Understanding the impact of investment on business performance in different markets over time: Lessons from eight academy schools

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Abstract

This thesis explores the impact of leadership, structure, process and systems investments on operational, financial and competitiveness performance in service organisations over time. In doing so, the research presented here aims to understand two questions. Firstly, how does investment impact business performance in different markets and, secondly, how does this relationship vary over time? These questions address a number of gaps within the service operations literature, as previous research has only looked at one type of investment and not understood how impact changes over time. Although some studies have looked at the relationship between investment and performance in both service and manufacturing organisations, they have concluded conflicted findings. Whilst many studies look at the impact of process investment on business performance, none look at the impact of investment on a firm's competitiveness, and few investigate its impact on operational and financial performance. As a result, this research helps service organisations better understand how and where to make investments given their performance objectives and the nature of the market they serve.

Schools were selected as examples of service organisations because they provide a similar service to each other and are measured using nationally regulated performance metrics, but operate in different ways (using different leaders, structures, processes and systems) in different markets (which vary in size and student type) with different access to resources (which vary in access to staff, students and money) and levels of competition (number, type and concentration of competitors). By studying the investments made in different schools over a five year period, the research was able to explore how different types of investment (leadership, structure, process and systems) affected impact business performance (operational, financial and competitiveness) in service organisations competing in different markets (size, customer type and competition).

To answer the two research questions, collaborations were created with twenty executives to identify eight schools located in different parts of the country (Inner City, Urban, Rural and Coastal) that currently serve different markets, teach different students (type and number) and perform differently (across a number of operational, financial and competitiveness measures), that were put into 'special measures' by the Office for Standards in Education, Children's Services and Skills (OfSTED) five years ago, meaning they were required to improve performance or face closure. Since then, the schools have all made different investments to improve leadership, structures, processes and systems, in order to increase performance. As a result, the research was able to isolate key investments, using a case study methodology, and understand the impact of different investments on operational, financial and competitiveness performance over time. Each case study took two years to research and involved 12 to 48 visits, interviews with 24 to 51 executives, 124 to 219 direct observations, analysis of 42 to 127 documents and analysis of 81 to 351 archival records. The findings from each case were written up into a 31 to 42 page report, which was presented back to the school studied to ensure the data had been interpreted correctly. A cross-case analysis was then completed to identify the different investments made, their impact on performance and the factors affecting their impact.

By examining the sequence of investments made by each school over the last five years (after they went into 'special measures') and analysing the resultant changes on operational, financial and competitiveness performance, eight themes (steps) emerged.

The first step was to develop high quality leadership. Whilst each school appointed new leaders and narrowed objectives, these leaders did not improve operational or financial performance. Although this view contrasts that of Leithwood and Seashore-Louis (2012), Branch et al (2013) and Earley (2013), it is shared by Kruger and Scheerens (2012) who suggest "there is little consensus concerning what leadership is, what it compromises" (2012: 1) and how it impacts performance. This view is supported by Cranston (2013) who suggests

that school improvement is driven by a need to raise standards over time. As a result "standards-based agendas, enhanced centralised accountability systems and narrowly defined objectives" (2013: 131) create impact.

The second step was to rebrand. Each school hired designers to distance association with their predecessor and build a new public profile. This strategy sought to improve market perception, and is consistent with Semeltzer (1991) who concludes that communication channels improve market perception and build motivation for future improvements. Schools which served markets containing high quality students improved market perception within three months and increased customer applications within six months. By contrast, schools with limited access to high quality students took longer to improve market perception and had to repeat several investments.

For this reason, finding resources was the next step. All schools improved their admissions processes by introducing online application services to attract new customers. Application turnaround increased, which created investment opportunities because competitors used paper-based admission services. These changes helped improve financial performance and increased the ability to invest in long term initiatives (including product and service redesign).

Once revenue had been secured the next step for schools was to improve the quality of students. This included removing those disrupting teaching processes and rejecting low quality applicants living within one mile. This step helped create process improvement opportunities but could only occur after revenue had been secured, because both initiatives increased overhead costs.

Once schools had improved the quality of students, the next step was to create the right management and organisational structure. These investments helped to focus management attention (management structures) and determine where resources were located (level of centralisation). Inner City 2 and Costal 2 centralised back office activities in month three, which

increased staff utilisation and decreased overhead and process costs. However, the new structures did not stabilise or improve teaching processes so both schools recentralised back office activities in month 37. As a result, the level of paperwork and manpower significantly reduced, which released many teachers from administrative responsibilities. Senior leaders spent less time completing paperwork and more time stabilising processes.

Stabilisation provided opportunities to increase the quality of teaching. This step helped to improve student attendance and behaviour and create process improvement opportunities. Schools found that teaching capability could not improve until the right structures were in place, because the impact of these investments on operational performance was dependent on existing process stability. Urban and Inner City schools were more stable than Rural and Coastal schools due to the location of markets they served.

Once processes were stable, the next step was to improve their capability. Coastal 1 and 2 found it difficult to improve teaching capability; the markets they served contained high unemployment and significant deprivation. As a result, Coastal 1 introduced a strategy in month 47 to attract high quality teachers by increasing year 11 teachers' average pay. Higher salaries started to attract higher quality teachers from different markets.

Once capability had increased, the final step was to stabilise previous investments by improving management and development systems. Although these changes did not increase performance, they did create future improvement opportunities. Otley (1999) agrees, and suggests that improving systems helps organisations "relate to objectives, strategies and plans for their attainment, target-setting, incentive and reward structures and information feedback loops." (1999: 2). Unlike the Rural and Coastal Schools, Urban 1 and 2 and Inner City 1 and 2 appointed the right leaders early, and were able to transfer instincts and knowledge into systems and processes. This resulted in small, frequent changes being made that incrementally improved performance which helped create further motivation and capability.

These eight steps help practitioners to better understand how and where to make investments within an organization, given their performance objectives and the nature of the market they serve. Each step requires a different type of investment, creates a different type of benefit and impacts performance in different ways. However, this impact is affected by access to resources (where the organisation is located) and the changes it has already made. For example, the benefit of appointing new leaders and narrowing objectives (Step 1) depends on access to high quality leadership; and the benefit of improving capability (Step 7) depends on the earlier improvements made to process stability (Step 6).

These findings have significant implications for service organisations trying to improve operational, financial and competitiveness performance. They suggest that investments need to be made in the right order (to create the maximum impact with each investment), realise investment that impact will vary (depending on access to resources and previous investments/changes that have been made), manage the resource pipeline early in the journey (to increase revenue and create an opportunity for reducing costs and increasing resource quality), invest more resources (in areas with lower access to resources) and plan for a dip in financial performance (defined by Keating et al. (1999) as the improvement Paradox), before operational performance can improve.

These findings contribute to current service operations management in three ways. Firstly, by looking at organisations who have made a broader range of investments than previous studies. Secondly, by showing how these investments impact performance in markets with different stability and levels of competition. Thirdly, by understanding how these investments impact performance over time. In doing so, this study builds on the work of others (such as Angel and Rock, 2005; Brown, 2001; Ike et al., 2010; Iwata and Okada, 2011 and Morita et al., 2011), and addresses the call for longitudinal studies to help service organisations understand how to improve business performance over time (Gammeltoft et al., 2010; Jonas, 2010; Hill and Cuthbertson, 2011). However, this is simply the first step in addressing the gap

in the literature and more research should follow. The theories that have been developed in this thesis now need to be tested on a wider sample. The framework presented in chapter five for example has been built on eight case studies. This sample now needs to be expanded to ensure it is applicable and useful for academics and practitioners trying to improve the performance of low performing service organisations. Consequently, significant further investigation is still required to investigate the impact of investments on operational, financial and competitiveness performance over time in service organisations, with a particular focus on how to create 'sustaining' practices.

1. Introduction

The primary focus of research within service operations to date has been on operational rather than strategic issues (Hill, 2004). This means there are number of gaps that need addressing, particularly within the area of service operations strategy. One gap concerns the impact of investment on business performance, because previous research has only looked at one type of investment and not understood how impact changes over time. Whilst many studies look at the impact of process investment on business performance, none look at the impact of investment on a firm's competitiveness, and few investigate its impact on operational and financial performance. Although some research in service organisations has found that performance was positively impacted by process investment (Jurison, 1996; Francalanci and Galal, 1998; Devaraj and Kohli, 2003) and product/service development (Nath and Ramanthan, 2010), this has not been the case in all studies (Beccalli, 2007). These conflicting findings may be because the studies use different measures to look at investment-performance relationships, at a single point in time, in organisations serving markets with different needs, stability and levels of competition.

As such, the research contained in this thesis aims to build theory and address these conflicting findings by exploring the impact of leadership, structure, process and systems investments on operational, financial and competitiveness performance in service organisations over time. It is important to note that this research does not look at factors causing an organisation to fail. Instead, it focuses on the link between investment and performance over time in different markets. By doing so, it aims to understand two questions.

1. How does investment impact business performance in different markets?
2. How does this relationship vary over time?

These questions help to build theory in three ways. Firstly, by looking at organisations who have made a broader range of investments than those in previous studies. Secondly, by showing how these investments impact performance in markets with different stability and levels of competition. Thirdly, by understanding how these investments impact performance over time. A case study methodology is used to help answer both questions and build theory. The decision to use a multiple case study design was made for three reasons:

- **How and why question** – the research questions are "how and why as opposed to who, what, where, how many and how much" (Yin, 1994: 6), which means a case study, experiment or history design is appropriate.

- **Events being researched** – the research focuses on "contemporary events and does not require control over the behavioural proceedings being investigated" (Yin, 1994: 6), which means that neither a history nor experiment design are appropriate.

- **Theory building** – the purpose of the research is to build theory in terms of "identifying key variables, identifying linkages between these variables and identifying 'why' these relationships exist" (Voss et al., 2002: 198), which means a case study is appropriate.

Schools are selected as case studies because they help to answer both research questions. Schools are examples of service organisations as they provide a similar service to each other and are measured using nationally regulated performance metrics, but they operate in different ways (using leaders, structures, processes and systems) in different markets (size and student type) with different access to resources (staff and students) and levels of competition. By looking at eight school case studies, the research was able to explore how different types of investment (leadership, structure, process and systems) affected impact business performance (operational, financial and competitiveness) in different markets.

Theoretical saturation was reached when eight schools had been investigated. It was felt that eight schools would be sufficient to overcome the problems of observer bias and lack of

generalisability of the findings, but at the same time not too great in number to significantly reduce the depth of research within each case. To enhance the generalisability of the research, the eight schools were selected using replication logic; partnerships were developed with a steering group of twenty executives who helped to build a database of cases and provide sufficient evidence to answer the two research questions. In doing so, the eight schools located in different parts of the country, serving different markets, teaching different types (and sizes) of students and performing differently (across operational, financial and competitiveness measures), were investigated over a five year period. During this turnaround period, the schools made investments to improve leadership, structures, processes and systems, but operated in different markets with different access to resources and levels of competition. This enabled the research to isolate key investments and understand their impact on operational, financial and competitiveness performance over time.

As such, longitudinal research occurred over a two year period, during which time qualitative and quantitative data was collected in a systematic way using four main methods: site visits, archival information analysis, interviews and observation. Formal collection procedures were used to ensure the quality of the data, and perceptual triangulation to ensure that the facts being collected were correct. The findings from each case were written up into a 31 to 42 page report, which was presented back to the school studied to ensure the data had been interpreted correctly. A cross-case analysis was then completed to identify the different investments made, their impact on performance and the factors affecting their impact. A case study database was developed to identify explicit links between the questions asked, the data collected and the conclusions drawn, to increase the reliability of the information in each case study.

1.1 Thesis structure

The thesis is split into six main chapters that each address a number of issues. This first chapter introduces the thesis by highlighting and summarising key points from each section. Chapter two identifies the theoretical perspectives informing the research. Given that the objective of the research is to contribute to the field of service operations management, then the literature review focuses on this area. Chapter three both explores the alternatives available and justifies the methodology adopted within the research. It examines the multiple case study methodology design undertaken, in terms of the number of case studies, type of case studies, data collection methods used and the type of data collected through the research. Chapter four then examines the findings that have emerged from the research into the impact of leadership, structure, process and systems investments on operational, financial and competitiveness performance over time. Chapter five outlines the contribution made by the research. Finally, chapter six summarises the conclusions from all the chapters, looking at the work to date in the field of service operations strategy, the research questions used, the methodology adopted, the multiple case study design employed, the findings from the work undertaken and future research areas. It looks at the purpose of the research, its main findings and the subsequent contribution that has been made to the field of service operations management.

2. Theory development

2.1 Introduction to the chapter

This chapter identifies theoretical perspectives that inform the research contained in this thesis. In doing so, it attempts to address a number of research gaps by exploring how investment impacts business performance in different markets and examining this relationship over time. This chapter helps to build on previous investment-performance research (Nayyar, 1992; Smith and Reece, 1999; Ghaziani and Ventresca, 2005) and contributes to service operations literature by developing an understanding of the impact of leadership, structure, process and systems investments and by identifying certain tools and techniques that can be used to assess and represent the operational, financial and competitive performance within service organisations. Given that the objective of this research is to contribute to the field of service operations management, then the present chapter focuses on this area and is structured into seven main sections:

1. **Service organisations** – the chapter begins by comparing the definitions of service organisations that have been identified within the literature.
2. **Measuring performance** – next, the concept of 'performance' is defined, before identifying a number of performance measurement criteria.
3. **Defining a failing service organisation** – then, the concept of 'failing' is defined, before identifying the criteria of failure adopted by this research.
4. **How to improve performance** – given the research questions, the chapter then examines the literature to understand how to improve performance.
5. **The relationships between performance and investment** – having debated how to improve performance, the relationships that exist between investment and performance are assessed, which as a result highlights a number of gaps in the research.
6. **Summary and conclusions** – finally, the key points of the chapter are highlighted and summarised.

2.2 Service organisations

An understanding of theory begins by reviewing the existing literature within the relevant research field. Croom (2002: 149) suggests that "classification of literature as a means of developing an understanding of the relevance and contribution of a source is a necessary requirement for academic research. Here it is useful to position research in terms of its utilisation of existing theories, and subsequently to identify the contribution of the research by mapping literature."

Operations management literature is divided into manufacturing and service based research. Manufacturing research is more prominent, which creates a number of gaps within service research (Lovelock, 1983; Schmenner, 1986). Given that the objective of this research is to contribute to the field of service operations management, this chapter begins by defining what a service organisation is.

The characteristics of manufacturing and service organisations vary in several ways, due to the nature of their delivery systems. Typically, services are consumed at the point of delivery, whereas products can be made in advance of demand and stored in an inventory. This helps manufacturing organisations to manage imbalances between demand and capacity. In comparison, services cannot be stored in an inventory. The inability to store services is reflected by the perishable nature of their delivery systems. It is therefore common for customers to be involved in a service delivery system. This introduces an aspect of service interpretation defined by Hill and Hill (2011) as service discretion, which proposes that services are difficult to control in terms of quality conformance (including service levels and measuring performance against these levels). One method for controlling conformance is a separation using a line of visibility. This line helps to segregate areas of a service organisation into those where customers can interact (front office) and those where they cannot disrupt processes (back office). Service systems and procedures are designed so that certain tasks can be

undertaken in the back office, and, in doing so, processing can be delayed until a convenient time and activities cumulated in order to gain economies of scale. Separating the customer from the back office also allows procedures and tasks to be undertaken without having to make essential responses to customers' immediate requirements, therefore reducing process disruption.

The tangible nature of products enables manufacturing processes to be transferred, and the underpinning processes are easy to imitate. As a result, products are referred to by Hill and Hill (2011) as traded, and this has helped manufacturing organisations to improve over time and become increasingly competitive. In doing so, a number of best practice approaches have emerged, including 'world class' manufacturing which is discussed later in this chapter. By comparison, many services are sheltered. This is due to the extent by which competition is restricted in terms of geographical boundaries (of the market served). This view is consistent with Cousins, Lamming and Lawson (2008) who conclude that geographical boundaries define the size of an operation, its market served and potential market size. Dierickx and Cool (1989) agree and suggest that organisational performance is affected by the location of a market served. To understand the impact that market location can have on performance, this research selects schools as examples of service organisations. A school is an institution that delivers 'knowledge' to students using teachers (DfE, 2015) and is representative of a service organisation because teachers "offer their knowledge and time to improve productivity, performance, potential, and sustainability," (De Soto, 2006). In doing so, schools are service organisations with social and environmental objectives; they improve the life chances of students (DfE, 2015) and are morally responsible for developing a stronger and more robust economy, society and environment. Consequently, schools share a level of standardisation in terms of their service delivery, defined as the National Curriculum. This is a standard programme of study, designed to ensure national uniformity of content and standards in education. It is legislated by government (the Department for Education) and assessed by OfSTED.

