitness level has increased from participating in classes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I get psychological benefits from using the fitness suite	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I get psychological benefits from going to the classes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My skill level has increased from using the fitness suite	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My skill level has increased from going to the classes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

How **important** for you are the results that you achieve through using _____?

	Not important at all 1	2	3	4	5	6	7	8	9	Very important 10
Improving my personal fitness through using the fitness suite	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Improving my personal fitness through participating in the fitness classes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Increasing fitness level through using the fitness suite	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Increasing fitness level from participating in the classes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Psychological benefits from using the fitness suite	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Psychological benefits from participating in the classes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Increasing skill level through using the fitness suite	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Increasing skill level from participating in the classes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Completed: 

Your health and fitness centre: what makes you tick

To what extent do you agree with the following statements?

	Strongly disagree 1	2	3	4	5	6	7	8	9	Strongly agree 10
I have achieved what I wanted from using the fitness suite	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have achieved I wanted from participating in the fitness classes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I usually have a good feeling after using the fitness suite	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I usually have a good feeling after participating in the fitness classes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Completed:



Your health and fitness centre: what makes you tick

How **important** for you are the following?

	Not important at all 1	2	3	4	5	6	7	8	9	Very important 10
To achieve what I want from using the fitness suite	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
To achieve what I want from participating in the fitness classes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
To have a good feeling after using the fitness suite	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
To have a good feeling after participating in the fitness classes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Completed: 

Your health and fitness centre: what makes you tick

To what extent do you agree with the following statements about the social environment in _____? social environment in _____?

	Strongly disagree 1	2	3	4	5	6	7	8	9	Strongly agree 10
The fitness suite provided me with many opportunities for social interaction	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The fitness classes provided me with many opportunities for social interaction	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I made friends in the fitness suite	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I made friends in the fitness classes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

How **important** for you are the following aspects of the social environment in _____?

	Not important at all 1	2	3	4	5	6	7	8	9	Very important 10
Opportunities for social interaction in the fitness suite	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Opportunities for social interaction in the fitness classes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Making friends in the fitness suite	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Making friends in the fitness classes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Completed: 

Your health and fitness centre: what makes you tick

To what extent do you agree with the following statements about the general atmosphere in _____? about the general atmosphere in _____?

	Strongly disagree 1	2	3	4	5	6	7	8	9	Strongly agree 10
The fitness suite is clean and well maintained	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Class studios are clean and well maintained	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I enjoy the atmosphere in the fitness suite	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I enjoy the atmosphere in the class studios	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

How **important** for you are the following aspects of the general atmosphere in _____?

	Not important at all 1	2	3	4	5	6	7	8	9	Very important 10
The fitness suite is clean and well maintained	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Class studios are clean and well maintained	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Enjoying the atmosphere in the fitness suite	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Enjoying the atmosphere in the class studios	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Completed: 


Your health and fitness centre: what makes you tick

To what extent do you agree with the following statements about the equipment in _____?

	Strongly disagree 1	2	3	4	5	6	7	8	9	Strongly agree 10
A variety of exercise equipment is available in the fitness suite	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
A variety of fitness equipment is available during the fitness classes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The equipment provided in the fitness suite is in good, usable condition	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The equipment provided during the fitness classes is in good, usable condition	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

How **important** for you are the following aspects related to the equipment in _____?

	Not important at all 1	2	3	4	5	6	7	8	9	Very important 10
The variety of exercise equipment in the fitness suite	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The variety of fitness equipment in the fitness classes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The condition of the equipment in the fitness suite	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The condition of the equipment in the fitness classes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Completed: 

Your health and fitness centre: what makes you tick

The following questions will ask you for details about your general satisfaction with the services at _____.

Please rate your overall satisfaction with

	Very Poor 1	2	3	4	5	6	7	8	9	Excellent 10
Fitness suite	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fitness classes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please give a suggestion about one aspect that _____ can improve.

How would you rate the overall value for money when using _____?

Very Poor 1	2	3	4	5	6	7	8	9	Excellent 10
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

To what extent do you agree with the following statement:
"I am treated as a valued customer?"

Strongly disagree 1	2	3	4	5	6	7	8	9	Strongly agree 10
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

What does being treated as a valued customer mean to you?

How likely are you to recommend _____ to your friends, family or colleagues?

Not likely at all 1	2	3	4	5	6	7	8	9	10	Very likely 11
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Completed: 

Appendix E. Invitation E-mail to Participate in the Research

Dear [Name of customer], we need to know your opinion.



The University of Huddersfield and the **Sport Industry Research Centre** at Sheffield Hallam University are working together with Kirklees Active Leisure (KAL) to understand customers' views on quality in the health and fitness industry. The research project is exploring customers' perceptions of the quality of the service delivered in the health and fitness industry.

The research is focused on exploring the opinion of customers using fitness facilities and services (i.e. the fitness suite and fitness classes), and how important each aspect is to each person's experience.

The survey will take up to 10 minutes of your time and your time and your input will be greatly appreciated. The answers you give will be treated confidentially, so please feel free to express your opinions. The data collated will be analysed in collaboration with the two research institutions, and will enable KAL to improve the service provision.

To complete the survey, please click here

[Your health and fitness centre: what makes you tick](#)

By completing the survey, you will be entered into a draw to win a cash prize up to £100.

1st prize - **£100**

2nd prize - **£50**

3rd prizes - **£25 x 2**

Your contribution to the research project is greatly appreciated.

Yours sincerely

Kirklees Active Leisure, in collaboration with
University of Huddersfield and Sport Industry Research Centre, Sheffield Hallam University

If you wish to opt-out from receiving ALL KAL emails, including our regular updates and offers, please click on the following link: [Remove from list](#)

Appendix F. Survey results (descriptive)

KAL Project final 08.04

[F2], we really appreciate your input. Please note that the focus of this survey is on fitness services (i.e. fitness suite and fitness classes). In order to be included in the prize draw and have opportunity to win up to £100 cash, please complete by pressing the 'Submit' button at the end of the survey.

	Response total
Title	680
Forename	680
Surname	680
Gender	674
Age	680
Email	680

Statistics based on 680 respondents;

Which KAL site do you use most frequently?

	Response percent	Response total
Batley Baths and Recreation Centre	2.21%	15
Batley Sports and Tennis Centre	5.15%	35
Colne Valley Leisure Centre	13.09%	89
Deighton Sports Arena	0.88%	6
Dewsbury Sports Centre	15.44%	105
Holmfirth Pool and Fitness Centre	10.15%	69
Huddersfield Sports Centre	16.77%	114
Lockwood Park Health and Fitness Club	7.79%	53
Scissett Baths and Fitness Centre	6.47%	44
Spensborough Pool and Sports Complex	6.03%	41
Stadium Health and Fitness Club	11.18%	76
Whitcliffe Mount Sports Centre	4.85%	33

Statistics based on 680 respondents;

To what extent do you agree with the following statements about the overall physical environment in [Q3].

	Strongly disagree 1	2	3	4	5	6	7	8	9	Strongly agree 10	Response total
The layout in [Q3] serves my purposes/needs	1.32% (9)	1.32% (9)	2.35% (16)	2.21% (15)	6.62% (45)	6.77% (46)	15.74% (107)	24.27% (165)	15.15% (103)	24.27% (165)	680
[Q3] is aesthetically attractive	3.09% (21)	5% (34)	4.85% (33)	6.47% (44)	15% (102)	9.85% (67)	17.65% (120)	16.47% (112)	10.29% (70)	11.32% (77)	680
[Q3] is safe and comfortable	1.32% (9)	1.18% (8)	2.5% (17)	4.41% (30)	7.79% (53)	7.79% (53)	13.09% (89)	20.59% (140)	19.27% (131)	22.06% (150)	680

Statistics based on 680 respondents;

How often do you use the following activities?

	Never	A few times a year	Monthly	1 or 2 times a week	3 or more times a week		Response total
Fitness Suite	24.71% (168)	15.29% (104)	8.68% (59)	27.94% (190)	23.38% (159)		680
Fitness Classes	36.91% (251)	12.06% (82)	5.15% (35)	27.21% (185)	18.68% (127)		680

Statistics based on 680 respondents;

Why do you not use the fitness suite more often?

		Response total
		331

Statistics based on 331 respondents;

What would encourage you to use the fitness suite more often?

		Response total
		306

Statistics based on 306 respondents;

Please give an overall score of how important the following aspects would be for you, if you were to use the fitness suite.

	Not important at all 1	2	3	4	5	6	7	8	9	Very important 10	Not applicable		Response total
Personal training programmes	13.1% (22)	2.38% (4)	3.57% (6)	3.57% (6)	11.91% (20)	3.57% (6)	5.95% (10)	16.07% (27)	3.57% (6)	17.86% (30)	18.45% (31)		168
Cleanliness and atmosphere	2.38% (4)	0% (0)	0% (0)	0.6% (1)	3.57% (6)	1.19% (2)	4.76% (8)	17.26% (29)	17.86% (30)	39.88% (67)	12.5% (21)		168
Variety and condition of equipment	2.98% (5)	0% (0)	0.6% (1)	1.79% (3)	4.17% (7)	1.79% (3)	6.55% (11)	15.48% (26)	17.26% (29)	32.74% (55)	16.67% (28)		168
Verbal and non-verbal interactions with the members of staff	3.57% (6)	0.6% (1)	2.38% (4)	1.19% (2)	5.95% (10)	7.14% (12)	4.76% (8)	22.02% (37)	14.29% (24)	25.6% (43)	12.5% (21)		168
Other customers and their attitudes	3.57% (6)	1.79% (3)	1.79% (3)	1.79% (3)	8.33% (14)	5.36% (9)	7.14% (12)	20.83% (35)	13.1% (22)	22.02% (37)	14.29% (24)		168
Social interactions with other customers	7.74% (13)	1.19% (2)	6.55% (11)	5.95% (10)	11.31% (19)	8.93% (15)	6.55% (11)	16.07% (27)	10.12% (17)	11.91% (20)	13.69% (23)		168
The physical and mental outcome I get from my exercise	2.98% (5)	0% (0)	0% (0)	0.6% (1)	4.76% (8)	3.57% (6)	2.98% (5)	16.07% (27)	16.67% (28)	36.91% (62)	15.48% (26)		168
Overall positive feeling from the experience that makes my day	3.57% (6)	0% (0)	0% (0)	0.6% (1)	4.76% (8)	1.19% (2)	2.38% (4)	14.88% (25)	22.02% (37)	35.71% (60)	14.88% (25)		168

Statistics based on 168 respondents;

As a frequent customer of [Q3], please can you help us to understand the details about its various aspects of the service provision, such as exercise programmes, staff and other customers.

You will be offered two sets of questions at a time.

In the first set of questions please express to what extent you agree with the statements by using the scale: 1 - Strongly Disagree and 10 - Strongly Agree.

The second set of questions will ask you how important the aspects are for you personally. Please indicate the importance of each aspect using the scale: 1- Not important at all and 10 - Very important.

To what extent do you agree with the following statements about exercise programmes in [Q3]?