Schools are therefore interesting to study because they deliver a similar, sometimes identical, service but do so in different markets (which vary in size and student type). Differentiation is often difficult because of this service similarity. Mohanty and Lakhe (2001) suggest that "charging a premium for services is usually an option" to differentiate similar offerings. However, state schools do not charge their end users (students). Instead, revenue is generated from government funding. Schools therefore face obstacles that manufacturers rarely face. This is because the end user is not a decision maker; a school is influenced by three key stakeholders. Firstly, its end user (students). Secondly, the decision maker of its end user (parents). Thirdly, its customer (the government). The services that schools deliver are not tangible, making it difficult for decision makers and end users to understand what they will receive and what value it will hold for them. Since the quality of these services depends on the quality of teaching, employee costs are a high component of school costs. Whereas a manufacturer may use technology, simplification and other techniques to lower the cost of products sold, schools and other service providers often face an unrelenting pattern of increasing costs (Mohanty and Lakhe, 2001). One way of managing these costs is to use leadership, structures, processes and systems in different ways. This is interesting and means that whilst schools offer a similar service to each other, they do so in different markets, using different leaders, structures, processes and systems. However, the level of resources each school can use varies in terms of staff accessibility, student accessibility and revenue.

Academy schools are selected by this study because they can self-generate revenue. Academy schools are self-governing non-profit charitable trusts who receive financial support from personal or corporate sponsors. They can decide where to operate and in which markets to compete. This means that academy schools are subject to varying levels of competition, including the number, type and concentration of competitors. This competition has evolved through five main steps over the last 14 years:

1. Introduced - by the Labour Government in 2000 to create investment in the worst performing schools with strict guidelines to limit the number of academies.

2. Expanded - the Conservative Government in 2010 made it possible for all schools (including primary and special schools) to become academies.

3. Impacting – Conservative Government research published in 2012 and 2013 suggested academies were having a positive impact on education quality by having greater freedom over curriculum, budget, staff, the length of the school day and the academic year.

4. Increased investment – Conservative Government consider allowing academies to make profit, sell or let former council-owned land and use hedge funds or venture capitalists to raise money.

5. Expanded - Conservative Government speeds up the academisation of schools and introduces legislation to target OfSTED grade 3 schools stating, "where we have concerns about a school's ability to improve performance, we will intervene to find a strong sponsor for the school."

Unlike state schools, academies are not subject to national pay agreements and employee salaries are not capped. For example, 50% more employees earn over £80,000 in academies than in state schools. The average Principal salary for a state school is £80,000 and £120,000 for an academy, with 41 academy Principals paid over £142,500 a year, eight over £170,000 and two over £230,000. Out of 27,452 schools in the UK, 4,243 have become academies and 4,013 are in the pipeline. However, the market is finite and only 50% of schools (13,000) are expected to become academies in the next 5 years. By studying the investments made in different academy schools over a five year period, this research is able to explore how different types of investment (leadership, structure, process and system) impact business performance

(operational, financial and competitive). These three measures of performance are examined in the next section, which looks at how previous studies have measured performance.

2.3 Measuring performance

Performance receives multiple definitions throughout operations management literature. According to Chen (2002), performance is a "transformation of inputs to outputs for achieving certain outcomes." With regard to its content, "performance informs the relationship between minimal and effective cost and realised output, and between output and achieved outcome". A second perspective is presented by Hill (2004) who defines performance as a robust linkage between competitive priorities, operations strategy and delivery systems. This view is consistent with Gonzalez et al. (2010) who suggest that performance concerns the completion of an activity, measured against known standards of accuracy, completeness, speed and cost. Standards of cost are used frequently because financial indicators are common performance metrics. This is because many organisations focus on increasing financial performance by developing profits (Shimizu et al. 2006). Whilst profitability is a common indicator of financial performance, the use of financial and non-financial indicators creates a suitably accurate performance measurement system (Hayes and Wheelwright, 1984; Stonebraker and Leong, 1994; Hayes et al. 1996; Slack and Lewis, 2007). Therefore, organisations should consider a range of indicators (financial and non-financial) to accurately measure performance. Whilst profitability is a key indicator of financial performance, market share is a key indicator of market competitiveness (how well an organisation is performing against competitors). Armstrong and Greene (2007) suggest that "market share, supplemented by changes in profitability, helps managers to evaluate both primary and selective demand in their market. That is, it enables them to judge not only total market growth or decline but also trends in customers' selections among competitors." Armstrong and Collopy (1996) conclude that, generally, revenue growth resulting from primary demand (total market growth) is less costly and more profitable than that achieved by capturing share from competitors. "Conversely, reduction of market share

can signal long-term concerns." (1996: 7). However, this reduction could also reflect changes in market competition and therefore be misleading. Therefore, a third type of indicator emerges: operational.

Operational indicators are organisation specific and linked to the market (or industry) served. When operational indicators are combined with financial and competiveness indicators, they provide an accurate measurement of organisation performance (Armstrong and Greene, 2007). A number of operational measures and variables have been applied in previous research and are summarised in figure 1. Some variables have been used to identify market needs, structures, systems, processes and competitive advantages. In doing so, they have helped to overcome the problems of quantification and dimensionality, "not to mention the issue of validly choosing a set of measures which meets universal acceptance." (Bourgeois, 1980; Neely, 1998). Whilst some variables in figure 1 have been adopted within frameworks, they have not been used to measure longitudinal impact. This creates a literature gap, because previous studies have not explored the relationship between investment and performance over time within service organisations. Voss (1997) suggests that using operational measures in this way (longitudinally) will help to benchmark the performance of an organisation with competitors. "Benchmarking is linked to the identification and adoption of improved operational practices, an increased understanding of competitive positioning, and the larger context of the learning organisation" (1997: 5). This helps to develop an organisation that understands its competitive position and its strengths and weaknesses. By doing so, a systematic process for effecting change is created. Consequently, this research uses a range of operational measures (taken from figure 1) to complement financial and competiveness measures and create a comprehensive performance measurement system (over time) which is discussed further in the methodology chapter.

Figure 1: Operational measures used in previous research

Operational performance measures and variables	Heskett (1986)	Chase and Hayes (1991)	Kellog and Nie (1995)	Aranda (2002)	Roth and Menor (2003)	Hill and Brown (2007)	Voss et al. (2008)	Loeb et al. (2010)	Tucker and Thorne (2009)	Lawrence (2007)	West (2010)	Gebauer (2005)
Market needs												
How are orders won?	•		•	•		•	•				•	
Customer order volume						•						
Size								•				
Competitors											•	•
Structures												
Organisational centralisation	•		•	•	•	•	•			•		
Management Structure	•	•			•	•	•	•		•		
Systems												
Performance measures	•				•	•		•			•	
Employee rewards and developments	•			•	•	•						
Quality management	•	•				•	•					
Capacity management	•		•	•	•							
Processes												
Flexibility	•		•	•	•	•	•	•		•		
Automation				•	•	•	•					•
Level of customer contact		•		•	•	•			•			•
Type of customer contact									•			•
Class capacity								•			•	•
Teacher capacity								•			•	•

22

Teacher number	•	•	•		•
Motivation	•	•			
Behavioural incidents	•	•			
Attendance	•	•			
Exclusions	•	•	•		
Leavers	•	•			
Competitive advantage					
Barriers to entry	•		•		
Service differentiation	•		•		
Exam results	•	•			
Distance students are prepared to travel	•	•			
Market share	•	•			
Student applications	•	•			

Academy schools can decide where to operate and in which markets to compete. This means that whilst schools offer a similar service to each other, they do so in different markets using different leaders, structures, processes and systems. They are measured in the same way using a broad range of metrics that provide accurate measurement of the organisation's performance (Armstrong and Greene, 2007). Measurement culminates in an inspection by OfSTED who assess four key areas of business performance:

Leadership and objectives – according to the DfE (2015), effective leadership and governance is essential, so inspectors begin by judging the impact of leaders (including, where relevant, governors) on creating and sustaining long term performance. To do this, inspectors examine financial accounts (financial performance) to assess resources and the ability to make investments. Then, market analysis is completed (competitiveness performance) to understand how well leaders focus on market objectives and how effectively they make decisions to develop market competitive criteria.

Student quality – next, inspectors measure student quality (operational performance) by examining levels of attainment (exam results) when students join a school, the progress they make during their time at the school, through to the standards they reach by the time they leave, compared with all students nationally.

Process stability – then, inspectors measure process stability (operational performance) by examining how well a school can manages students' behaviour and attendance. Particular attention is given to students' attitudes to learning, as well as to their conduct in lessons and around the school. Inspectors take into account the views of students, employees, parents and governors to create a rounded view of process stability.

Process capability – lastly, inspectors measure process capability (operational performance) and the ability to improve this capability. Inspectors look at how well students are learning and

how effectively teachers assess and give feedback, with particular focus on how effectively English and Maths skills are taught.

After completing an inspection of a school, OfSTED provide a grading for each of these key areas. Based on this information, an overall grading is provided ranging from 1 – 4:

Figure 2: Performance grading to judge school performance used by OfSTED

OfSTED Performance grade and descriptor

Grade 1: Outstanding - an outstanding school is highly effective in delivering outcomes that provide exceptionally well for all its students' needs. This ensures that they are very well equipped for the next stage of their education, training or employment (DfE, 2015). Once a school reaches 'outstanding', it will no longer be subject to routine performance inspections.

Grade 2: Good - a good school is effective in delivering outcomes that provide well for all its students' needs. Students are well prepared for the next stage of their education, training or employment.

Grade 3: Requires improvement - a school that requires improvement is not yet a good school, but it is not inadequate. This school will receive a full inspection within 24 months from the date of this inspection.

Grade 4: Inadequate - a school that has serious weaknesses is inadequate and requires significant improvement, but leadership and management are judged to be Grade 3 or higher. This school will receive regular monitoring by inspectors for 12 months. A school that requires special measures is one which receives Grade 4 for each metric, because its leaders and governors have not demonstrated the capacity to secure the necessary improvement. This school requires immediate improvement or it will be closed.

2.4 Defining a failing service organisation

The previous section examined how to measure performance. This section defines what a low performing service organisation is. It is important to note that this research does not look at factors causing a service organisation to fail. Instead, it looks at the link between investment and performance over time and in different markets. In doing so, it discusses a number of academic perspectives beginning with Ames (1983), who suggests that "failure refers to an organisation with an inability to make a profit or to bring in enough revenue to cover its expenses. A profitable business can fail if it does not generate adequate cash to meet expenses." (1983: 1). This view concludes that resources are important, and the lack of resources (cash) are synonymous with failure. Arrow (1969) presents a similar view and concludes that resources resemble the concept of externalities in economics. Gupta and Somers (1996) agree and suggest that performance is measured by an ability to change, whilst success is measured by an ability to survive. Hence, organisations should aim to constantly reinvent their identity over a prolonged and sustained period, never entering a state of complacency. Therefore, organisations without resources are failing organisations. However, resources may be immobile in the sense that their value is significantly lower, perhaps even zero, outside of their current use or that the transaction costs of transferring that resource are prohibitively high (Williamson, 1985). This view is consistent with Kinjerksi and Skrypnek, (2006), who suggest that only superior resources, that are non-tradeable or significantly less valuable to others, are capable of generating sustained competitive advantage.

Unlike successful organisations, failing organisations react to change rather than forecast planning and are often left vulnerable by competition and market turbulence. This view is consistent with Collier (1985), who warns that failing organisations can over-focus upon market conditions and competitor behaviour. They will inevitably fail to manage market turbulence and conditions of market lag. Consequently, competitors respond more effectively

and efficiently to change, causing strategy and processes to become redundant. Brettel and Engelend (2007) agree and conclude that a lack of or poor leadership is indicative of a failing organisation.

This study adopts a similar perspective and uses 'special measures' to define a failing service organisation. Special measures is a status applied by regulators in the UK to service organisations (such as schools) who fall short of acceptable standards. When applied to schools by OfSTED, special measures identify an acceptable level of leadership capacity necessary to secure improvements. A school subject to special measures will have regular short-notice inspections to monitor improvement. The senior managers and teaching staff can be sacked and the governors replaced by an appointed executive committee. If poor performance continues, the school may be closed. The academy schools selected by this study were put into special measures five years ago, meaning they were required to improve performance or face closure. As a result, the schools made a number of investments to improve leadership, structures, processes and systems. By analysing these investments, the research was able to isolate key changes and understand how to improve operational, financial and competitive performance over time. This understanding is now explored by analysing the literature and identifying key findings from previous studies.

2.5 How to improve performance

This section now looks at performance improvement and analyses the literature to understand how this can occur within a service organisation. Service organisations must continually improve performance to meet the needs of highly competitive markets (Arslan and Staub, 2013). This view is consistent with Hill and Hill (2011), who suggest that service organisations must look for ways to improve performance because markets constantly change and competition continually grows.

According to Hu and Plant (2001), investment of resources (in terms of time and money) can help to improve the performance of service organisations. Finance based research identifies investment as the deployment of money into an asset with an expectation of capital appreciation. Such investment is associated with financial capital and is subject, inter alia, to significant risk. In comparison, economics-based research identifies investment as saving and deferring consumption (Hassett, 2008). Neither perspective is shared by service operations' management literature, which defines investment as a conscious act involving the deployment of a resource (time or money) to improve performance (Shibata and Nishihara, 2015). This view is supported by Hu and Plant (2001) who conclude that resources include tangible assets such as plant, equipment, land, raw materials, and inventory, and also human resources such as skilled and unskilled labour, clerical, administrative, technical, financial and managerial staff. Youndt et al. (1996) suggest these resources are directly related to operational performance, including employee productivity, machine efficiency, and customer alignment.

However, this requires a level of resources that some organisations do not have. This is because the location of an organisation determines its accessibility to resources (Marshall, 1920). Dierickx and Cool (1989) agree and suggest that organisational performance is affected by the location of the market it serves. However, no studies have investigated market factors on performance. For this reason, the research presented here looks at market location by analysing service organisations operating in different markets (in different geographical areas). By doing so, the research explores the impact of investment on performance in different markets, with different levels of competition, stability and access to resources. This is important because some markets contain a high access to resources, whilst others do not (DfE, 2015). Although some organisations may not be able to move location to better access resources, they can adopt strategies that increase accessibility (Cardy and Lengnick-Hall, 2011) and maximise their resource utilisation. For example, by improving processes.

Miles and Huberman (1984: 2) suggest that improving processes helps to increase operational performance. Improving processes can release cash, and this creates resources that can be invested elsewhere. According to Lawler III et al. (2008), processes can be improved by recruiting high quality employees, who help to identify where improvement can occur. In doing so, waste is removed from processes which thus releases cash (creates resources). To attract high quality employees, Budhwar and Mellahi (2007) conclude that salary is an important factor and recommend increasing financial remuneration. A second factor to consider is the behaviour of existing employees (Sen, Bhattacharya and Korschun, 2006), which can be developed through training and coaching to improve process capability. The collective impact of these two factors is significant (Porter, Kraft and Claycomb, 2005; Lee and Steven, 1997) and difficult to transfer between organisations, even those within the same market using similar processes.

However, Heeks (1999) suggests that processes cannot improve until the right structures are in place. Structures are therefore important and can be used to centralise activities to create resources, by reducing duplication of tasks (and therefore reducing costs). "As a result, there is no wasted effort, no wasted storage capacity, and no inconsistency of data." (Heeks, 1999: 5). This view is consistent with Chenhall and Langfield-Smith (2007), who propose that management attention is focused by centralised activities because it enables them to benchmark performance to reduce overhead and process costs. This helps managers to become aware of market trends and develop market knowledge by implementing systems.

This view is consistent with Otley (1999), who suggests that systems help organisations by improving attainment, target-setting, incentive and reward structures and information feedback loops. In this way, leaders are able to measure performance and identify future areas for improvement (Chenhall and Langfield-Smith, 2007). Hofer and Schendel (1978) agree and propose that systems help service organisations to use strategy as a competitive force. By doing so, organisational performance is improved because operations strategy supports the

desired competitive advantage and complements other functional strategies (Hayes and Wheelwright, 1984a: 83). "Operations strategy is a strategy for an operations function of a service organisation" (Anderson et al., 1989: 137). It is a "course of action together with decisions on the specification and deployment of resources required to attain a stated performance objective" (Dahiyat, 2004). The literature outlines two classifications of operations strategy – process and content (Slack and Lewis; 2008). Process relates to the formulation, configuration, communication and implementation of corporate, business and functional strategy (Boyer et al., 2002). Process determines the success of reconciliation between market requirements of an organisation and operations resources in practice (Slack and Lewis, 2008). Content relates to strategic decision making and includes competitive priorities, structural/infrastructural choices and configurations which form the strategic direction of an organisation (Southard and Swenseth, 2003; Boyer et al., 2002), and, in doing so, create 'building blocks' of operations strategy (Slack and Lewis, 2008). These building blocks help to sustain competitive advantage and improve performance over time (Anvari et al., 2014).

However, Hayes and Wheelwright (1984a: 83) present a different view. Whilst the building blocks of strategy help to sustain competitive advantage, performance is only improved when investments are made (to disrupt an organisation). Operations strategy is therefore responsible for the creation and positioning of resources (investments) to increase performance (Swink and Way, 1995). This view is consistent with Hill (2004) who proposes that "strategy within a service organisation, if underpinned by leaders (investment decisions) will have a significant impact on performance." (2004: 45). Boyer et al., (2002) agree and suggest that decisions and actions relating to the creation and positioning of resources by leaders should be consistent with the overall business strategy. These decisions are made by leaders and therefore, the role of leadership is critically important for improving the performance of service organisations (Boal and Hooijberg 2000; Peterson, Smith, Martorana and Owens 2003). As a result, improving leadership should be the first step in a performance

journey. Whilst many studies have investigated the role of leadership on performance, the findings from these studies are mixed. Some studies suggest that the role of leadership has a significant impact on performance (Finkelstein and Hambrick, 1996; Katz and Kahn, 1978; Peterson, Smith, Martorana, and Owens 2003). However, other studies (Pfeffer 1977; Meindl, Ehrlich and Dukerich 1985) suggest that the role of leadership is less important. The reason for these conflicting findings may be because these studies have looked at a narrow range of variables and only investigated the role of leadership on operational and financial performance (not on firm competitiveness). These studies only focus on leaders and do not look at other factors (such as systems, structures and processes).