	Strongly disagree 1	2	3	4	5	6	7	8	9	Strongly agree 10		Response total
There is a good range of fitness classes	0.32% (1)	0.64% (2)	2.56% (8)	0.96% (3)	7.05% (22)	6.09% (19)	12.82% (40)	23.72% (74)	17.31% (54)	28.53% (89)		312
The individual programme developed for me by the personal trainer is appropriate for me	4.71% (8)	2.35% (4)	1.18% (2)	1.77% (3)	19.41% (33)	2.94% (5)	4.71% (8)	14.71% (25)	14.71% (25)	33.53% (57)		170
The fitness programme that I use in the fitness suite is appropriate for me	0.47% (1)	0.94% (2)	1.42% (3)	0.47% (1)	7.08% (15)	5.19% (11)	13.21% (28)	17.45% (37)	17.93% (38)	35.85% (76)		212

Statistics based on 394 respondents;

How important for you are the following aspects of exercise programmes in [Q3]?

	Not important at all 1	2	3	4	5	6	7	8	9	Very important 10		Response total
Good range of fitness classes	0.64% (2)	0.32% (1)	0.64% (2)	1.6% (5)	2.89% (9)	3.21% (10)	4.17% (13)	19.55% (61)	13.78% (43)	53.21% (166)		312
Appropriateness of the individual programme developed for me by the personal trainer	7.65% (13)	3.53% (6)	1.77% (3)	2.35% (4)	9.41% (16)	5.29% (9)	3.53% (6)	15.29% (26)	10.59% (18)	40.59% (69)		170
Appropriateness of the fitness programme that I use in the fitness suite	2.83% (6)	1.42% (3)	0.47% (1)	0.94% (2)	4.72% (10)	4.25% (9)	6.13% (13)	19.81% (42)	16.51% (35)	42.93% (91)		212

Statistics based on 394 respondents;

To what extent do you agree with the following statements about the staff in [Q3]?

	Strongly disagree 1	2	3	4	5	6	7	8	9	Strongly agree 10		Response total
Personal trainers in the fitness suite are very knowledgeable and professional	0.57% (2)	0.57% (2)	0.57% (2)	2.29% (8)	12.32% (43)	5.44% (19)	9.46% (33)	16.91% (59)	16.62% (58)	35.24% (123)		349
Fitness instructors leading classes are very knowledgeable and professional	0% (0)	0.32% (1)	0% (0)	0.32% (1)	0.96% (3)	1.92% (6)	6.41% (20)	18.27% (57)	23.08% (72)	48.72% (152)		312
Staff members in the fitness suite are friendly	0.57% (2)	0% (0)	0.86% (3)	0.29% (1)	3.44% (12)	3.44% (12)	11.75% (41)	17.77% (62)	17.77% (62)	44.13% (154)		349
Fitness instructors leading classes are friendly	0.32% (1)	0% (0)	0% (0)	0% (0)	1.28% (4)	1.92% (6)	3.85% (12)	13.78% (43)	24.68% (77)	54.17% (169)		312
Staff members in the fitness suite are always willing to help	0.57% (2)	0.29% (1)	1.15% (4)	2.01% (7)	6.02% (21)	3.73% (13)	7.16% (25)	17.48% (61)	19.77% (69)	41.83% (146)		349
Fitness instructors leading classes are always willing to help participants	0.32% (1)	0% (0)	0.32% (1)	0.64% (2)	1.28% (4)	3.85% (12)	3.53% (11)	13.46% (42)	23.72% (74)	52.89% (165)		312

Statistics based on 522 respondents;

How important for you personally are the following aspects related to the staff in [Q3]?

	Not important at all 1	2	3	4	5	6	7	8	9	Vary important 10		Response total
Knowledgeable and professional personal trainers in the fitness suite	3.53% (6)	0.59% (1)	1.18% (2)	0.59% (1)	2.35% (4)	1.77% (3)	4.71% (8)	10.59% (18)	15.88% (27)	58.82% (100)		170
Knowledgeable and professional fitness classes instructors	0% (0)	0.32% (1)	0.32% (1)	0% (0)	0.96% (3)	0.64% (2)	2.89% (9)	11.54% (36)	19.55% (61)	63.78% (199)		312
Friendly staff in the fitness suite	1.72% (6)	0.57% (2)	0.86% (3)	0% (0)	2.29% (8)	1.72% (6)	8.6% (30)	15.76% (55)	18.91% (66)	49.57% (173)		349
Friendly fitness class instructors	0.32% (1)	0% (0)	0% (0)	0.32% (1)	0.96% (3)	0% (0)	3.53% (11)	14.1% (44)	21.47% (67)	59.3% (185)		312
Staff members in the fitness suite who are always willing to help	2.01% (7)	0.29% (1)	0.57% (2)	0.86% (3)	1.72% (6)	2.29% (8)	4.3% (15)	14.9% (52)	16.33% (57)	56.73% (198)		349
Class fitness instructors who are always willing to help	0.32% (1)	0% (0)	0.32% (1)	0.32% (1)	0.32% (1)	0.32% (1)	2.56% (8)	11.22% (35)	21.15% (66)	63.46% (198)		312

Statistics based on 522 respondents;

To what extent do you agree with the following statements about other customers in [Q3]?