This study addresses these conflicting findings by looking at the link between investment and performance over time and in different markets. By doing so, it explores the impact of leadership in a wider context than that of previous studies by looking at the impact of leaders, systems, structures and processes on performance. Whilst a number of studies have found positive relationships between performance and investment, none have looked at the collective impact of leaders, systems, structures and processes. The key relationships which have been found by previous studies are now explored. In doing so, a number of literature gaps are identified.

2.6 The relationships between performance and investment

A number of studies assess the significance of investment, including studies which investigate the direct and collective impact of investment on business performance (Francalanci and Galal, 1998).The majority of studies investigate singular areas of investment, including the impact of people, process, information technology (IT), reduced environmental impact and marketing/PR investment on business performance. No studies investigate the direct or collective impact of investment on competitiveness. Instead, studies investigate investment impact on operational performance (operational capability, efficiency, productivity, cost and/or

process flexibility) and financial performance (sales, profit, return on assets, return on equity and/or return on capital employed).

Several studies find positive relationships. These include investment in service/product development (Bismillahir et al., 2012), marketing (Nath and Ramanthan, 2010) and environmental initiatives (Iwata and Okada, 2011). Several studies find inconclusive relationships. These include investment in people (Ankarhem et al., 2010) and various aspects of marketing (Niromand et al., 2012).

Many studies suggest that greater levels of investment help to improve performance quickly (Cavusgil, Calantone and Zhao, 2003; Stephanovich and Mueller, 2002). This is because organisations with superior investment develop greater understanding of their competing external environment (Stephanovich and Mueller, 2002; Shibata and Nishihara, 2007). This view is consistent with Markides and Charistou (2004) and Byrd et al. (2006) who suggest that investment provides an opportunity to develop unique and difficult to imitate capabilities (Hill, 2004). Hamel and Prahalad (1994) agree because capable leaders align resources with opportunities (Prescott and Visscher, 1980 and Kor and Mahoney, 2000), narrow objectives and improve decision making. In doing so, they recognise the performance potential of development paths and effectively allocate resources to drive growth and competitive advantage (Hill, 2011). Many studies agree that high quality leadership increases focus and improves decision making; however leadership without focus may not improve performance (Cavusgil, Calantone, and Zhao (2003). Myers (2005), Shibata and Byrd et al. (2006) and Nishihara (2015) suggest that investment provides challenging opportunities for leaders and confuses many of them, regarding roles, responsibilities, and reporting relationships. This can increase costs and inefficiencies, generate discontent among customers and suppliers, engender internal conflict and deter strategic direction (Rondinelli et al., 2001). This is consistent with the theory of Frugal innovation, which suggests that performance can instead be improved by a limitation of resources, since it is the constraints of producers or customers

(or both) that drive the innovation in the first place (Gonzalez et al. 2010). Therefore, leaders must maintain a focus on decision making. Focus avoids unnecessary risk with regard to resource deployment and ensures appropriate value for money. According to the theory of Frugal innovation, leaders must develop skills and expertise within the area of resource deployment, in order to channel investment into effective areas. Rondinelli et al. (2001) agree and propose that too much investment of resources often causes divergence from strategy and processes, which reduces sales and market share. This view is consistent with Cavusgil, Calantone and Zhao (2003), who suggest that leaders benefit from a limitation of resources, since it is the constraints that drive original innovation.

Many studies comprehensively examine the relationship between IT investment and performance but produce conflicting findings (Cron and Sobol, 1983, Weill, 1992). Other studies find positive relationships (Weill, 1992; Brynjolfsson and Hitt, 1996; Jurison, 1996b; Bharadwaj, 2000; Lee, 1989). Some find negative relationships (Dasgupta, Sarkis and Talluri, 1999; Shin, 2001; Hu and Plant, 2001 and Beccalli, 2007), and some find inconclusive relationships (Hitt and Brynjolfsson, 1996; Francalanci and Galal, 1998). One reason for these inconsistent findings may be process. Many firms use IT to automate process, rather than to align competitive priorities, operations strategy and delivery systems to increase performance (Dedrick, Gurbaxani and Kraemer, 2003). Automated processes are likely to increase productivity and competitiveness whilst reducing operating costs due to inflexibility. However, automated processes may not orientate around customers and may reduce delivery system flexibility, therefore reducing profitability (Hitt and Brynjolfsson, 1996). For this reason, performance is positively and directly related to process investment (Dedrick, Gurbaxani and Kraemer, 2003 and Morita et al., 2011), but not to IT investment (Beccalli, 2007). Mintzberg (1987) proposes that processes and performance are symbiotic. Robinson and Stern (1998) agree and propose a significant, positive relationship between operations strategy, the processes that underpin it and performance. This view is consistent with Venkatraman and Camillus (1984), Paiva, Villar and Picasso (2013) and the theory of world-class performance.

World-class performance is derived from world-class manufacturing, a term established by Hayes and Wheelwright (1984) which refers to outstanding manufacturing performance. Schonberger (1986) suggests world-class manufactures continually simplify processes, and, in so doing, refine workforce skills, workforce participation, management, technical competence, quality, unique resources and improvement practices. However, there are critics of world-class performance as being derived from manufacturing, and therefore not related to service firms.

Figure 3 summarises previous research investigating the impact of investment on performance in manufacturing and service organisations, showing the investment and performance measures used. This highlights five points. Firstly, the majority of studies focus on manufacturing organisations. Secondly, all studies only look at one type of investment. Thirdly, the majority of the studies into services have looked at the impact of process investment on business performance. Fourthly, no studies have looked at the impact of investment on a firm's competitiveness; they have only investigated its impact on operational and financial performance. Lastly, no studies have investigatied the impact of investment on performance over time. According to Markides and Charistou (2004), the rate at which performance is impacted by investment is varied. This is because there is a time delay between response and resultant impact, creating lag. If lag is not taken into account by measuring performance longitudinally, then inconsistent findings may emerge. This view is consistent with previous research regarding how market conditions interact with strategy to determine lag (Dowling and McGee, 1994; Claycomb, Germain and Droege, 2000).

Figure 3: Research investigating the impact of investment on business performance

Author (date) grouped by type of organisation	Research strategy	Investment and performance measures used				Key findings
		Investment		Business performance		
		Type	Measure	Operational	Financial	
Service organisations						
Jurison (1996a)	Empirical (three year longitudinal study of undisclosed number of firms)	IT	IT capability (user productivity)	Productivity and firm effectiveness		IT investment causes individual benefits to occur. This can cause firm effectiveness to develop over a longer period of time
Jurison (1996b)	Empirical (study of an undisclosed number of senior executives)	IT	IT capability (user productivity)	Productivity and firm effectiveness		IT investment causes benefits across various stakeholders, but benefits may not increase performance of the firm that made the investment
Francalanci and Galal (1998)	Empirical (longitudinal study of 52 life insurance firms)	IT	Worker composition (number of employees, number of managers and structure)	Productivity	Income per employee, and operating cost per employee	There is a direct relationship between IT investment and increased productivity
Menon and Lee (2000)	Empirical (longitudinal study of undisclosed number of healthcare firms)	IT	Technological capability (IT and medical) advances, and IT capability (structural efficiency, multi-hospital systems and vertical integration)		Operating costs	As IT investment and employee costs rise at an increasing rate due to regulatory effects, hospitals which move towards cost containment will increase performance
Devaraj and Kohli (2003)	Empirical (longitudinal study of eight hospitals)	IT	IT capability (Processing speed, reports produced, number of records accessed	Quality of service	Revenue	IT is positively and significantly associated with measures of hospital revenue and quality, and this effect occurs after time lags
Beccalli (2007)	Empirical (survey of 737 European banks)	IT	IT capability (network speed, number of computers per head, software and hardware)	Efficiency	Profit, return on assets and return on equity	There is no relationship between IT investment and performance, despite banks continually investing in IT
Pellegrin-Masinia and Leishman (2011)	Empirical (semi structured interviews of 12 UK service firms)	Environmental initiatives	Energy performance certificate rating and CSR policy content	Efficiency and productivity		Firms, despite gradually becoming more energy conscious, still regard energy costs as a negligible part of business costs. Nevertheless, an increasingly important driver is the reputational gain obtained by corporate businesses implementing sustainable practices, which drives performance
Bismillahir et al (2012)	Empirical (survey of 52 UK service firms)	Product/service development	Number of R&D programmes		Profit, return on assets and return on equity	R&D positively impacts performance in technology-driven firms

Author (date) grouped by type of organisation	Research strategy	Investment Type	Investment and performance measures used Measure	Business performance Operational	Business performance Financial	Key findings
Manufacturing organisations						
Weill (1992)	Empirical (survey of 33 valve manufacturing firms)	IT	Conversion effectiveness (Management commitment to IT, previous firm experience with IT, user satisfaction with systems, the turbulence of the political environment within the firm)	Labour costs and productivity	Sales growth and return on assets	Early adopters of strategic IT (investment) could have spectacular success but once the technology becomes common, the competitive advantage is lost
Brynjolfsson and Hitt (1996)	Empirical (multiple surveys of undisclosed number of large firms)	IT	Computer capital (number of computers, value of computers per head)	Productivity	Sales and operating costs	IT investment substantially and significantly contributes to firm output (productivity)
Hitt and Brynjolfsson (1996)	Empirical (survey of 370 large firms)	IT	IT capability (network efficiency, number of computers per head, software and hardware)	Productivity	Consumer value and profitability	IT investment increases productivity and creates substantial value for consumers but does not increase firm profitability
Peffers and Dos Santos (1996)	Empirical (longitudinal study from 1971 to 1984 of 2534 US banks)	IT	IT capability (number of automated teller machines – ATMs)		Market share	The effects of innovation supported by IT investment change over time as a result of learning and market competition
Brown (2001)	Empirical case study analysis of (undisclosed) number of technology firms	Environmental initiatives	Level of carbon reductions	Market value	Recuperation (cumulative net savings caused by investment)	Poor performance, large-scale market failures and barriers prevent firms from obtaining energy services at least cost
Hu and Plant (2001)	Critical review (of published research in Information Week USA)	IT	IT capital (investment per employee, operating cost per employee)	Efficiency	Profitability and sales	IT investment increases IT capital in a firm, but there is no relationship between IT capital and performance
Dedrick, Gurbaxani and Kraemer (2003)	Critical review (of published research in 50 articles)	IT	Organisational capital (decision-making systems, job training, and business process redesign)	Efficiency and productivity		IT is not simply a tool for automating 'process', but is more importantly an enabler of organisational changes that increase productivity
Angel and Rock (2005)	Empirical (survey of a cement plant in Thailand and an electronics manufacturing plant Malaysia)	Environmental initiatives	Level of greenhouse gas emissions and level of pollution emissions	Efficiency environmental management (Number of firm-based standards for environmental management)		Firm-based environmental standards supported by investment provide a platform for increasing performance through innovation

Author (date) grouped by type of organisation	Research strategy	Investment and performance measures used				Key findings
		Investment		Business performance		
		Type	Measure	Operational	Financial	
Ankarhem et al. (2010)	Empirical (survey of undisclosed number of Swedish investment grants)	People	Number of people Number of training and development programmes		Return on equity	Investment in people does not impact performance.
Nath and Ramanthan (2010)	Empirical (survey of 102 UK firms)	Marketing/PR	Level and type of communication, marketing capability, product diversification and market diversification	Operational capability and cost	Sales and return on capital employed	'Marketing capability' is a key determinant of performance, and market-driven firms have higher performance than firms focusing solely on operational capabilities
Iwata and Okada 2011)	Empirical (survey of undisclosed number of Japanese firms)	Environmental initiatives	Level of greenhouse gas emissions and pollution emissions	Efficiency and productivity	Sales, profit, return on assets and return on equity	Reduced 'environmental impact' increases 'productivity', 'sales' and, as a result, 'profit'
Morita et al. (2011)	Empirical (survey of undisclosed number of firms)	Process	Process flexibility (operational practices and strategic activities)	Process flexibility, efficiency and productivity		Process investment increases 'process flexibility', process investment integrates 'operational practices' and 'strategic activities', which increases performance
Niromand et al. (2012)	Empirical (survey of 118 Tehran firms)	Marketing/PR	Cost of customer communication, product diversification and market diversification		Return on capital employed	'Market diversification' does significantly impact performance, whereas 'product diversification' does not significantly impact performance
Service and manufacturing organisations						
Bharadwaj, Bharadwaj and Konsynski (1999)	Analysis of an annual survey conducted by the Information Week magazine (Survey of 631 firms)	IT	Market share, advertising expenditure, R&D expenditure, extent of related diversification, and firm size		Tobin's q ratio (capital market value of the firm/replacement value of its assets)	IT investment contributes to a firm's future performance potential. However, due to rapid technological changes, investments in IT tend to depreciate rather quickly, and rival firms very quickly copy the IT capabilities
Dasgupta, Sarkis and Talluri (1999)	Empirical (sample of 85 manufacturing and 77 service firms)	IT	Statistical size of investment, statistical size of firm	Productivity		Results were not conclusive in supporting a systematic impact of IT on firm productivity
Bharadwaj (2000)	Empirical (sample of undisclosed number of firms)	IT	IT capability (IT infrastructure, human IT resources, and IT enabled intangibles)		Profitability and sales	Firms with high IT capability outperform firms with low IT capability on a variety of profit and cost-based performance measures

Author (date) grouped by type of organisation	Research strategy	Investment and performance measures used				Key findings
		Investment		Business performance		
		Type	Measure	Operational	Financial	
Chircu and Kauffman (2000)	Empirical (sample of three IT firms)	IT	IT capability (operational effectiveness of information flow)	Productivity	Market value	IT investment produces inconsistent performance outcomes, defined as valuation barriers, and conversion barriers
Shin et, al (2012)	Analysis of an annual survey conducted by the Information Week magazine	IT	IT intensity (IT investment / selling and general administrative expenses) Diversification (total diversification, related diversification, and unrelated diversification)		Gross profit margin, ROA and ROE	The need for coordination of business resources across multiple markets (diversification) can increase the demand for IT. However, increased IT investment does not consistently improve the performance of firms that are highly diversified
Chatterjee, Pacini and Sambamurthy (2002)	Event-study methodology (sample of IT infrastructure announcements)	IT	Market impact of investment (Earnings announcements, mergers, acquisitions, tender offers, bankruptcy filings, and major income tax-related events)		Market value	Increased market value and trading volume is associated with IT infrastructure investment
Melvill, Kraemer, and Gurbaxani (2004)	Review of literature	IT	Firm size	Market competitiveness and market share	Profitability	IT investment is valuable, but the extent and dimensions are dependent factors, including complementary organisational resources of the firm and its trading partners, as well as the competitive and macro environment
Niua, Wang and Dong (2004)	Empirical (Cross-section study of 191 Chinese firms)	Product/service development	Technical resources and skills (R&D), marketing resources and skills	Market intelligence		Firms with strong technical R&D tend to be market pioneers and high performing. Marketing R&D positively influences early followers' market performance only. Market intelligence influences late entrants' market performance
Ehie and Olibe (2010)	Empirical (Longitudinal study of undisclosed number of US firms over 18-years)	Product/service development	Firm size, industry concentration, and leverage		Market value	Investment in R&D contributes positively to firm performance for both manufacturing and service firms, despite major economic disruptions

Figure 3 identifies that many studies investigating the impact of investment on business performance use surveys to collect data. This is because these studies look at a narrow range of variables. By doing so, they are limited in terms of the relationships they identify. Many of these studies are not longitudinal and therefore do not examine the impact of investment over time. The research presented in this thesis looks at a broader range of investments over a longer period of time, and therefore requires a different methodological approach (to previous studies). The approach taken by this research is discussed in the next chapter. The remaining sections of this chapter examine the conflicting findings of the previous studies outlined in figure 3. The significant relationships identified by figure 3 are summarised in figure 4. This helps to identify six significant relationships to date, three of which are inconclusive.

Figure 4: Significant relationships identified by the research shown in figure 3

Investment measures (grouped by type of organisation and type of investment)		Positive relationships with performance		No relationship with performance	
		Operational	Financial	Operational	Financial
Service organisations					
Process	IT capability	Jurison (1996) Francalanci and Galal (1998) Devaraj and Kohli (2003)	Devaraj and Kohli (2003)	-	Beccalli (2007)
Product/services	New product development programmes	-	Bismillahir et al (2012)	-	-
Manufacturing organisations					
Process	IT capability	Brynjolfsson and Hitt (1996) Hitt and Brynjolfsson (1996) Dedrick, Gurbaxani and Kraemer (2003)	Weill (1992)	Hu and Plant (2001)	Hitt and Brynjolfsson (1996) Hu and Plant (2001)
	Process capability	Morita et al. (2011)	-	-	-
People	Training and development	-	-	-	Ankarhem et al. (2010)
Product/services	Product diversification	-	Nath and Ramanthan (2010)	-	Niromand et al. (2012)
	Market diversification	-	Nath and Ramanthan (2010) Niromand et al. (2012)	-	-

Although figure 4 shows that some research in service organisations found performance was positively impacted by process investment (Jurison, 1996; Francalanci and Galal, 1998; Devaraj and Kohli, 2003) and product/service development (Nath and Ramanthan, 2010), this

was not the case in all studies (Beccalli, 2007). The reason for these conflicting results might be because the studies use different measures or look at investment-performance relationships at a single point in time across organisations serving markets with different needs, stability and levels of competition, which will significantly affect how quickly and how much performance improves. This may be why previous studies have not identified conclusive relationships between investment and performance within service organisations.