	Strongly disagree 1	2	3	4	5	6	7	8	9	Strongly agree 10		Response total
My experience is enhanced by other customers in the fitness suite	6.3% (22)	3.73% (13)	8.31% (29)	4.01% (14)	22.35% (78)	12.32% (43)	12.89% (45)	13.18% (46)	5.16% (18)	11.75% (41)		349
My experience is enhanced by other customers in fitness classes	1.6% (5)	0.96% (3)	3.53% (11)	3.21% (10)	10.26% (32)	9.62% (30)	14.74% (46)	24.68% (77)	13.14% (41)	18.27% (57)		312
Generally, other customers in the fitness suite follow rules and regulations	3.44% (12)	0.29% (1)	2.29% (8)	4.3% (15)	6.59% (23)	8.6% (30)	13.18% (46)	19.48% (68)	17.19% (60)	24.64% (86)		349
Generally, other customers in fitness classes follow rules and regulations	0.96% (3)	0% (0)	1.92% (6)	1.92% (6)	4.49% (14)	4.49% (14)	9.3% (29)	30.45% (95)	19.55% (61)	26.92% (84)		312

Statistics based on 522 respondents;

How important for you are the following aspects related to other customers in [Q3]?

	Not important at all 1	2	3	4	5	6	7	8	9	Very important 10		Response total
Other customers having a positive impact on my experience in the fitness suite	7.45% (26)	3.44% (12)	5.44% (19)	5.16% (18)	14.9% (52)	11.18% (39)	10.03% (35)	18.34% (64)	10.32% (36)	13.75% (48)		349
Other customers having a positive impact on my experience in the fitness classes	3.21% (10)	0.96% (3)	3.85% (12)	2.56% (8)	8.01% (25)	9.94% (31)	13.14% (41)	22.44% (70)	16.35% (51)	19.55% (61)		312
Other customers' respect for the rules and regulations in the fitness suite	1.15% (4)	0.29% (1)	2.01% (7)	1.43% (5)	4.3% (15)	4.87% (17)	6.59% (23)	20.34% (71)	20.34% (71)	38.68% (135)		349
Other customers' respect for the rules and regulations in in the fitness classes	1.28% (4)	0.64% (2)	1.28% (4)	1.92% (6)	4.49% (14)	4.17% (13)	5.45% (17)	21.47% (67)	22.44% (70)	36.86% (115)		312

Statistics based on 522 respondents;

To what extent do you agree with the following statements about the results that you achieve through using [Q3]?

	Strongly disagree 1	2	3	4	5	6	7	8	9	Strongly agree 10		Response total
Going to the fitness suite helped me to improve my personal fitness	0.29% (1)	0% (0)	0.29% (1)	0.29% (1)	1.72% (6)	3.15% (11)	9.17% (32)	15.76% (55)	20.92% (73)	48.42% (169)		349
Fitness classes helped me to improve my personal fitness	0% (0)	0% (0)	0% (0)	0% (0)	0.32% (1)	1.92% (6)	4.49% (14)	18.59% (58)	21.47% (67)	53.21% (166)		312
My fitness level has increased from using the fitness suite	0.29% (1)	0% (0)	0.29% (1)	0.57% (2)	2.01% (7)	4.01% (14)	9.17% (32)	16.91% (59)	19.48% (66)	47.28% (165)		349
My fitness level has increased from participating in classes	0% (0)	0% (0)	0% (0)	0% (0)	1.28% (4)	0.96% (3)	6.09% (19)	16.99% (53)	23.08% (72)	51.6% (161)		312
I get psychological benefits from using the fitness suite	0.57% (2)	0.57% (2)	0.86% (3)	0.57% (2)	2.87% (10)	4.59% (16)	9.17% (32)	14.9% (52)	19.48% (66)	46.42% (162)		349
I get psychological benefits from going to the classes	0% (0)	0.32% (1)	0.32% (1)	0.96% (3)	0.64% (2)	0.96% (3)	5.77% (18)	15.06% (47)	24.68% (77)	51.28% (160)		312
My skill level has increased from using the fitness suite	1.15% (4)	0.29% (1)	0.86% (3)	2.01% (7)	7.74% (27)	6.88% (24)	11.75% (41)	14.61% (51)	19.48% (66)	35.24% (123)		349
My skill level has increased from going to the classes	0% (0)	0.32% (1)	0% (0)	0.96% (3)	2.89% (9)	2.24% (7)	8.01% (25)	16.03% (50)	25% (78)	44.55% (139)		312

Statistics based on 522 respondents;

How important for you are the results that you achieve through using [Q3]?

	Not important at all 1	2	3	4	5	6	7	8	9	Very important 10	Response total
Improving my personal fitness through using the fitness suite	0.29% (1)	0% (0)	0.29% (1)	0.57% (2)	2.01% (7)	1.72% (6)	7.74% (27)	13.18% (46)	16.91% (59)	57.31% (200)	349
Improving my personal fitness through participating in the fitness classes	0% (0)	0% (0)	0% (0)	0% (0)	0.64% (2)	1.28% (4)	3.21% (10)	15.71% (49)	20.19% (63)	58.97% (184)	312
Increasing fitness level through using the fitness suite	0.29% (1)	0% (0)	0% (0)	1.15% (4)	2.29% (8)	2.29% (8)	6.88% (24)	12.89% (45)	17.48% (61)	56.73% (198)	349
Increasing fitness level from participating in the classes	0% (0)	0% (0)	0% (0)	0.96% (3)	0.64% (2)	0.96% (3)	3.53% (11)	15.39% (48)	21.15% (66)	57.37% (179)	312
Psychological benefits from using the fitness suite	0.86% (3)	0.57% (2)	0.57% (2)	0.57% (2)	4.3% (15)	3.15% (11)	7.16% (25)	12.89% (45)	18.05% (63)	51.86% (181)	349
Psychological benefits from participating in the classes	0.32% (1)	0.32% (1)	0.32% (1)	0.64% (2)	2.56% (8)	1.92% (6)	4.81% (15)	13.46% (42)	22.76% (71)	52.89% (165)	312
Increasing skill level through using the fitness suite	1.15% (4)	0.86% (3)	1.72% (6)	2.58% (9)	8.02% (28)	3.73% (13)	9.17% (32)	15.47% (54)	17.48% (61)	39.83% (139)	349
Increasing skill level from participating in the classes	0.32% (1)	0.96% (3)	1.28% (4)	0.64% (2)	3.21% (10)	2.56% (8)	9.62% (30)	17.31% (54)	22.76% (71)	41.35% (129)	312

Statistics based on 522 respondents;

To what extent do you agree with the following statements?