Whilst many of the studies outlined in figure 4 look at a narrow range of variables, the inconsistency of their findings suggest that other factors (than those studied) impact the relationship between investment and performance. These factors are not identified by previous studies but may include the nature of the market served by the service organisation, and its level of competition and access to resources. The research presented here looks at these factors and is not limited by a small number of variables. Unlike previous studies, this research looks at a broad range of investments and shows how these investments impact performance in different markets (size, type and stability) with different levels of competition (number, type and concentration of competitors) and different access to resources (staff, customers and financial capital). In doing so, the research develops an understanding of how a broad range investments impact performance over time.

2.7 Summary and conclusions

This chapter identifies that operations management literature is divided into manufacturing and service based research, because the characteristics of manufacturing and service organisations vary in several ways due to the nature of their delivery systems. This chapter focuses on service operations, due to the objective of this thesis, and begins by explaining how to measure performance within a service organisation. A number of measures are then discussed including financial, operational and competitive.

Next, an existing body of literature is analysed which discusses multiple theoretical perspectives including world-class performance. It is important to note that the chapter does not look at factors causing a service organisation to fail. Instead, it looks at the link between investment and performance over time and in different markets. Previous studies are limited and have focused predominantly on manufacturing firms and the research to date has been predominantly operational and not strategic (Johnston, 1999). Few studies investigate the direct impact of investment on performance. Studies which do investigate the direct impact conclude mixed results and focus on single areas of investment. No studies investigate the direct or collective impact of investment on competitiveness. Instead, studies investigate investment impact on operational performance (operational capability, efficiency, productivity, cost and/or process flexibility) and financial performance (sales, profit, return on assets, return on equity and/or return on capital employed). The majority of studies investigate singular areas of investment. These include the impact of people, process and information technology (IT), reducing environmental impact and the impact of marketing/PR investment on business performance. Consequently, there is a need to conduct research to explore the longitudinal impact of investment within service organisations. The research presented here attempts to address these inconsistent findings by exploring the impact of leadership, structure, process and systems investments on operational, financial and competitive performance in service organisations over time.

Schools were selected as case studies because they are representative of a service organisation for five reasons. Firstly, they provide a similar service to each other and are measured using nationally

regulated performance metrics (operational, financial and competitive). Secondly, they operate in different ways (using different leaders, structures, processes and systems) in different markets (which vary in size and student type). Thirdly, they have different access to resources (which vary in access to staff, students and money). Fourthly, they have different levels of competition (number, type and concentration of competitors). By analysing schools, the research presented here aims to understand two questions: firstly, how does investment impact business performance in different markets? and secondly, how does this relationship vary over time? Providing answers to these questions will contribute to the existing body of knowledge in three ways. Firstly, by looking at organisations who have made a broader range of investments than those in previous studies. Secondly, by showing how these investments impact performance in markets with different stability and levels of competition. Thirdly, by understanding how these investments impact performance over time. As a result, this research builds on the work of others (such as Angel and Rock, 2005; Brown, 2001; Ike et al., 2010; Iwata and Okada, 2011 and Morita et al., 2011) and addresses the call for longitudinal studies to help service organisations understand how to improve business performance over time (Gammeltoft et al., 2010; Jonas, 2010; Hill and Cuthbertson, 2011).

3. Research Methodology

3.1 Introduction to chapter

The research presented here aims to understand two questions. Firstly, how does investment impact business performance in different markets? And, secondly, how does this relationship vary over time? To answer these questions, collaborations were created with twenty executives to identify eight schools located in different parts of the country (Inner city, Urban, Rural and Coastal), serving different markets, teaching different students (type and number) and performing differently (across a number of operational, financial and competitiveness measures) that were put into 'special measures' by OfSTED five years ago (meaning they were required to improve business performance or face closure). The research was able to isolate key investments, as certain variables remained constant using a case study methodology. This helped to understand the impact of different investments on operational, financial and competitiveness performance over time. The process took two years (between 2013 – 2015) and the findings from each case were then written up into a 31 to 42 page report, which was referred back to each school studied to ensure the data had been interpreted correctly. A cross-case analysis was then completed to identify the different investments made, their impact on performance and the factors affecting their impact. This chapter now explains this process in detail and consists of eight main sections:

1. **Philosophical position** - the chapter begins by discussing the philosophical position adopted within the research, which creates an understanding of the role of theory within the research method adopted.
2. **Research philosophy** - next, the research philosophy is established.
3. **Methodologies available** – then, a review is made of the methodologies available.
4. **Methodology chosen** - having debated the alternative approaches available, the research method chosen is then analysed in detail.
5. **Data collection methods used** – given the methodology chosen, the data collection methods available are compared before highlighting those used within the research.
6. **Methods and process of data analysis** – once the data had been collected, it is then analysed using a series of methods.
7. **Ensuring validity, generalisability and reliability** – the tactics used within the research to ensure that the findings are valid, generalisable and reliable are discussed.
8. **Summary and conclusions** – finally, the key points of the chapter are highlighted and summarised.

3.2 Philosophical position

To establish a philosophical position, it is important to understand the learning process that occurs within a research program (Guba, 1990). According to Kolb et al. (1979: 38), the learning process is an 'experiential learning cycle' beginning with the experience of an event. This experience creates explanations of how or why something occurred, and why it occurred the way it did. Explanations can be extrapolated (or generalised) and conclusions determined. These conclusions can be applied to new events; this sequence is represented in the right hand side of the learning cycle. Learning can also occur in the left hand side of the learning cycle and "in either case whether the rule is received or generated out of the prior experience and reflection, its testing in new situations creates new experiences which enable consequent reflection, observation and ultimately new rules" (Kolb et al., 1979: 39).

Figure 5: Kolb's experiential learning cycle
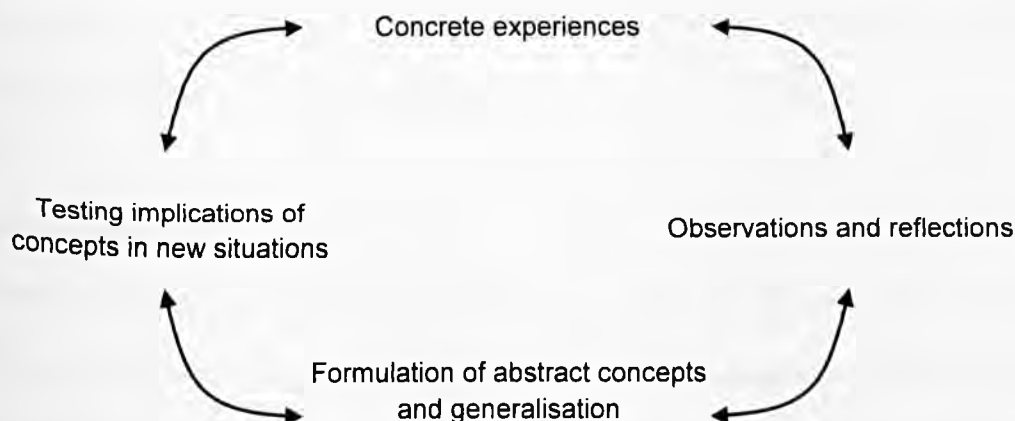
Note: Taken from Kolb et al. (1979: 38).

These two alternative processes of learning have, in turn, developed two schools of thought in terms of the role of theory within research methods:

- Deductive: "a deductive research method entails the development of a conceptual and theoretical structure prior to its testing through empirical observation. Deduction in this sense corresponds to the left hand side of Kolb's experiential learning cycle since it begins with abstract conceptualisation and then moves on to testing through the application of theory so as to create new experiences or observations" (Gill and Johnson, 1997: 28). Deductive

44

research is responsible for testing theory rather than building theory. Popper (1961: 16) agrees, suggesting "wherever we try to propose a solution to a problem, we ought to try as hard as we can to overthrow our solution rather than defend it".

- Inductive: "the logical ordering of induction is the reverse of deduction as it involves moving from the 'plane' of observation of the empirical world to the empirical world of the construction of explanations and theories about what has been observed. In this sense, induction relates to the right-hand side of Kolb's learning cycle, i.e. learning by reflecting upon particular, past experiences and through the formulation of abstract concepts, theories and generalisations that explain past, and predict future, experience" (Gill and Johnson, 1997: 33). Inductive research is responsible for building theory, rather than testing theory. Merton (1968: 103) agrees, suggesting "it is my central thesis that empirical research goes far beyond the passive role of verifying and testing theory; it does more than confirm or refute hypotheses".

This thesis concerns hypothesis generation because it follows a process of induction. Therefore, a research program has been adopted to help build and develop theory (Merton, 1957) by developing propositions and models that can be tested later on.

3.3 Research Philosophy

Having established that the research concerns hypothesis generation, the next section of the methodology concerns the research philosophy and paradigm adopted. Paradigms support different types of study and shape research design and methods (Squire et al, 2005). Mature sciences are, at any given time, guided by one prevailing paradigm (Kuhn, 1970). Social sciences, on the other hand, are 'pre-paradigmatic' (Kuhn, 1970) because researchers adopt diverse approaches. Management studies fit the latter because of values including representativeness, inclusiveness and theoretical and methodological diversity (Pfeffer, 1993). According to Guba and Lincoln (1994:107-8), each paradigm varies in its basic belief regarding three questions that form the foci on which they analyse each paradigm.

o Ontology considers questions of the subject of being, the most abstract concepts that underlie more specific descriptions of everyday phenomenon. The ontological question – what is the form and nature of reality and, therefore, what is there that can be known about it? (Benton and Craib, 2001)

o Epistemology is the theory of knowledge (Delanty and Strydom, 2003; Johnson and Duberley, 2000). The epistemological question – what is the nature of the relationship between the knower orwould-be knower and what can be known?

o Methodology focuses on the best means for gaining knowledge about the world (Denzin and Lincoln, 1994). The methodological question – how can the inquirer (would-be knower) go about finding out whatever he or she believes can be known?

Figure 6: Basic beliefs (metaphysics) of alternative inquiry paradigms

Item	Positivism	Post-positivism	Critical theory et al	Interpretivism
Ontology	Naïve realism – "real" reality but apprehendable	Critical realism – "real" reality but only imperfectly and probabilistically apprehendable	Historical realism – virtual reality shaped by social, political, cultural, economic, ethnic, and gender values; crystallised over time	Relativism – local and specific constructed realities
Epistemology	Dualist/objectivist; findings are true	Modified dualist/objectivist; critical tradition/community; findings probably true	Transactional/ subjectivist; value-mediated findings	Transactional/ subjectivist; created findings
Methodology	Experimental/ manipulative; verification of hypotheses; chiefly quantitative methods	Modified experimental/ manipulative; critical multiplism; falsification of hypotheses; may include qualitative methods	Dialogic/ dialectical	Hermeneutical/ dialectical

Note: Taken from Guba and Lincoln (1994: 112).

"Paradigm issues are crucial", suggest Guba and Lincoln (1994: 116). "No inquirer ought to go about the business of inquiry without being clear about just what paradigm informs and guides his or her research." Four paradigms exist: positivist, post-positivist, critical theory and interpretivist.

- Positivist research is guided by an understanding that natural and social sciences share common logical and methodological principles (Hughes and Sharrock, 1997; Wilson, 1995). Variances between sciences are attributed to the maturity of the field (Neuman, 2000) and diminish over time (Squire et. al 2005). This approach requires the subject of research and object of interest to be independent. As such, research teams adopt a 'disinterested scientist' persona (Squire et. al 2007) and ensure findings are not influenced by personal, ethical, moral, social or cultural values (Delanty and Strydom, 2003). Methods used by positivist research favour the quantitative (Neuman, 2000) and orientate towards predicting the social world rather than understanding it (Delanty and Strydom, 2003), as well as regulating the behaviour of the objects within society (Benton and Craib, 2001).

- Post-positivist research is more tempered than positivist research with regard to the social world. Post-positivists consider the world impossible to fully perceive, with humans' imperfect sensory and intellectual capabilities (Letoumeau and Allen, 1999). Rather than adopting a 'disinterested scientist' persona, research teams favour observation occurring within the context of theory. This is because post-positivists suggest facts are only probabilistic, not deterministic (Squire et Al., 2007). Methods used by post-positivist research recognise the fallibility of single method research and support the use of critical multiplism, which is an extended version of triangulation (Guba and Lincoln, 1994). As a result "methods are selected on the basis of their apparent appropriateness to the research question and will often be combined in an attempt to overcome the bias inherent in single method designs." (Squire et al 2005).

- Critical theory challenges positivism, describing positivist research as "narrow, antidemocratic and non-humanist in its use of reason" (Neuman, 2000: 76). Kincheloe and Mclaren (2000) suggest critical theory is difficult to define precisely, though in a broad sense it is reflexive and its aim is critique, transformation and emancipation (Denzin and Lincoln, 1994). Critical theory uses realist style ontology, though unlike in positivism, "meaning is not considered to exist

apart from any consciousness, but is constructed through our interactions with reality." (Squire et al 2007). Methods used by critical theorists favour action research methods, as this type of method can stimulate change. Interpretivism "is derived from a subjective epistemology that holds that meaning does not exist apart from human consciousness, but is forcibly imposed on the object by the subject." (Squire et al 2005).

- Interpretivism challenges positivist studies as "the researcher and subject are not assumed to be independent, but are interdependent so that any findings are co-created as the investigation proceeds." (Guba and Lincoln, 1994). Methods used by interpretivists favour participant observation and ethnographic studies to investigate large quantities of qualitative data. The purpose of which is to "create understanding of how subjects create meaning in everyday life." (Neuman, 2000: 25).

As previously stated, the thesis concerns building theory inductively. This approach is post-positivistic (Wilson and Vlosky, 1997) rather than positivist. Post-positivists suggest that reality is not apprehended, merely approximated (Guba, 1990). Such a perspective does not assume objective reality. Instead, discovery and verification of theory is emphasised (Guba, 1990). The approach seeks to validate empiricism through induction. Induction supports the empirical world of explanation and establishes theory through observation (Kolb et al., 1979). Observation is supported by formulation of abstract concepts, theory and generalisation that explain past, present and future experience (Gill and Johnson, 1997). "This approach (perspective and method) is in the realm of post-positivism" (Wilson and Vlosky, 1997: 59).

3.4 Methodologies available

Literature identifies seven possible research designs (Goodman and Kruger, 1988; Yin, 1994; Gill and Johnson, 1997; Bell, 1999):

- Experiments
- Surveys
- Case studies
- Histories
- Action research
- Ethnography
- Narrative inquiry

Although each design supports post-positivistic research, the relative merits must first be discussed. Each research design is discussed in figure 7, which leads to an understanding of which methodology to adopt.

Figure 7: Brief descriptions of the alternative research designs identified within the literature

Research design	Brief description
Experiments	An experimental approach to research involves four basic steps, outlined by Hill (2004). First, delineate the experimental research question or problem. Second, identify factors that explain or cause variation in the dependent variable. Third, operationalise the dependent and independent variables. Fourth, neutralise the effects upon the dependent variable. Experimental research "attempts to provide a blueprint that enables the researcher to structure a research problem in such a way that the outcome is the production of valid, objective and replicable answers" (Gill and Johnson, 1997: 39). However, such an approach may not be most effective, as this research study does not limit focus to variables. Rather, research implementation is founded on relationships with key players and operations executives, resulting in a thorough environmental context and understanding, hence this methodology is not suitable. Underpinning assumptions of research require an inductive approach rather than an inductive approach; research should build not test theory, hence this methodology is not suitable.
Surveys	Surveys involve the collection of information from individuals. This can be achieved through various methods, including questionnaires, telephone conversations and face to face interviews. Once an appropriate level of information has been collected, "it can be analysed, patterns extracted and comparisons made across the sample group" (Bell, 1999: 13). It is common for a sample group that represents a proportion or segment of the population to be selected. However, consistency is required between epistemological and methodological positions (Blanche and Durrheim, 1999), hence this methodology is not suitable.
Case studies	Case study research design can be described as an umbrella term for a family of research methods having in common the decision to focus an inquiry around an instance. It is a research strategy that "focuses on understanding the dynamics present within single settings" (Eisenhardt, 1989: 534) and can involve either single or multiple cases and numerous levels of analysis (Yin, 1984).
Histories	As a research process, historiography is difficult to define and explicate. Although it is easy to describe the steps that the historian follows, it is significantly harder to understand the process that he or she follows. Its research method can be defined as having three broad stages (Goodman and Kruger, 1988: 315): a. Formulate research question b. Examine evidence c. Compare evidence and research question

Action research	Action research involves creating knowledge from a specific action and is supported by Cohen (1977) and Coughlan and Coghlan (2002), who describe it as "a procedure designed to deal with a concrete problem located in an inadequate situation" (2002; 25). Action research uses a variety of mechanisms including questionnaires, diaries, interviews and case studies to ensure that research feedback is translated into modifications, adjustments, directional changes and redefinitions (Hill, 2004). Cohen (1977) argues this is necessary to ensure prolonged benefits of the process itself, rather than a future occasion. However, consistency is required between epistemological and methodological positions (Blanche and Durrheim, 1999), hence this methodology is not suitable.
Ethnography	An ethnographic approach to research involves studying society or some aspect of a society, culture or group in depth (Bell, 1999). The quality of ethnographic research relies on detailed observation and testing of theory. This enables "researchers to share the same experiences as the subjects, to understand better why they acted in the way they did and to see things as those involved see things" (Denscombe, 1998: 69). However, consistency is required between epistemological and methodological positions (Blanche and Durrheim, 1999), hence this methodology is not suitable.
Narrative inquiry	A narrative approach to research involves the collection and development of narrative, either as a form of data collection or as a means of structuring a research project (Hill, 2004). Narrative can be collected through an interview setting, as the researcher listens and attempts to understand spoken 'stories'. However, underpinning assumptions of research require validity to underpin design and data collection, supported by induction. Unless supported by triangulation, a narrative approach will investigate single, not multiple aspects of the investment-fit-performance triangle, hence this methodology is not suitable.

The two questions answered by this research are 'how and why' as opposed to 'who, what, where, how many and how much' (Yin, 1994: 6). 'How and why' questions are more explanatory and lead to the use of case studies, histories and experiments. Experiments are introduced when an investigator can manipulate behaviour directly, precisely and systematically, which reflects the fact that they tend to occur in a laboratory or in a field setting, as social experiments. Whereas, case study and history designs are more suitable when the researcher is unable to control behavioural events. Of these two, the case study is preferred in examining contemporary events. It "relies on the same techniques as a history, but it adds two sources of evidence not usually included in the historian's repertoire: direct observation and systematic interviewing" (Yin, 1994: 8). The research presented in this thesis focuses on contemporary events and does not require control over the behavioural proceedings being investigated (Yin, 1994), with a relatively full understanding of the nature and complexity of the phenomenon being studied (Benbasat et al., 1987; Eisenhardt, 1989; Meredith, 1998; Voss et al., 2002; Yin, 1994). Therefore, a case study design is the most appropriate method.

3.5 Methodology chosen

As stated in the previous section, a case study strategy has been adopted in the research. A case study "is a history of past or current phenomenon, drawn from multiple sources of evidence" (Leonard-Barton, 1990). A case study approach to research focuses upon understanding various dynamics within a particular setting. Each setting can include single or multiple cases, which contain various levels of analysis within (Yin, 1984). A case study approach allows the questions of what, why and how to be answered with a relatively full understanding of the nature and complexity of the phenomenon being studied (Benbasat et al., 1987; Eisenhardt, 1989; Meredith, 1998; Voss et al., 2002; Yin, 1994). There are four classifications of case studies (Voss et al, 2002), which are identified in figure 8. Exploratory case study research focuses on identifying "areas that may develop into theory." (Stuart et al, 1998; Raturi et al, 1990). Theory building case study research focuses on identifying key variables and exploring key linkages and relationships between those variables (Mukherjee et al, 2000; Jack and Raturi, 2002).

Figure 8: Matching research purpose with methodology

Purpose	Research question	Research structure
Exploration		
Uncover areas for research and theory development	Is there something interesting enough to justify research?	In-depth case studies Unfocused, longitudinal field study
Theory building		
Identify/describe key variables Identify linkages between variables Identify 'why' these relationships exist	What are the key variables? What are the patterns or linkages between variables? Why should these relationships exist?	Few focused case studies In-depth field studies Multi-site case studies Best-in-class case studies
Theory testing		
Test the theories developed in the previous stages Predict future outcomes	Are the theories we have generated able to survive the test of empirical data? Did we get the behaviour that was predicted by the theory or did we observe another unanticipated behaviour?	Experiment Quasi-experiment Multiple case studies Large-scale sample of population
Theory extension/refinement		
To better structure the theories in light of the observed results	How generalisable is the theory? Where does the theory apply?	Experiment Quasi-experiment Case studies Large scale sample of population

Note: Taken from Voss et al. (2002: 198).

The purpose of this thesis is to build theory by identifying key variables, identifying linkages between these variables and identifying 'why' these relationships exist (Voss et al., 2002: 198). Consequently, a case study research design is adopted that "focuses on understanding the dynamics present within single settings" (Eisenhardt, 1989: 534) and involves numerous levels of analysis (Yin, 1984). This approach builds theory and is outlined in figure 9.

Figure 9: Process of building theory from case study research

Step	Activity	Reason
Selecting cases	Neither theory nor hypotheses	Retains theoretical flexibility
	Specified population	Constrains extraneous variation and sharpens external validity
	Theoretical, not random, sampling	Focuses efforts on theoretically useful cases – i.e. those that replicate or extend theory by filling conceptual categories
Crafting instruments and protocols	Multiple data collection methods	Strengthens grounding of theory by triangulation of evidence
	Qualitative and quantitative data combined	Synergistic view of evidence
Entering the field	Overlap data collection and analysis, including field notes	Speeds analyses and reveals helpful adjustments to data collection
	Flexible and opportunistic data collection methods	Allows investigators to take advantage of emergent themes and unique case features
Analysing the data	Within-case analysis	Gains familiarity with data and preliminary theory generation
	Cross-case pattern search using divergent techniques	Forces investigators to look beyond initial impressions and see evidence through multiple lenses
Shaping hypotheses	Iterative tabulation of evidence for each construct	Sharpens construct definition, validity, and measurability
	Replication, not sampling, logic across cases	Confirms, extends, and sharpens theory
	Search evidence for "why" behind relationships	Builds internal validity
Enfolding literature	Comparison with conflicting literature	Builds internal validity, raises theoretical level, and sharpens construct definitions
	Comparison with similar literature	Sharpens generalisability, improves construct definition, and raises theoretical level
Reaching closure	Theoretical saturation when possible	Ends process when marginal improvement becomes small

Note: Taken from Eisenhardt (1989: 533).

There are many reasons for adopting this theory building approach, including the exploration of certain phenomena within a particular context or unit of analysis (Hill, 2004). This is further supported by Meredith (1998) and Bebensat et al (1987), who suggest the following:

1. The phenomenon can be studied in its natural setting and meaningful, relevant theory generated from the understanding gained through observing actual practice;

2. The case method allows the questions of why and how to be answered with a relatively full understanding of the nature and complexity of the complete phenomenon;

3. The case method responds well to early, exploratory investigations where variables are still unknown and the phenomenon not at all understood.

3.5.1 Case Study Design

Theorists including Goodman and Kruger (1988) and Bell (1999) support the use of case study research when investigating a specific industry. Saunders, Lewis and Thornhill (2009) argue that a case study approach "can enable the researcher to build theory and provide a source of new research" (Saunders, Lewis and Thornhill: 147). This type of methodology enhances observation (Yin, 1994) and validates hypothesis generation through building theory (McCutcheon and Meredith, 1993). Case study approaches have been used in similar investigations within operations management literature, displayed within figure 10.

Figure 10: Examples of case study implementation thorough operations management research

Study	Research questions	# cases	Other methods	Purpose
Meredith and Vineyard (1993)	How can we better understand the role of manufacturing technology in the firm's business strategy?	3	-	Theory refinement
MacDuffie (1995)	Which management initiatives are most effective?	6	Survey, interviews, direct observation	Theory testing
Narasimhan and Jayaram (1998)	What are the unique aspects of service operations that lead to differences in the way a reengineering project should be carried out in a service context?	1	-	Theory building

Ahlstrom et al. (1998)	Why is diagnostic benchmarking used? How is diagnostic benchmarking used or not used by companies to improve manufacturing performance?	15	Longitudinal study. Two case visits 18 months apart. Survey	Theory extension
Pagell and Krause (1999)	Is there a relationship between the firm's external environment and its internal level of operational flexibility? Do firms align their level of operational flexibility with their level of uncertainty in the external environment?	30	Survey	Theory testing
Boyer and McDermott (1999)	Is there strategic consensus in operations strategy across different organisational levels?	7	Survey	Theory testing
Hyer et al. (1999)	What are the significant elements in a comprehensive cell design process and how are they related? How will the application of STS principles influence and enhance a cell system design? Of the elements in the comprehensive cell system design, which ones appear to be the most significant determinants of sustainable success?	1	-	Theory refinement
Lamming et al. (2000)	How are different types of supply networks created and operated?	16	Survey	Theory building
Hill (2004)	Does internal strategic fit exist within service businesses? Do firms consciously create internal strategic fit within their business? What elements are present in a situation of fit or lack of fit? How can fit or lack of fit within a business be best presented?	8	Survey, interviews, direct observation	Theory building

Note: Taken from Hill (2004: 102).

3.5.2 Sampling

The examples within figure 10 demonstrate a varied number of cases (from one to thirty), and a range of different type of cases selected. The decisions to select the number and types of cases are influenced by sampling. Case study research often adopts purposive sampling (Squire et Al., 2005). Purposive samples select units which contain features, behaviours or characteristics that enable a detailed understanding of the phenomena under study (Ritchie et al, 2003). As a result, case study samples are often smaller than survey research samples, and research teams use analytical generalisations (Stuart et al., 2002) to reach subjective judgement, rather than inferential statistics. This means that case study research is extremely time, cost and resource intensive (Ritchie et al.,

2003) and is supported by replication rather than sampling logic (Yin, 1994). "Repeated evidence has little to offer to the findings of the overall study." (Squire et Al., 2007), because the richness and density of data generated by case study research can only be accurately analysed for small sample sizes (Yin, 1994). When selecting the number and type of cases to investigate, it is important to consider the relative advantages and disadvantages, highlighted further within figure 11. When building theory through case study design, it is advantageous to select multiple cases to augment external validity and reduce observer bias.

Figure 11: Number and type of cases

Choice	Advantages	Disadvantages
Single cases	Greater depth	Limits on the generalisability of conclusions drawn. Biases such as misjudging the representatives of a single event and exaggerating easily available data
Multiple cases	Augment external validity, help reduce observer bias	More resource needed, less depth per case
Retrospective cases	Allow collection of data on historical events	May be difficult to determine cause and effect, participants may not recall important events
Longitudinal cases	Overcome the problems of retrospective cases	Have long elapsed time and thus may be difficult to do

3.5.3 Case selection

Voss et al. (2002: 203) suggest that when building theory from case studies, case selection using replication logic rather than sampling logic should be used. Each case should be selected so that it predicts similar results to the other case studies (literal replication) or produces contrary results to the other case studies but for predictable reasons (theoretical replication). As a result, partnerships were created with twenty executives to ensure that cases were selected using theoretical replication. This steering group helped to select eight academy schools at least five years old located in different parts of the country (Inner city, Urban, Rural and Coastal) that served different markets, taught different students and performed differently using the measures shown in figure 12.

Academy schools were selected because they are representative of service organisations. Firstly, they self-generate revenue and can decide which markets to operate in. Secondly, they deliver services which are consumed at the point of delivery and, in doing so, are service organisations with economic, social and environmental objectives. These three objectives were explored by the research and were reflected by the selection of financial, operational and competiveness performance measures. By looking at eight schools, the research was able to isolate certain variables as others remained constant. This is because schools provide a similar service to each other and share a level of standardisation in terms of their service delivery. In addition, they are measured using nationally regulated performance metrics. Whilst these variables remained constant, a number were varied because the eight schools selected served different markets (Inner city, Urban, Rural and Coastal) and taught different students (type and number). Each market had different access to resources (varying access to staff, students and money) and different levels of competition (number, type and concentration of competitors). This meant each school operated in different ways, using different leaders, structures, processes and systems. As a result, they performed differently (across a number of operational, financial and competitiveness measures identified in figure 12).

Figure 12: Market and performance variables used to understand the five-year journeys

Dimension and variable	Measure
Markets served	
Size	Total number of secondary students living within 2 miles from the school
Competitors	Number of competing secondary schools within 2 miles from the school
Students taught	
Number	Number or students taught within the year
Ethnicity	Percentage of students taught who classify themselves as 'white'
Motivation	Percentage of students taught who live more than 1 mile from the school
Operational performance	
OfSTED	Grading awarded by OfSTED inspectors during their last visit
Exam results	Percentage of students graduating in Year 11 with five or more Grade A*-C (Including English and Maths) GCSEs
Financial performance	
Sales revenue	Annual earnings
Operating profit	Annual operating profit as % sales revenue
Competitiveness	
Student applications	Number of student applications received that year as a percentage of the available teaching capacity

Distance students are prepared to travel	Percentage of applications from students living more than 1 mile from the school
Market share	Number of students taught as a percentage of the average number taught by its competitors less than 1 mile away

By selecting schools which had been put into 'special measures' by OfSTED five years ago (meaning they were required to improve business performance or face closure), the research was able to follow eight performance journeys over time (using measures identified in figures 14 and 15). This is because each school made investments to improve leadership, structures, processes and systems. This helped the research to understand the impact of investments on operational, financial and competitiveness performance over time. These investment measures are identified in figure 13.

Figure 13: Investment measures tracked over five years in each case study

Dimension and variable	Measure
Leadership	Number and capacity
Objectives	Measures and targets
Marketing	Level and type
Service or product	Design and range
Structures	Management and organizational
Systems	Information, performance, reward and development
Processes	Activities, equipment and capability
People	Number and capability

Figure 14: Investment and performance variables tracked over five years in each case study

Dimension and variable	Definition
OfSTED	
Achievement of pupils	Grading during last visit
Teaching quality	Grading during last visit
Behaviour and safety	Grading during last visit
Leadership and management	Grading during last visit
Overall	Grading during last visit
Exam results	
Primary	% students graduating with Level 4+
Secondary	% students graduating with 5+ Grade C, 5+ B and 5+ A GCSEs (including Maths and English)
Revenue	
Teaching	Annual earnings
Non-teaching	Annual earnings from non-teaching offerings
Costs	
Teaching	Annual teaching costs
Non-teaching	Annual non-teaching costs
Operating profit	Annual operating profit as % revenue

Students		
Applications	Received, rejected and accepted (from students living within and outside 1 mile)	
Class capacity	Primary, secondary and sixth form class capacity	
Teacher capacity	Primary, secondary and sixth form teachers	
Number	Primary, secondary and sixth form students taught	
Motivation	% who live >1 mile from the school	
Incidents	Annual recorded 'incidents'	
Attendance	% primary, secondary and sixth form students attending classes	
Exclusions	Fixed term and permanent exclusions	
Leavers	% secondary students going to school's sixth form, other sixth form college, further education college, apprenticeship, left education or unknown	
Teachers		
Recruited	Primary, secondary and sixth form teachers recruited in the year	
Number	Secondary and sixth form teachers	
Motivation	With no sickness, long term sick (>20 days) and number of days lost	
Salary	Average teacher salary for each student level (academic year)	
Left	Through natural attrition and from 'capability' programme	
Support staff		
Recruited	Recruited in the year	
Number	Support staff	
Motivation	With no sickness, long term sick (>20 days) and number of days lost	
Salary	Average salary for each type of role	
Left	Through natural attrition and from 'capability' programme	

Figure 15: Performance versus competitors tracked over five years in each case study

Dimension and variable	Definition
National trends	
Exam results	% students graduating with 5+ Grade C GCSEs (including Maths and English)
Progress	% secondary students progressing by 3+ levels that year
Attendance (%)	% secondary students attending classes
Local borough	
Student ethnicity	% students who classify themselves as Black or Black British, Chinese, White British, Arab, Asian or Asian British, Mixed or Not stated
Local competitors	
OfSTED	Grading during last visit
Exam results	% students graduating with 5+ Grade C GCSEs (including Maths and English)
Progress	% secondary students progressing by 3+ levels that year
Sales revenue	Annual earnings
Students	Primary, secondary and sixth form students taught
Student ethnicity	% students who classify themselves as Black or Black British, Chinese, White British, Arab, Asian or Asian British, Mixed or Not stated
Class capacity	Primary, secondary and sixth form class capacity
Teacher capacity	Primary, secondary and sixth form teachers
Student leavers	% secondary students going to school's sixth form, other sixth form college, further education college, apprenticeship, left education or unknown

By selecting a pair of schools from four different locations (Inner city, Urban, Rural and Coastal), the commonalities and differences of observed phenomena were highlighted (McCutcheon and Meredith,

1993). This diversity of location was advised by the steering group, and in doing so, reflected the aim of the research being undertaken (Eisenhardt, 1989; Yin, 1994), and the research questions to be answered, in terms of key variables, patterns or linkages between variables and any relationships that may exist (Voss et al., 2002: 203). Consistent findings emerged after looking at eight schools, and therefore theoretical saturation was reached. As a result, there was no need to select a third school from each location (and increase the total number of cases to 12). Eight cases helped to reach theoretical saturation because each pair made similar changes in similar markets. This was due to similar levels of competition and access to resources. Therefore, adding a third case would not find different results (as they too would be subject to similar levels of competition and access to resources). The eight schools selected as case studies are presented graphically in figures 16 – 19. Figure 16 identifies each market served before investments were made. This shows that Inner City and Urban schools served markets with a large potential (number of students within 2 miles) but small market share. This meant they could expand quickly by increasing the number of students from within 2 miles. In comparison, Rural and Coastal schools could not expand quickly because they served markets with a smaller potential. Interestingly, they also had a larger market share of their existing market, which is further reflected in figure 17. This helped to answer the first research question, because each school served a different market. Figure 18 identifies the type of students taught before investments were made. This shows that Inner City and Urban schools taught students of different ethnicities (because white British students were less than 75% of the total population). This meant they could access different types of students on their performance journey. In comparison, Rural and Coastal schools taught a large majority of white British students (almost 100% of the total population). This helped to answer the first research question, because each school served a different market containing different students (end users) which varied in size and type. Figure 19 identifies the quantity of students taught before investments were made. This shows that Inner City and Urban schools served markets larger than Rural schools but markets smaller than Coastal schools. Coastal schools had a large market share of their existing market but the fewest competitors and indicated a stable market. Whereas Inner City schools had a greater number, type and concentration of competitors (further reflected in in figure 20), which indicated an unstable market. This helped to

answer the first research question, because each school served a market with different stability and different levels of competition (number, type and concentration of competitors). Figure 18 identifies the performance of the schools before investments were made. This shows that all schools had similar levels of operational performance (exam results), which is why they were put into special measures by OfSTED. However, the Inner City and Urban schools had lower levels of financial performance (operating profit). This helped to answer the second research question, because each school had different access to resources, which varied in access to staff, students and money. As a result, different types of investments were made over the five year period, which helped the research to understand the relationship between investment and business performance over time.