	Strongly disagree 1	2	3	4	5	6	7	8	9	Strongly agree 10	Response total
I have achieved what I wanted from using the fitness suite	0.29% (1)	0.29% (1)	2.58% (9)	3.73% (13)	6.88% (24)	7.16% (25)	20.63% (72)	23.21% (81)	13.75% (48)	21.49% (75)	349
I have achieved I wanted from participating in the fitness classes	0% (0)	0.32% (1)	0.32% (1)	0.96% (3)	4.17% (13)	5.77% (18)	15.39% (48)	27.24% (86)	15.71% (49)	30.13% (94)	312
I usually have a good feeling after using the fitness suite	0.29% (1)	0.29% (1)	0.57% (2)	0.86% (3)	2.58% (9)	3.44% (12)	9.46% (33)	19.48% (68)	20.34% (71)	42.69% (149)	349
I usually have a good feeling after participating in the fitness classes	0% (0)	0% (0)	0% (0)	0.96% (3)	0.32% (1)	1.28% (4)	4.81% (15)	14.74% (46)	25.64% (80)	52.24% (163)	312

Statistics based on 522 respondents;

What could help you to get what you want from the fitness suite?

	Response total
	48

Statistics based on 48 respondents;

What could help you to get what you want from fitness classes?

		Response total
		48

Statistics based on 48 respondents;

How important for you are the following?

	Not important at all 1	2	3	4	5	6	7	8	9	Very important 10		Response total
To achieve what I want from using the fitness suite	0.29% (1)	0% (0)	0.29% (1)	0.29% (1)	1.15% (4)	0.86% (3)	7.16% (25)	16.33% (57)	22.06% (77)	51.58% (180)		349
To achieve what I want from participating in the fitness classes	0% (0)	0% (0)	0% (0)	0% (0)	0.64% (2)	0.64% (2)	5.45% (17)	17.63% (55)	26.28% (82)	49.36% (154)		312
To have a good feeling after using the fitness suite	0.57% (2)	0% (0)	0.57% (2)	0.57% (2)	2.29% (8)	2.58% (9)	4.87% (17)	15.47% (54)	19.48% (68)	53.58% (187)		349
To have a good feeling after participating in the fitness classes	0% (0)	0% (0)	0.32% (1)	0% (0)	0.96% (3)	1.28% (4)	4.81% (15)	14.74% (46)	24.68% (77)	53.21% (166)		312

Statistics based on 522 respondents;

To what extent do you agree with the following statements about the social environment in [Q3]?

	Strongly disagree 1	2	3	4	5	6	7	8	9	Strongly agree 10		Response total
The fitness suite provided me with many opportunities for social interaction	7.16% (25)	6.59% (23)	8.31% (29)	7.45% (26)	21.78% (76)	7.16% (25)	10.6% (37)	12.32% (43)	8.6% (30)	10.03% (35)		349
The fitness classes provided me with many opportunities for social interaction	1.92% (6)	2.56% (8)	5.45% (17)	4.49% (14)	8.33% (26)	8.97% (28)	14.42% (45)	22.44% (70)	16.35% (51)	15.06% (47)		312
I made friends in the fitness suite	15.76% (55)	12.61% (44)	9.46% (33)	8.88% (31)	14.33% (50)	6.02% (21)	6.59% (23)	9.17% (32)	6.59% (23)	10.6% (37)		349
I made friends in the fitness classes	5.77% (18)	6.09% (19)	5.13% (16)	5.77% (18)	7.69% (24)	7.37% (23)	13.46% (42)	18.59% (58)	10.9% (34)	19.23% (60)		312

Statistics based on 522 respondents;

How important for you are the following aspects of the social environment in [Q3]?

	Not important at all 1	2	3	4	5	6	7	8	9	Very important 10		Response total
Opportunities for social interaction in the fitness suite	16.62% (58)	8.6% (30)	7.45% (26)	8.6% (30)	16.62% (58)	8.88% (31)	10.89% (38)	6.88% (24)	6.02% (21)	9.46% (33)		349
Opportunities for social interaction in the fitness classes	7.69% (24)	3.53% (11)	4.81% (15)	7.05% (22)	14.42% (45)	7.05% (22)	14.1% (44)	15.71% (49)	12.18% (38)	13.46% (42)		312
Making friends in the fitness suite	20.34% (71)	8.88% (31)	8.31% (28)	8.6% (30)	16.05% (56)	7.74% (27)	8.6% (30)	6.88% (24)	5.44% (19)	9.17% (32)		349
Making friends in the fitness classes	9.3% (29)	3.53% (11)	5.77% (18)	8.65% (27)	15.39% (48)	8.33% (26)	11.86% (37)	12.82% (40)	11.54% (36)	12.82% (40)		312

Statistics based on 522 respondents;

To what extent do you agree with the following statements about the general atmosphere in [Q3]?

	Strongly disagree 1	2	3	4	5	6	7	8	9	Strongly agree 10		Response total
The fitness suite is clean and well maintained	2.29% (8)	0.86% (3)	2.01% (7)	2.58% (9)	6.02% (21)	5.44% (19)	9.74% (34)	23.21% (81)	15.76% (55)	32.09% (112)		349
Class studios are clean and well maintained	2.24% (7)	0.32% (1)	2.56% (8)	4.49% (14)	5.45% (17)	8.33% (26)	11.54% (36)	21.15% (66)	16.67% (52)	27.24% (85)		312
I enjoy the atmosphere in the fitness suite	1.43% (5)	0.86% (3)	0.86% (3)	3.44% (12)	9.46% (33)	9.17% (32)	12.32% (43)	22.06% (77)	12.89% (45)	27.51% (96)		349
I enjoy the atmosphere in the class studios	0.32% (1)	0% (0)	0.96% (3)	1.6% (5)	3.21% (10)	3.85% (12)	10.26% (32)	24.04% (75)	19.23% (60)	36.54% (114)		312

Statistics based on 522 respondents;

How important for you are the following aspects of the general atmosphere in [Q3]?

	Not important at all 1	2	3	4	5	6	7	8	9	Very important 10		Response total
The fitness suite is clean and well maintained	0.29% (1)	0.29% (1)	0% (0)	0.57% (2)	2.58% (9)	2.01% (7)	5.44% (19)	13.47% (47)	21.49% (75)	53.87% (188)		349
Class studios are clean and well maintained	0% (0)	0% (0)	0% (0)	0.64% (2)	1.28% (4)	1.6% (5)	3.21% (10)	17.95% (56)	25% (78)	50.32% (157)		312
Enjoying the atmosphere in the fitness suite	1.15% (4)	0.86% (3)	0.86% (3)	2.01% (7)	6.02% (21)	2.58% (9)	8.88% (31)	17.77% (62)	20.34% (71)	39.54% (138)		349
Enjoying the atmosphere in the class studios	0.32% (1)	0% (0)	0% (0)	0% (0)	2.89% (9)	1.92% (6)	7.69% (24)	19.55% (61)	23.08% (72)	44.55% (139)		312

Statistics based on 522 respondents;

To what extent do you agree with the following statements about the equipment in [Q3]?

	Strongly disagree 1	2	3	4	5	6	7	8	9	Strongly agree 10		Response total
A variety of exercise equipment is available in the fitness suite	0.86% (3)	0.86% (3)	0.86% (3)	3.15% (11)	3.44% (12)	6.3% (22)	10.03% (35)	22.35% (78)	19.2% (67)	32.95% (115)		349
A variety of fitness equipment is available during the fitness classes	1.28% (4)	0.96% (3)	0.64% (2)	0.96% (3)	8.01% (25)	5.45% (17)	12.5% (39)	22.44% (70)	20.83% (65)	26.92% (84)		312
The equipment provided in the fitness suite is in good, usable condition	0.29% (1)	0.86% (3)	0.86% (3)	1.72% (6)	4.01% (14)	4.01% (14)	9.17% (32)	19.77% (69)	24.07% (84)	35.24% (123)		349
The equipment provided during the fitness classes is in good, usable condition	1.92% (6)	0.64% (2)	0.96% (3)	1.6% (5)	4.81% (15)	4.49% (14)	13.14% (41)	19.87% (62)	20.51% (64)	32.05% (100)		312

Statistics based on 522 respondents;

How important for you are the following aspects related to the equipment in [Q3]?

	Not important at all 1	2	3	4	5	6	7	8	9	Very important 10		Response total
The variety of exercise equipment in the fitness suite	0.57% (2)	0% (0)	0% (0)	0% (0)	3.44% (12)	1.72% (6)	5.16% (18)	15.76% (55)	20.92% (73)	52.44% (183)		349
The variety of fitness equipment in the fitness classes	1.6% (5)	0.32% (1)	0.32% (1)	0.64% (2)	2.89% (9)	6.09% (19)	7.37% (23)	16.99% (53)	21.47% (67)	42.31% (132)		312
The condition of the equipment in the fitness suite	0.29% (1)	0% (0)	0.29% (1)	0.29% (1)	0.86% (3)	0.57% (2)	2.87% (10)	11.18% (39)	24.07% (84)	59.6% (208)		349
The condition of the equipment in the fitness classes	0.96% (3)	0% (0)	0% (0)	0% (0)	1.92% (6)	1.92% (6)	6.41% (20)	13.46% (42)	24.36% (76)	50.96% (159)		312

Statistics based on 522 respondents;

The following questions will ask you for details about your general satisfaction with the services at [Q3].

Please rate your overall satisfaction with

	Very Poor 1	2	3	4	5	6	7	8	9	Excellent 10		Response total
Fitness suite	0.39% (2)	0% (0)	1.95% (10)	1.56% (8)	4.3% (22)	4.1% (21)	16.6% (85)	28.52% (146)	20.7% (106)	21.88% (112)		512
Fitness classes	0.23% (1)	0.23% (1)	1.4% (6)	0.93% (4)	3.5% (15)	3.5% (15)	7.93% (34)	22.15% (95)	25.41% (109)	34.73% (149)		429

Statistics based on 595 respondents;

Please give a suggestion about one aspect that [Q3] can improve.

	Response total
	680

Statistics based on 680 respondents;

How would you rate the overall value for money when using [Q3]?

Very Poor 1	2	3	4	5	6	7	8	9	Excellent 10		Response total
0.44% (3)	0.44% (3)	0.88% (6)	2.21% (15)	3.68% (25)	6.62% (45)	18.24% (124)	22.35% (152)	18.24% (124)	26.91% (183)		680

Statistics based on 680 respondents;

**To what extent do you agree with the following statement:
"I am treated as a valued customer?"**

Strongly disagree 1	2	3	4	5	6	7	8	9	Strongly agree 10		Response total
0.74% (5)	0.44% (3)	1.91% (13)	3.09% (21)	7.5% (51)	9.12% (62)	18.38% (125)	19.41% (132)	15.15% (103)	24.27% (165)		680

Statistics based on 680 respondents;

What does being treated as a valued customer mean to you?