Figure 16: Markets served by the schools before investments were made

Table 1: Inner City and Urban schools: Market share and market size
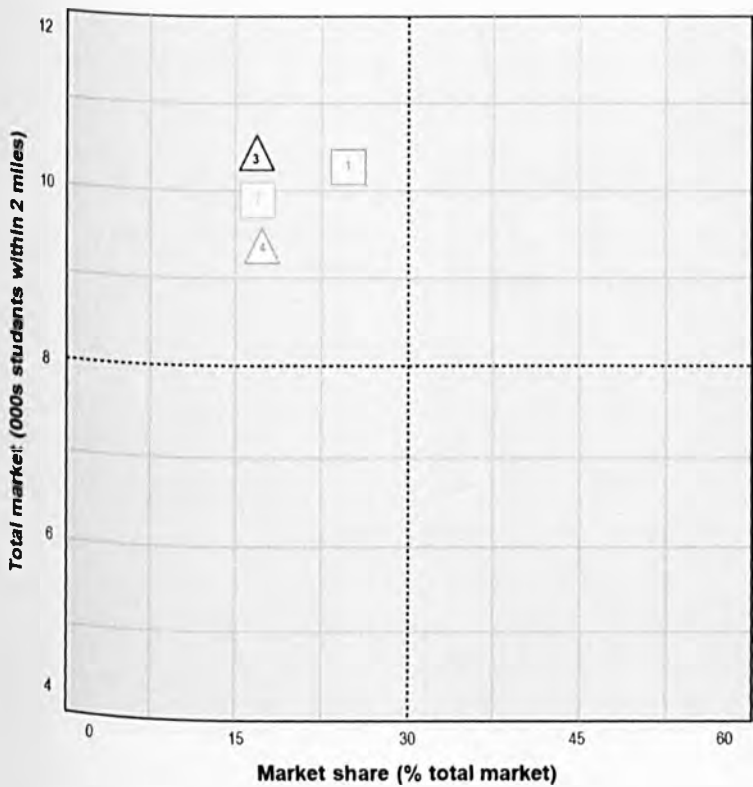
Table 2: Rural and Coastal schools: Market share and market size

Legend:

Symbol	Description
1	Inner City 1 (Case 1)
2	Inner City 2 (Case 2)
3	Urban 1 (Case 3)
4	Urban 2 (Case 4)
5	Rural 1 (Case 5)
6	Rural 1 (Case 6)
7	Coastal 1 (Case 7)
	Coastal 2 (Case 8)
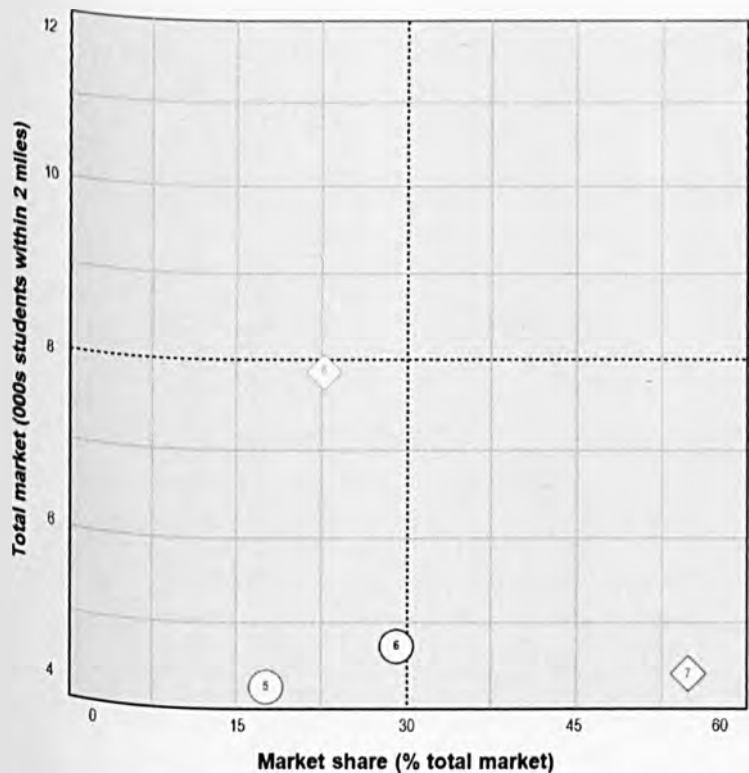
Figure 17: Type of students taught by the schools before investments were made

Table 3: Inner City and Urban schools: Ethnicity and motivation

Table 4: Rural and Coastal schools: Ethnicity and motivation

1	Inner City 1 (Case 1)
2	Inner City 2 (Case 2)
3	Urban 1 (Case 3)
4	Urban 2 (Case 4)
5	Rural 1 (Case 5)
6	Rural 1 (Case 6)
7	Coastal 1 (Case 7)
	Coastal 2 (Case 8)
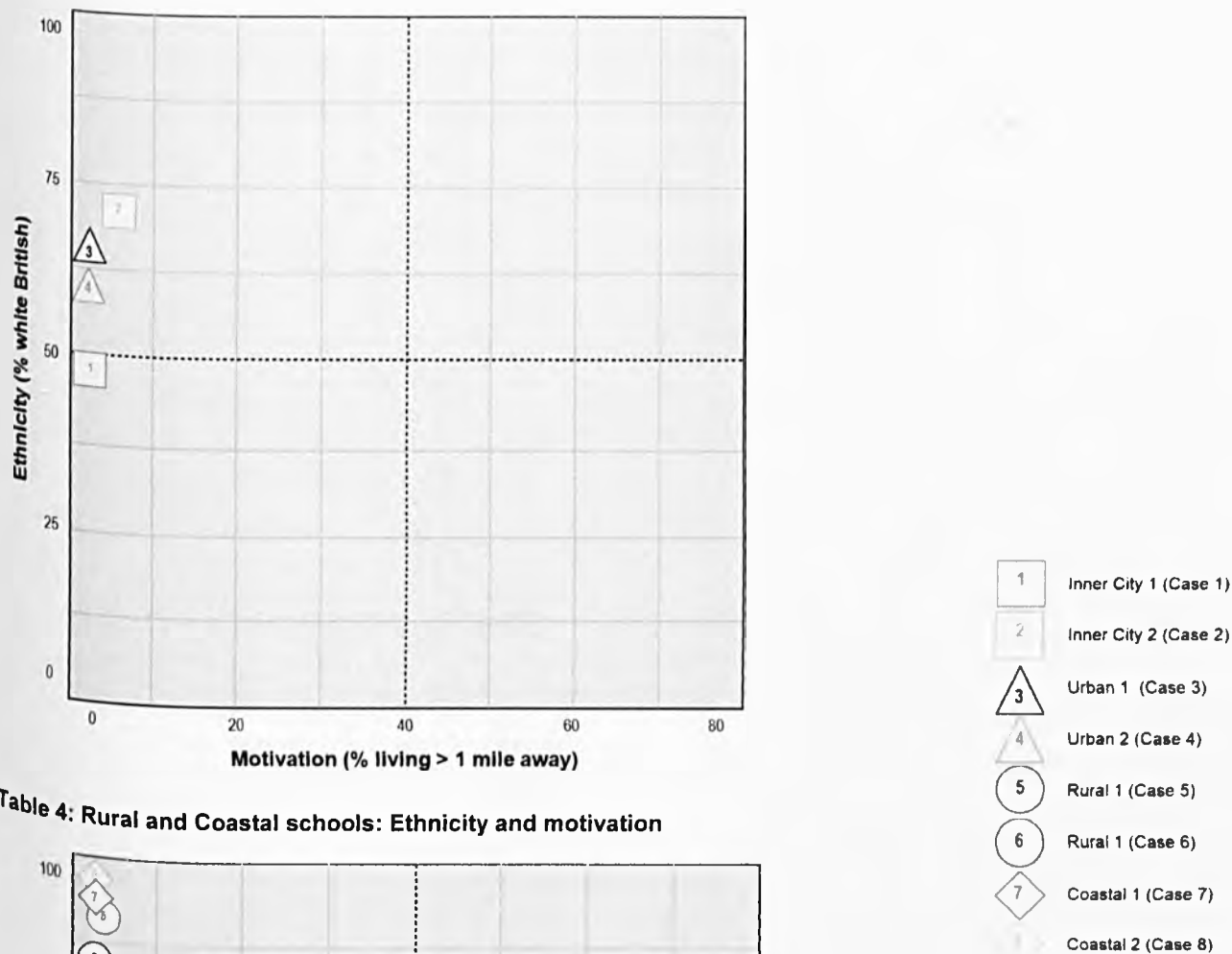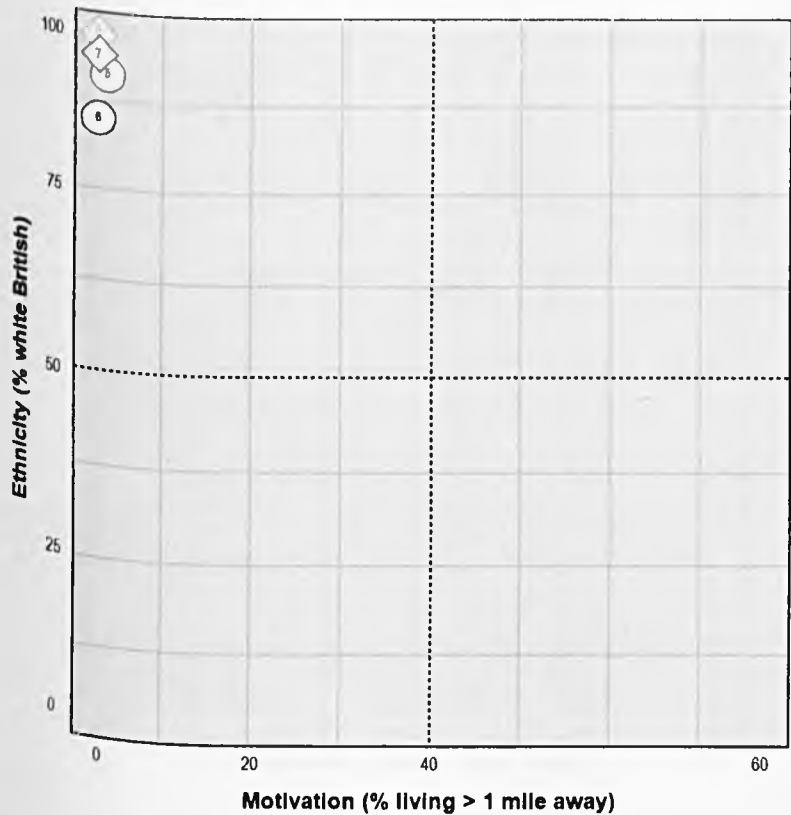
Figure 18: Quantity of students taught by the schools before investments were made

Table 5: Inner city and Urban schools: Number and motivation
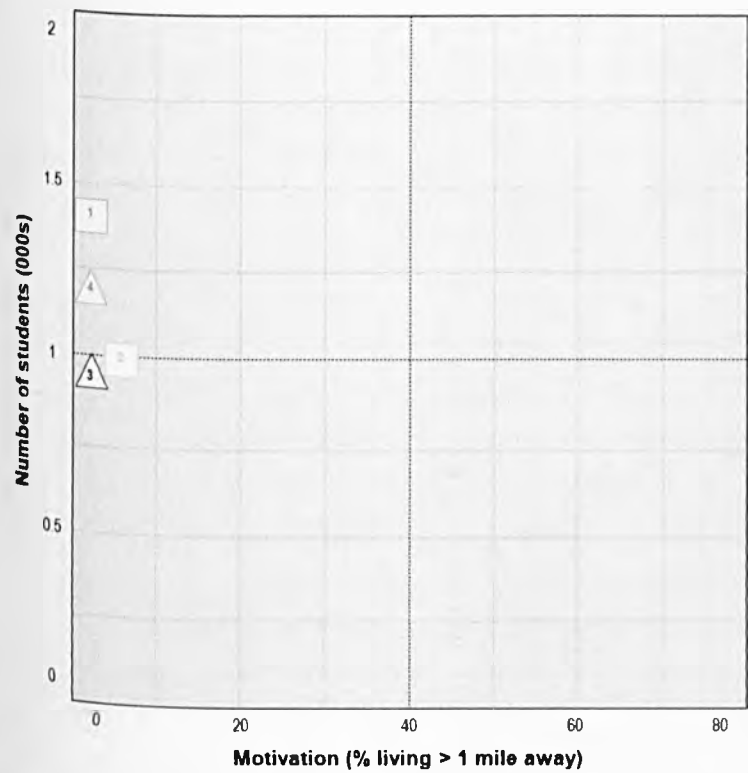
Table 6: Rural and Coastal schools: Number and motivation

1	Inner City 1 (Case 1)
2	Inner City 2 (Case 2)
3	Urban 1 (Case 3)
4	Urban 2 (Case 4)
5	Rural 1 (Case 5)
6	Rural 1 (Case 6)
7	Coastal 1 (Case 7)
	Coastal 2 (Case 8)
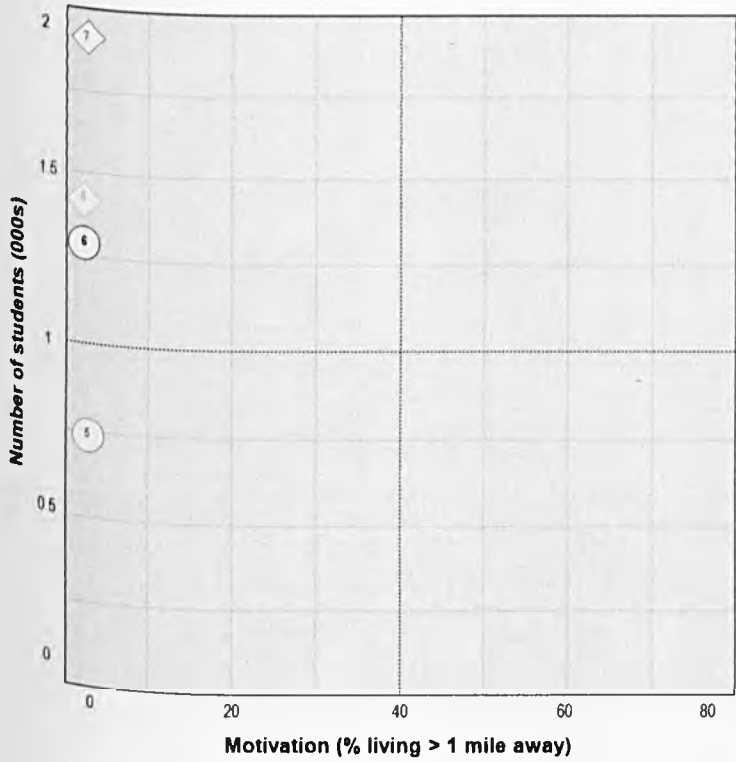
Figure 19: Performance of the schools before investments were made