		Response total
		680

Statistics based on 680 respondents;

How likely are you to recommend [Q3] to your friends, family or colleagues?

Not likely at all 1	2	3	4	5	6	7	8	9	10	Very likely 11		Response total
1.62% (11)	0.44% (3)	0.88% (6)	1.47% (10)	2.65% (18)	4.56% (31)	11.47% (78)	17.79% (121)	13.24% (90)	17.65% (120)	28.24% (192)		680

Statistics based on 680 respondents;

Tell us why you are not very likely to recommend a KAL Centre?

		Response total
		271

Statistics based on 271 respondents;

Appendix G. Mean score gaps - Fitness suites

Service quality sub-dimension/Items	Mean Performance Score	Mean Importance Score	Gap (P-I)	P
<i>Client-employee interaction</i>				
Knowledgeable and professional fitness staff	8.10	9.00	-0.89	0.000*
Friendly staff	8.68	8.79	-0.12	0.177
Staff who are always willing to help	8.51	8.94	-0.42	0.000*
<i>Inter-client interaction</i>				
Other customers having a positive impact on the experience	6.00	6.40	-0.40	0.000*
Other customers' respect for the rules and regulations	7.62	8.43	-0.81	0.000*
<i>Outcome – Benefits</i>				
Improving personal fitness	8.93	9.09	-0.16	0.008**
Increasing fitness level	8.85	9.06	-0.21	0.001*
Psychological benefits	8.71	8.81	-0.09	0.116
Increasing skill level	8.19	8.24	-0.05	0.515
<i>Outcome – Valence</i>				
To achieve what I want	7.70	9.08	-1.39	0.000*
To have a good feeling	8.72	9.01	-0.29	0.000*
<i>Outcome – Sociability</i>				
Opportunities for social interaction	5.77	5.07	0.70	0.000*
Making friends	4.97	4.80	0.17	0.137
<i>Physical environment – Ambience</i>				
Workout area is clean and well maintained	8.00	9.06	-1.06	0.000*
Enjoying the atmosphere	7.76	8.42	-0.66	0.000*
<i>Physical environment – Equipment</i>				
The variety of fitness equipment	8.24	9.03	-0.79	0.000*
The condition of the equipment	8.47	9.32	-0.85	0.000*

Appendix H. Mean score gaps in rank order - Fitness suites

Fitness suite – attributes	Gap (P-I)
To achieve what I want	-1.39
Workout area is clean and well maintained	-1.06
Knowledgeable and professional fitness staff	-0.89
The condition of the equipment	-0.85
Other customers' respect for the rules and regulations	-0.81
The variety of fitness equipment	-0.79
Enjoying the atmosphere	-0.66
Staff who are always willing to help	-0.42
Other customers having a positive impact on the experience	-0.4
To have a good feeling	-0.29
Increasing fitness level	-0.21
Improving personal fitness	-0.16
Friendly staff	-0.12
Psychological benefits	-0.09
Increasing skill level	-0.05
Making friends	0.17
Opportunities for social interaction	0.7

Appendix I. Rank gaps - Fitness suites

Fitness suite – attributes	Performance	Importance	Rank Gap	P
Client-employee interaction				
Knowledgeable and professional fitness staff	10	8	2	0.000*
Friendly staff	5	11	-6	0.177
Staff who are always willing to help	6	9	-3	0.000*
Inter-client interaction				
Other customers having a positive impact on the experience	15	15	0	0.000*
Other customers' respect for the rules and regulations	14	12	2	0.000*
Outcome – Benefits				
Improving personal fitness	1	2	-1	0.008**
Increasing fitness level	2	5	-3	0.001*
Psychological benefits	4	10	-6	0.116
Increasing skill level	9	14	-5	0.515
Outcome – Valence				
To achieve what I want	13	3	10	0.000*
To have a good feeling	3	7	-4	0.000*
Outcome – Sociability				
Opportunities for social interaction	16	16	0	0.000*
Making friends	17	17	0	0.137
Physical environment – Ambience				
Workout area is clean and well maintained	11	4	7	0.000*
Enjoying the atmosphere	12	13	-1	0.000*
Physical environment – Equipment				
The variety of fitness equipment	8	6	-2	0.000*
The condition of the equipment	7	1	6	0.000*

Appendix J. Mean score gaps - Fitness classes

<i>Fitness classes – attributes</i>	<i>Performance</i>	<i>Importance</i>	<i>Gap (P-I)</i>	<i>P</i>
<i>Client-employee interaction</i>				
Knowledgeable and professional fitness staff	9.04	9.37	-0.32	0.000*
Friendly staff	9.19	9.30	-0.11	0.040***
Staff who are always willing to help	9.08	9.39	-0.31	0.000*
<i>Inter-client interaction</i>				
Other customers having a positive impact on the experience	7.38	7.41	-0.03	0.752
Other customers' respect for the rules and regulations	8.18	8.42	-0.24	0.012***
<i>Outcome – Benefits</i>				
Improving personal fitness	9.19	9.30	-0.12	0.021***
Increasing fitness level	9.14	9.25	-0.10	0.063
Psychological benefits	9.10	9.04	0.06	0.289
Increasing skill level	8.87	8.64	0.23	0.001**
<i>Outcome – Valence</i>				
To achieve what I want	8.29	9.16	-0.87	0.000*
To have a good feeling	9.18	9.19	-0.01	0.838
<i>Outcome – Sociability</i>				
Opportunities for social interaction	7.15	6.40	0.75	0.000*
Making friends	6.72	6.13	0.60	0.000*
<i>Physical environment – Ambience</i>				
Workout area is clean and well maintained	7.78	9.13	-1.35	0.000*
Enjoying the atmosphere	8.51	8.90	-0.38	0.000*
<i>Physical environment – Equipment</i>				
The variety of fitness equipment	8.05	8.61	-0.55	0.000*
The condition of the equipment	8.20	9.04	-0.84	0.000*