Table 7: Inner city and Urban schools: Operational and financial performance
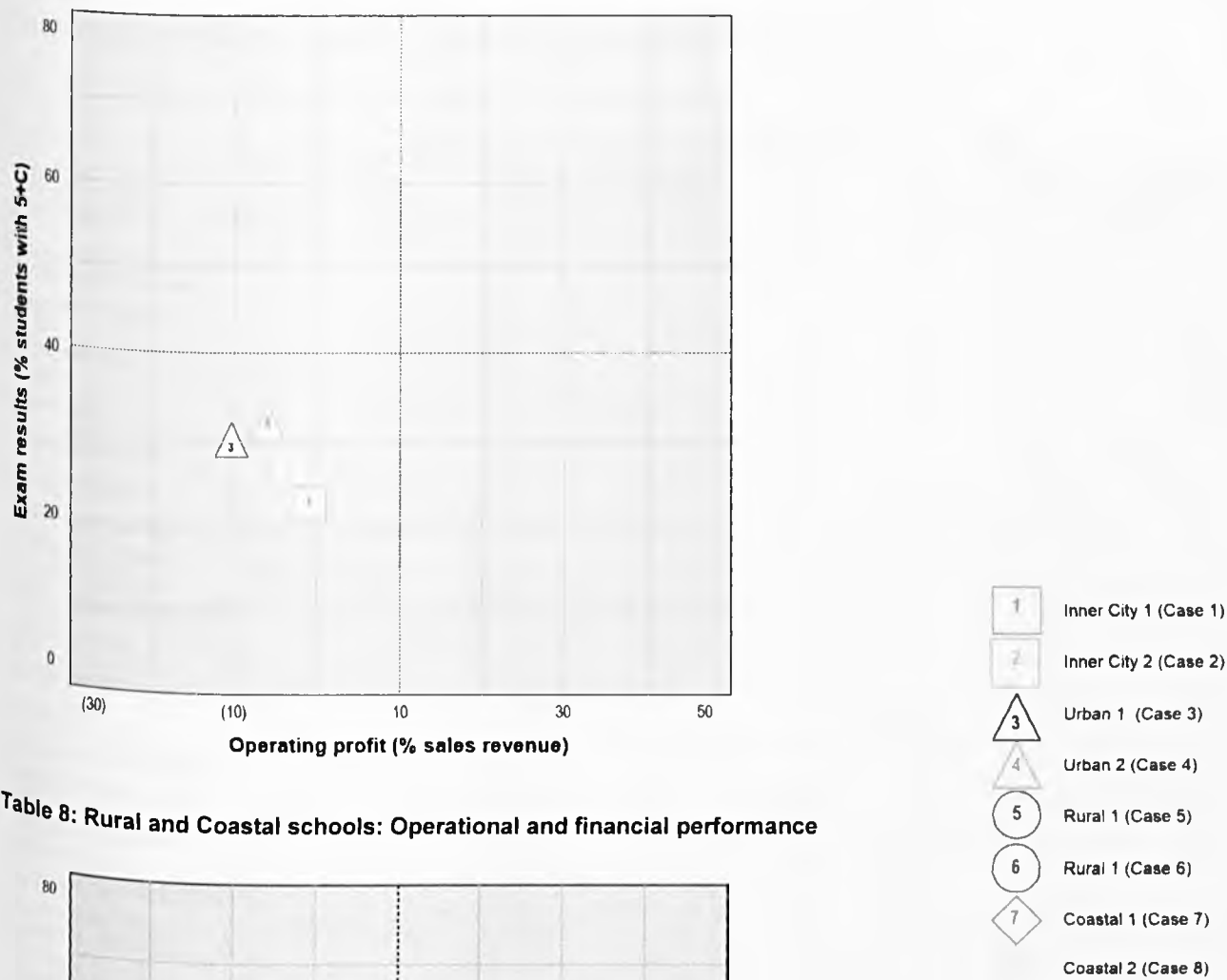
Table 8: Rural and Coastal schools: Operational and financial performance
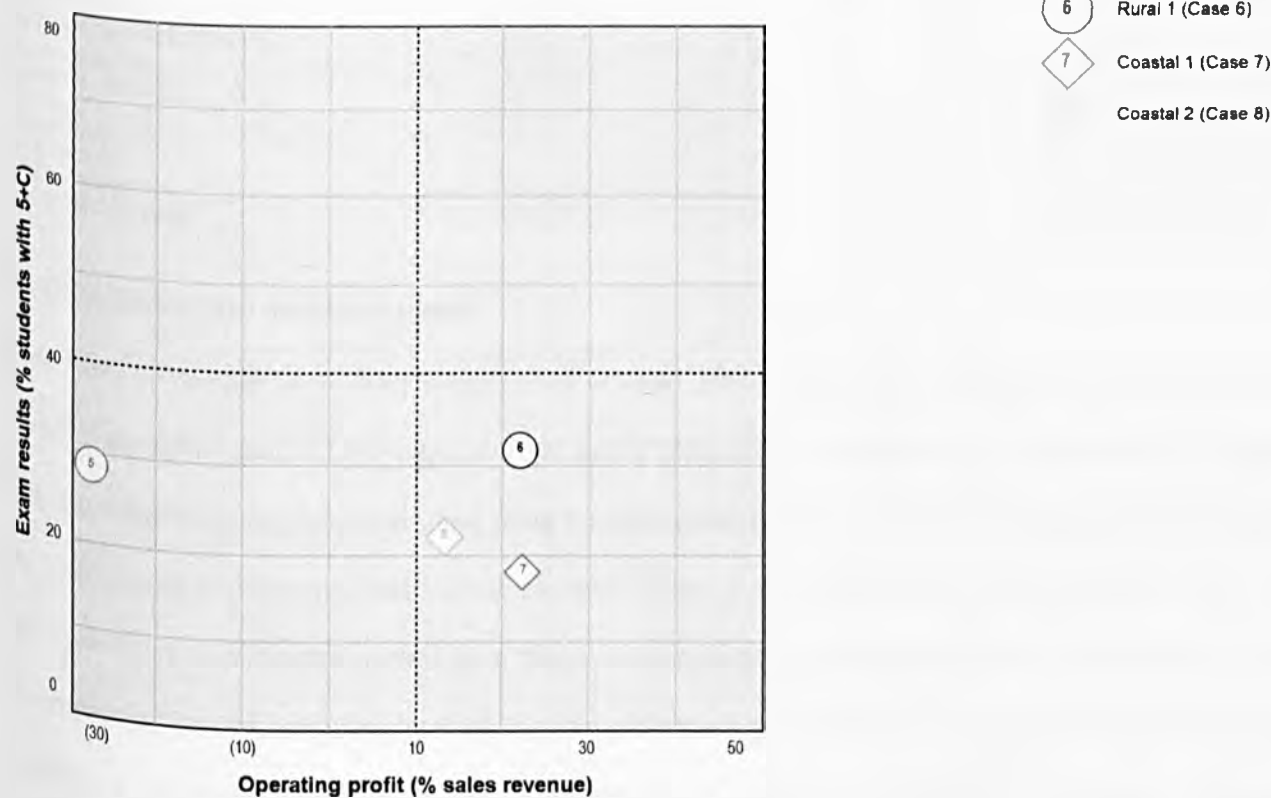
Each school was investigated longitudinally to augment external validity, reduce observer bias and manage causal influence (Voss et al., 2002; Bryman, Bell, 2007). Figure 20 identifies the case characteristics after five years (at the end of the performance journey).

Market, students and performance	Inner city 1 (Case 1)	Inner city 2 (Case 2)	Urban 1 (Case 3)	Urban 2 (Case 4)	Rural 1 (Case 5)	Rural 2 (Case 6)	Coastal 1 (Case 7)	Coastal 2 (Case 8)
	Y5	Y5	Y5	Y5	Y5	Y5	Y5	Y5
Total market served								
Available students (000)	17.2	17.5	17	14.8	4.6	4.3	4.8	6.8
% growth (last 5 years)	13	9	9	12	5	0	-1	-7
Competitors	11	11	8	8	4	5	5	5
Students taught								
Number (000)	0.9	0.8	1	0.7	0.9	0.6	1.1	0.8
Ethnicity (% white)	35	50	17	24	80	89	78	92
Motivation (% living >1 mile away)	53	48	67	51	0	35	0	1.5
Operational performance								
OfSTED (1-4)	-	-	1	1	-	-	3	2
Exam results (%5+ C)	53	56	69	66	58	63	36	50
Financial performance								
Sales revenue (£M)	6.3	5.5	7.3	4.8	5.3	3.6	5.6	4.7
Operating profit (% sales revenue)	17	14	34	16	-5	-7	18	-30
Competitiveness (student)								
Applications (% available capacity)	112	132	150	137	101	79	117	113
Distance (% applications > 1 mile away)	59	56	66	66	3	12	3	14
Market share (% competitor average)	78	67	100	76	95	63	82	75

Figure 20: School case study selection

3.6 Data Collection methods used

Given that a multiple case study design was chosen, this section now looks at the methods used to collect data within each of the case studies being researched. Dutton and Dukerich (1991) suggest that understanding issues is a starting point for data collection, "because some organizational actions are tied to sets of concerns that we call issues." (1991: 519). Issues are events, developments, and trends that an organisation's members collectively recognise as having some consequence to the organisation. "Issues can arise from changes inside the organization, such as employees threatening to stage a strike or a new technology transforming a product or service, or changes originating externally, such as a demographic trend, a regulatory act, or a supply shortage." (1991: 519). The

definition of an issue by a collectively is a "social construction" (Hilgartner & Bosk, 1988). Issue definitions often emerge and evolve over time, and they can be contested (Dutton, 1988a ; El Sawy & Pauchant, 1988). A number of issues arose in completing this research study. The requirements of direct observation (Meredith, 1998) and particularly the constraints of cost, time, and access (Bryman, 1989) were extensive. Whilst these constraints exist for procedures to be replicated, they do ensure research findings are rigorous, robust and generalisable.

The first step was to select a data collection method. Six methods were considered (Gill and Johnson, 1997; Lewis, 1998; Meredith, 1998; Bell, 1999; Voss et al, 2002) and are outlined in figure 21.

Figure 21: Six methods of data collection for case study research: strengths and weaknesses

Source of evidence	Strengths	Weaknesses
Documentation	• Stable – can be reviewed repeatedly • Unobtrusive – not created as a result of the case study • Exact – contains exact names, references, and details of an event • Broad coverage – long span of time, many events, and many settings	• Retrievability – can be low • Biased selectivity, if collection is incomplete • Reporting bias – reflects (unknown) bias of author • Access – may be deliberately blocked
Archival records	• Stable – can be reviewed repeatedly • Unobtrusive – not created as a result of the case study • Exact – contains exact names, references, and details of an event • Broad coverage – long span of time, many events, and many settings • Precise and quantitative	• Retrievability – can be low • Biased selectivity, if collection is incomplete • Reporting bias – reflects (unknown) bias of author • Access – may be deliberately blocked • Accessibility due to privacy reasons
Interviews	• Targeted – focuses directly on case study topic • Insightful – provides perceived causal inferences	• Bias due to poorly constructed questions • Response bias • Inaccuracies due to poor recall • Reflexivity – interviewee gives what interviewer wants to hear
Direct observations	• Reality – covers events in real time • Contextual – covers context of event	• Time-consuming • Selectivity – unless broad coverage • Reflexivity – event may proceed differently because it is being observed • Cost – hours needed by human observers

		Time-consuming
Participant observations	• Reality – covers events in real time • Contextual – covers context of event • Insightful into interpersonal behaviour and motives	• Time-consuming • Selectivity – unless broad coverage • Reflexivity – event may proceed differently because it is being observed • Cost – hours needed by human observers • Bias due to investigator's manipulation of events
Physical artefacts	• Insightful into cultural features • Insightful into technical operations	• Selectivity • Availability

Note: Taken from Yin (1994: 80).

Research designs are often associated with certain data collection methods, while others (for example case studies) typically use two or more approaches as part of the research investigation (Hill, 2004). When completing case study research, it is important to demonstrate a methodological versatility, which is not necessarily required when using other strategies. Consequently, research should follow certain formal procedures to ensure quality control during the data collection process (Yin, 1994:100). Such design "allows the researcher to concentrate on a specific instance or situation and to identify, or attempt to identify, the various interactive processes at work." (Bell, 1999: 10). There are a number of data collection methods that are suitable (Gill and Johnson, 1997; Lewis, 1998; Meredith, 1998; Bell, 1999; Voss et al, 2002) for theory building research:

- Self-administered questionnaires – this method requires participants to complete a collection of questions individually and without the opportunity to discuss or clarify any aspects embodied in the questionnaire.

- Unstructured interviews – this method requires participants to complete interviews in an informal style with considerable latitude in the aspects addressed in the discussion. It is uncommon to prepare a set of questions or aspects to be systematically discussed during an interview.

- Structured interviews – this method requires participants to complete interviews which follow a set of questions or aspects that are systematically discussed.

- Observation – this method requires the researcher to observe relevant activities within an organisation in either a structured or unstructured format.

67

- Archival information analysis – this method requires the researcher to complete systematic analysis of existing materials. "Typically, this constitutes prime data that are records of transactions and activities together with contemporary and historical controls and measures of performance per se or derived from source data." (Hill, 2004).

The next step was to discuss these methods with the steering group, so as to understand which methods should be adopted to best answer both research questions. This process started with a field visit to assess the preliminary information of each school, verify access procedures, review background documents, agree confidentiality, and determine the sources of data to be reviewed (executives to be interviewed, observations to be made, documents and archival records to be analysed). In collaboration with the steering group, four research methods were adopted which contained structured and unstructured characteristics. Triangulation of methods increased validity of the theory being developed (Voss et al., 2002: 196). Triangulation is common within case study research (Eisenhardt, 1989), and provided an opportunity to collect data in a systematic way.

1. Site visits: research was conducted through site visits, involving academic observation and the collection of multiple viewpoints.
2. Archival information analysis: appropriate, relevant archival records were reviewed.
3. Interviews: identified executives from a range of hierarchical levels were interviewed face-to-face and on-site. Interviews occurred in both a structured and unstructured manner to probe and understand new dimensions (Mintzberg, 1973; and Yin, 1994).
4. Observation: interviews provided various observation opportunities, in both a structured and unstructured manner.

Interviews were used prominently, being "a technique which relies on the researcher interacting and engaging with respondents." (Hill, 2004: 12). This method is justified by literature, including Eisenhardt (1989), Johnson and Clark (2001) and Tashakkori and Teddlie (1998). Interviews were completed using a standardised interview format. This approach was strengthened by the experience and practical considerations of the research team, who made observations using empiricism. Such an

approach relies upon interpretation of opinions through axiology and requires the measurement of opinions using values, whilst "adopting both objective and subjective points of view." (Saunders et al. 2009: 141). Heron and Reason (1997) comment that "researchers demonstrate axiological skill by articulating values as a basis for making judgements about the research they are conducting." (1997: 116). However, this approach increases the potential of observer bias. Experiences may inadvertently include "unconscious assumptions which take the form of ethnocentrism." (Lewis-Beck, 2004: 2). This research recognises observer bias and took four steps to limit this.

The first step was to present findings back to each school to ensure data and evidence had been collected correctly. Then, the findings were presented to an academic and practitioner advisory board to help minimise bias and ensure data and evidence had been correctly interpreted. The next step was to complete a summative presentation for the school. This provided an opportunity to look at the data collected to confirm investments made (what, when and how) and performance impact (what, when and how). Following this presentation, the key findings were written into a report and sent to the government (DfE) on behalf of the advisory board.

3.7 Analysis within-case data

The importance of within-case analysis is driven by the volume of data within case study research (Eisenhardt, 1989) and the ever-present danger of 'death by data asphyxiation' (Pettigrew, 1988). Central to analysing within-case data is typically a detailed case study write-up, which is often simply a pure description but one vital to the generation of insight (Pettigrew, 1990 and Gersick, 1988). This is then combined with other analyses such as prepared transcripts of team meetings (Gerswick, 1988), tabular displays and graphs of information (Leonard-Barton, 1990), and sequence analysis to organise longitudinal data (Abbott, 1988). As Eisenhardt (1989: 540) concludes "there are probably as many approaches as researchers. However, the overall idea is to become intimately familiar with each case as a stand-alone entity. This process allows the unique patterns of each case to emerge before investigators push to generalise patterns across cases. In addition, it gives investigators a rich familiarity with each case which, in turn, accelerates cross-case comparison."

Within this research, cross-case analysis commenced after within-case analyses had been completed, checked for accuracy and presented back to case study participants. The advisory board then helped to ensure findings had been interpreted correctly. The processed used multiple methods of analysis, as no singular source has the advantage over another (Yin, 1994). This included:

1. **Detailed case study write-up** – completed for each of the eight cases. The format of this write-up was the same for each case and is shown in figure 22.

2. **Tabular display of data** – as well as the write-up, multiple tables were used to display the data for each case as shown in figures 24 to 31. These tables organised and categorised the data from the case study write-up. The resulting analyses are shown in appendices 1 - 8.

3. **Analysis of data in tabular display** – each of the tables were then analysed to show significant increases and decreases of data. Data was coloured green to identify significant increases, and red to identify significant decreases. This analysis is used within in figure 35.