Appendix K. Mean score gaps in rank order - Fitness classes

<i>Fitness classes – attributes</i>	<i>Gap (P-I)</i>
Workout area is clean and well maintained	-1.35
To achieve what I want	-0.87
The condition of the equipment	-0.84
The variety of fitness equipment	-0.55
Enjoying the atmosphere	-0.38
Knowledgeable and professional fitness staff	-0.32
Staff who are always willing to help	-0.31
Other customers' respect for the rules and regulations	-0.24
Improving personal fitness	-0.12
Friendly staff	-0.11
Increasing fitness level	-0.1
Other customers having a positive impact on the experience	-0.03
To have a good feeling	-0.01
Psychological benefits	0.06
Increasing skill level	0.23
Making friends	0.6
Opportunities for social interaction	0.75

Appendix L. Rank gaps - Fitness classes

Fitness classes - attributes	Performance	Importance	Rank Gap	P
<i>Client-employee interaction</i>				
Knowledgeable and professional fitness staff	7	6	1	0.000*
Friendly staff	1	10	-9	0.040***
Staff who are always willing to help	6	7	-1	0.000*
<i>Inter-client interaction</i>				
Other customers having a positive impact on the experience	15	12	-3	0.752
Other customers' respect for the rules and regulations	12	8	4	0.012***
<i>Outcome - Benefits</i>				
Improving personal fitness	2	9	-7	0.021***
Increasing fitness level	4	11	-7	0.063
Psychological benefits	5	14	-9	0.289
Increasing skill level	8	15	-7	0.001**
<i>Outcome - Valence</i>				
To achieve what I want	10	2	8	0.000*
To have a good feeling	3	13	-10	0.838
<i>Outcome - Sociability</i>				
Opportunities for social interaction	16	17	-1	0.000*
Making friends	17	16	-1	0.000*
<i>Physical environment</i>				
Workout area is clean and well maintained	14	1	13	0.000*
Enjoying the atmosphere	9	5	4	0.000*
The variety of fitness equipment	13	4	9	0.000*
The condition of the equipment	11	3	8	0.000*

Appendix M. Performance scores - Fitness suites and fitness classes

<i>Attribute</i>	<i>Fitness suites Performance</i>	<i>Fitness classes Performance</i>	<i>Difference (FS-FC)</i>
Making friends	4.97	6.72	-1.75
Opportunities for social interaction	5.77	7.15	-1.38
Other customers having a positive impact on the experience	6.00	7.38	-1.38
Knowledgeable and professional fitness staff	8.10	9.04	-0.94
Enjoying the atmosphere	7.76	8.51	-0.75
Increasing skill level	8.19	8.87	-0.68
To achieve what I want	7.70	8.29	-0.59
Staff who are always willing to help	8.51	9.08	-0.57
Other customers' respect for the rules and regulations	7.62	8.18	-0.56
Friendly staff	8.68	9.19	-0.51
To have a good feeling	8.72	9.18	-0.46
Psychological benefits	8.71	9.10	-0.39
Increasing fitness level	8.85	9.14	-0.29
Improving personal fitness	8.93	9.19	-0.26
The variety of fitness equipment	8.24	8.05	0.19
Workout area is clean and well maintained	8.00	7.78	0.22
The condition of the equipment	8.47	8.20	0.27

Appendix N. Importance-performance gaps: fitness suites and classes

	<i>Fitness classes</i>		<i>Fitness suites</i>	
	<i>Gap (P-I)</i>	<i>P</i>	<i>Gap (P-I)</i>	<i>P</i>
<i>Client-employee interaction</i>				
Knowledgeable and professional fitness staff	-0.32	0.000*	-0.89	0.000*
Friendly staff	-0.11	0.040***	-0.12	0.177
Staff who are always willing to help	-0.31	0.000*	-0.42	0.000*
<i>Inter-client interaction</i>				
Other customers having a positive impact on the experience	-0.03	0.752	-0.40	0.000*
Other customers' respect for the rules and regulations	-0.24	0.012***	-0.81	0.000*
<i>Outcome - Benefits</i>				
Improving personal fitness	-0.12	0.021***	-0.16	0.008**
Increasing fitness level	-0.10	0.063	-0.21	0.001*
Psychological benefits	0.06	0.289	-0.09	0.116
Increasing skill level	0.23	0.001**	-0.05	0.515
<i>Outcome - Valence</i>				
To achieve what I want	-0.87	0.000*	-1.39	0.000*
To have a good feeling	-0.01	0.838	-0.29	0.000*
<i>Outcome - Sociability</i>				
Opportunities for social interaction	0.75	0.000*	0.70	0.000*
Making friends	0.60	0.000*	0.17	0.137
<i>Physical environment</i>				
Workout area is clean and well maintained	-1.35	0.000*	-1.06	0.000*
Enjoying the atmosphere	-0.38	0.000*	-0.66	0.000*
The variety of fitness equipment	-0.55	0.000*	-0.79	0.000*
The condition of the equipment	-0.84	0.000*	-0.85	0.000*

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