Figure 22: Format used for detailed case study write-up

CONTENTS

1. Executive summary

2. Introduction

3. School background

    A. Ten year history
    B. Organisational structure
    C. Management activities

4. Importance of different competitive criteria

    A. Market research
    B. Parental surveys
    C. Student surveys
    D. Executives' opinion of customer demands
    E. Summary and conclusions

5. Investment

    A. What are the important elements of the strategy within each function?
    B. Where are investments made?
    C. How is performance (operational and financial) measured?
    D. How are teachers and support staff incentivised, rewarded and developed?
    E. Summary and conclusions

6. Service delivery system

    A. What are the key steps in the service delivery system?
    B. What is the role of people, technology, equipment, layout and procedures?
    C. How are capacity and demand managed?
    D. How are quality standards ensured?
    E. How is the service differentiated from the competition?
    F. Primary and sixth form provision (where applicable)
    G. Summary and conclusions

7. Performance

    A. OfSTED
    B. Exam Results
    C. Revenue
    E. Costs
    F. Operating Profit
    G. Students
    H. Teachers
    I. Support staff
    J. National trends and local trends
    K. Competitor analysis (within one, three and five mile radius)

8. Conclusions and recommendations

Undertaking the data analysis was challenging. This is because the amount of data collected was substantial. Each case study involved 12 to 48 visits, interviews with 24 to 51 executives, 124 to 219 direct observations, analysis of 42 to 127 documents and analysis of 81 to 351 archival records. This meant the constraints of cost and time were extensive. The importance of cross-case analysis is driven by the volume of data within case study research (Eisenhardt, 1989) and the ever-present danger of 'death by data asphyxiation' (Pettigrew, 1988)(Nisbett and Ross (1980). The advisory board helped to decide which data was important to analyse and proposed multiple methods to support a cross-case analysis, which "challenges existing theory and provides a source of new research" (Saunders, Lewis and Thornhill: 147). They suggested three different tactics to deal with these issues:

1. Select categories or dimensions, and then look for within-group similarities coupled with intergroup differences. Dimensions can be suggested by the research problem or by existing literature, or the researcher can simply choose some dimensions.

2. Select pairs of cases and then list the similarities and differences between each pair.

3. Divide the data by source.

"Overall, the idea behind these cross-case searching tactics is to force investigators to go beyond initial impressions, especially through the use of structured and diverse lenses on the data. These tactics improve the likelihood of accurate and reliable theory, that is, a theory with a close fit with the data" Eisenhardt (1989: 541). Miles and Huberman (1984) added to this by suggesting various analytical techniques to use when analysing the data:

- Putting information into different arrays in chronological order;

- Making a matrix of categories and placing the evidence within such categories;

- Creating data displays – flowcharts and other devices – for examining the data;

- Tabulating the frequency of different events;

- Examining the complexity of such tabulations and their relationships by calculating second-order numbers such as means and variances.

3.8 Ensuring validity, generalisability and reliability

This section addresses concerns of validity and reliability. The case study methodology is a distinctive form of empirical inquiry. However, concerns are raised within literature regarding a lack of rigour, particularly when the "case study investigator has been sloppy and has allowed equivocal evidence or biased views to influence the direction of the findings and conclusions" (Yin, 1994: 9). Consequently, this thesis has adopted tactics which promote consistency and visibility through data collection and analysis, to ensure rigorous, valid and reliable conclusions. Figure 23 summarises the tactics employed to ensure rigour and quality in the empirical research (Kidder and Judd, 1986: 26-29), and how they have been implemented within this research.

Figure 23: Case study tactics for four design tests and the phase of the research in which they occur

Tests	Case study tactic	Phase of research in which tactic occurs
Construct validity	Use multiple sources of evidence	Data collection
	Establish chain of evidence	Data collection
	Have key informants review draft case study report	Composition
Internal validity	Do pattern-matching	Data analysis
	Do explanation-building	Data analysis
	Do time-series analysis	Data analysis
External validity (or generalisability)	Use replication logic in multiple-case studies	Research design
Reliability	Use case study protocol	Data collection
	Develop case study database	Data collection

Note: Based on Yin (1994: 33).

3.8.1 Validity

Construct validity concerns establishing the correct operational measures for the concepts being studied. Yin (1994: 34) suggests research should select the specific types of changes that are to be studied (in relation to the original objective of the study) and demonstrate that the selected measures of these changes do indeed reflect the specific types of change that have been selected. Yin (1994:

34) notes that this test "is especially problematic in case study research. People who have been critical of case studies often suggest a case study investigator fails to develop a sufficiently operational set of measures and that "subjective" judgements are used to collect the data." To overcome this, the three different tactics outlined below were employed in the research.

1. Use of multiple sources of evidence: the case study design incorporates multiple sources of evidence. The author initially worked as an operations executive within selected firms so has prior market knowledge, an understanding of organisation context and a robust relationship with senior executives. By this means, qualitative and qualitative data will be collected in a systematic way. This includes four main methods: site visits, archival information analysis, interviews and observation. Each case study involved 12 to 48 visits, interviews with 24 to 51 executives, 124 to 219 direct observations, analysis of 42 to 127 documents and analysis of 81 to 351 archival records.

2. Establishing a chain of evidence: a chain of evidence was established that allows an external observer "to follow the derivation of any evidence from the initial research questions to ultimate case study conclusions" (Yin, 1994: 98). Participants from different hierarchies were interviewed with regard to the key measures, and documentation was obtained to support the semi-structured interviews. Documents, interviews and observations were categorised and sorted into sections for each research question, with a folder for each case study. Case reports were developed from this data. Within these, the analysis clearly shows the source of evidence upon which the findings and conclusions were made. Findings from these data sources were systematically triangulated together. Inconsistencies led to further interviews to clarify insights and findings. A detailed write-up was then completed for each case using a replica format, which allowed easy comparison and review of market conditions, performance and investment characteristics.

3. Having key informants review the draft case study report: Key informants reviewed the full transcripts and the intra-case reports to check for accuracy and the derived analysis. Finally, there was a review process before completing the final version of each case study write-up. This involved presentation and discussion of the findings and conclusions to fellow academics and participants and informants in the case. Within each presentation, participants had an opportunity to validate findings and ensure critical points had been captured and that the conclusions reached were meaningful and relevant. An advisory board was then formed to share findings, in more depth, with ten leading educationalists. Board members had an opportunity to compare findings with their own experience and instincts and recommend next steps, including how the findings could be used to influence educational policy and improve the performance of other schools. This process ensured findings were verified before publication, therefore reducing observer bias and increasing validity.

Internal validity concerns establishing a causal relationship between measures during the data analysis stage. Tactics are considered within explanatory or causal case studies, due to the theory testing nature of research. Tactics are not considered within descriptive or exploratory case studies, due to the theory building nature of research. This research is categorised by the latter; the purpose of which is to conduct exploratory research into the field of service operations strategy and, therefore, 'internal validity' tactics are less relevant. Yin (1994) concludes "internal validity is only a concern for causal (or explanatory) case studies, in which the investigator is trying to determine whether event *x* led to *event y"* (Yin, 1994: 35).

3.8.2 Generalisability

External validity (or Generalisability) concerns establishing the extent to which the case study's findings can be generalised. Unlike survey research that relies upon statistical generalisation, case study research relies on analytical generalisation. This means that case studies aim to generalise to theory instead of the wider population and, therefore, the concerns for quantitative external validity do not apply. Critics of the case study methodology often claim that the findings from the research

are not generalisable, as there is little basis for scientific generalisation; generalisation is not always possible from a study of single events. However, as Yin (1994: 36) notes, "such critics are implicitly contrasting the situation to survey research, in which a "sample" (if selected correctly) readily generalises to a larger universe. This analogy to samples and universes is incorrect when dealing with case studies. This is because survey research relies on statistical generalisation, whereas case studies (as with experiments) rely on analytical generalisation. In analytical generalisation, the investigator is striving to generalise a particular set of results to some broader theory." As Lipset et al. (1956: 419) describe in their case study research, the goal is to do a "generalising" and not a "particularising" analysis. Bassey (1981: 86) agrees, commenting if case studies "are carried out systematically and critically, if they are aimed at the improvement of an organisation, if they are relatable, and if by publication of the findings they extend the boundaries of existing knowledge, then they are valid forms of organisational research". Consequently, this research uses replication logic to select the case studies investigated.

Eight academy schools were studied to understand how organisations offering a similar service in markets with different needs, opportunities and levels of competition can impact performance using different types of investments. Schools were selected as examples of service organisations because they provide a similar service to each other and are measured using nationally regulated performance metrics, but they operate in different ways (using different leaders, structures, processes and systems) in different markets (varying size and student type) with different access to resources (varying access to staff, students and money) and levels of competition (number, type and concentration of competitors). Each school was put into 'special measures' by OfSTED five years ago, meaning they were required to improve business performance or face closure. Since then, the schools have all made different investments to improve leadership, structures, processes and systems which have had different impacts on performance. As a result, the research was able to isolate key investments using a case study methodology, and understand the impact of different investments on operational, financial and competitiveness performance over time.

3.8.3 Reliability

Reliability concerns the success of a repeated study; the extent to which the same procedures can be replicated with the same results. Here, the objective is "to be sure that, if a later investigator followed exactly the same procedures as described by an earlier investigator and conducted the same case study all over again, the later investigator should arrive at the same findings and conclusions (note that the emphasis is on doing the same case over again, not on "replicating" the results of doing one case by doing another case study). The goal of reliability is to minimise the errors and biases in a study" (Yin, 1994: 36). As a result this research utilises a case study design which incorporates a protocol and database. The database consists of the original interview transcripts, relevant documents, notes and narratives written during the course of the research. The protocol incorporates an overview of the project, field procedures, questions and a guide for analysis (Yin, 1994) and would help another researcher replicate the initial study and subsequent analysis. This allows the 'how,why and what; questions to be answered and richer insights and explanations to be developed (Eisenhardt, 1989). The protocol includes the source materials from which the report and analysis is derived. Each protocol demonstrates links with findings, interview questions, collected data and original research purpose, therefore establishing reliability. In doing so, it outlines the instruments used for data collection and the procedures and general rules followed in using the instruments. These include:

* An overview of the case study project – project objectives and auspices, case study issues, and relevant readings about the topics being investigated.

* Field procedures – credentials and access to the case study site, general sources of information, and procedural reminders.

* Case study questions – the specific questions that the investigator must keep in mind in collecting data, "Table shells" for specific arrays of data, and potential sources of information for answering each question.

* A guide to the case study report – outline, format for the narrative, and specification of any bibliographical information and any other documentation".

On completion, the protocol was reviewed by the advisory board to help minimise bias and ensure data and evidence had been correctly interpreted. Then, the protocol was presented to a panel of academics and practitioners. This process helped to ensure the research had made consistent interpretations of the data, and had compared findings across cases to develop theory. In doing so, academics and practitioners were provided with an opportunity to review and critically assess the thesis and judge the ability of a repeated replication study (Pettigrew, 1990; Gersick, 1988). To ensure the success of a repeated study, findings from the interviews and analysis of other data sources were written up into a 31 to 42 page report, which was presented back to the participating organisation to help increase the validity of the findings. A cross-case analysis was then completed to identify the different types and sequence of investments made and their performance impact over time. The data within each case study was then revisited to help test and explain the significant relationships identified. This iterative analysis continued until theoretical saturation was reached and new evidence ceased to appear. Whilst constraints of cost, time and access exist for procedures that can be replicated, they do ensure research findings are rigorous, robust and generalisable.

3.9 Summary and conclusions

This section summarises the key points of the chapter and establishes the purpose of the research, the questions that it aims to answer and the philosophical position adopted. The thesis follows an inductive approach and adopts empiricism to build theory. The decision was made to use a multiple case study design for three specific reasons. Firstly, the research questions are "how and why as opposed to who, what, where, how many and how much" (Yin, 1994: 6), which means a case study, experiment or history design is appropriate. Secondly, the research focuses on "contemporary events and does not require control over the behavioural proceedings being investigated" (Yin, 1994: 6), which means that neither a history nor experiment design are appropriate. Thirdly, the purpose of the research is to build theory in terms of "identifying key variables, identifying linkages between these variables and identifying 'why' these relationships exist" (Voss et al., 2002: 198), which means a case study is appropriate.

Data was collected using a variety of methods including site visits, documentation, archival information analysis, observation and structured and unstructured interviews. Perceptual triangulation was used to establish validity and reliability and to support data collection (Maxwell, 2013). This method allows 'the questions of what, why and how, to be answered with a relatively full understanding of the nature and complexity of the phenomenon being studied." (Benbasat et al., 1987: 22). Within this design, replication logic rather than sampling logic was used to select each of the case studies, so that they either predicted similar results to each other (literal replication) or produced contrary results - but for predictable reasons (theoretical replication). The research followed an established case study method for data collection and analysis (Eisenhardt, 1989). The case study protocol adopted by this research is available on request, and is primarily concerned with promoting consistency and visibility through data collection and analysis. Research within each case study started with a two-day field visit to review preliminary information, verify access procedures, review background documents, agree confidentiality, and determine the sources of data to be reviewed (executives to be interviewed, observations to be made, documents and archival records to be analysed). At this point, access to management information systems was provided in order to remotely access and track changes in investment and performance. All subsequent interviews were then conducted face-to-face at the schools' facilities, which enabled the research to identify further people to interview and archival records, documents and reports to be reviewed. Findings were then analysed using a cross-case analysis, which "challenges existing theory and provides a source of new research" (Saunders, Lewis and Thornhill: 147). The cross-case analysis demonstrates "varying levels of characteristics [of firms] in terms of the markets they serve, their size and structure, the style of management, the types of employees, the operating strategies and service delivery systems used." (Hill and Brown, 2007: 12). The cross-case analysis demonstrated links with findings, interview questions, collected data and the original research purpose, therefore establishing reliability.

4. Findings

4.1 Introduction to Chapter

The findings presented in this chapter have significant implications for service organisations trying to improve operational, financial and competitiveness performance. They suggest that organisations should make investments in the right order (to create the maximum impact with each investment), should realise investment impact will vary (depending on access to resources and previous investments/changes that have been made), should manage the resource pipeline early in the journey (to increase revenue and create an opportunity for reducing costs and increasing resource quality), should invest more resources (in areas with lower access to resources) and should plan for a dip in financial performance, before operational performance can improve. As a result, the findings presented here can begin to help service organisations better understand how and where to make investments, given their performance objectives and the nature of the market they serve. These findings are now explored in this chapter, which is structured into seven main sections:

1. **Case descriptions** - the first section provides a description of each school study. These descriptions concern three areas: (1) organisation background; (2) key leadership, structure, process and systems investments over five years; and (3) impact on operational, financial and competitiveness performance. To improve validity, descriptions were reviewed for accuracy by senior managers of each organisation.

2. **Cross-case comparison** – then, a comparison of the different types and sequence of investments is made, which, in so doing, identifies how investments impacted the market served, students taught and performance.

3. **Investments made in each school** – next, significant points that emerge from cross-case analyses are discussed, which explore why resultant changes in the market served, students taught and performance, five years after academisation (Y6 to Y10), were different for each school.

4. **Market nature affects performance impact** – the chapter then identifies factors which affected how quickly and how much performance improved after investments were made.

5. **Summary and conclusions** - finally, key points from the chapter section are identified and summarised.

4.2 Case descriptions

Each school description begins with an organisation background which explains why the academisation process occurred. Then, key leadership, structure, process and systems investments made over five years are highlighted. This information is presented in figures 24 – 31, which use six variables to show the resultant impact on operational, financial and competitiveness performance.

Operational performance variables

1. OfSTED grading - the assessment grade awarded by OfSTED inspectors during their last visit.

2. Exam results (% 5+C) - the percentage of students graduating in Year 11 with five or more Grade A*-C (Including English and Maths) GCSEs.

Financial performance variables

3. Revenue (£M) - the annual earnings from teaching (government funding) and non-teaching offerings.

4. Profit (% sales) - the annual profit generated as a percentage of revenue.

Competitiveness performance variables

5. % capacity - the total class capacity.

6. % outside 1 mile - the percentage of the students taught who live more than 1 mile away.

By using these six variables, the school descriptions begin to isolate key leadership, structure, process and systems investments, and highlight the relationships between these investments and operational, financial and competitiveness performance. Section 4.3 then examines these relationships in greater detail by looking at a broader range of measures. In doing so, a cross-case analysis is developed, which shows how each investment impacts performance over time in markets with different stability and levels of competition.

Inner City 1 is a 'good' academy located in an inner city area of South East England. Five years ago. business performance was considerably lower. In July 2009, 24% of its students achieved 5+ A*- C grades. An inspection followed and Leadership and Management were graded 'unsatisfactory' (4). As a result, the school was placed into 'special measures' (4) and closed. It reopened as an academy and started to make a number of investments to improve performance.

Figure 24: Inner City 1 investments and performance impact over the last 5 years

Year	Investments	Performance impact (change from previous year)					
		Operational		Financial		Competitiveness (applications)	
		OfSTED grading	Exam results (% 5+C)	Revenue (£M)	Profit (% sales)	% capacity	% outside 1mile
Y1	1. **Changed governing board** - appointed members on experience/capability and increased operational/financial performance focus (no community reps or parents) 2. **Changed leadership** - new principal with strong behaviour focus 3. **Rebranded** - using marketing and media consultants 4. **Improved admissions process** - reduced lead-time and enabled on-line applications 5. **Introduced middle management** - non-teaching to manage parents 6. **Stabilised teaching process** - by improving student behaviour and excluding 164 students 7. **Improved teaching process** - increased teaching workload for senior leaders 8. **Reduced service offering** - reduced 50% of subjects taught to focus on Maths and English	N/A	27 (+3)	4.3 (-1.6)	18 (+18)	94 (+2)	13 (+13)
Y2	9. **Further increased middle management** - by 50% to manage parents 10. **Increased leadership focus** - reduced senior leaders teaching workload (from 50% to 10%) 11. **Further stabilised teaching process** - by introducing an online system to record incidents and excluding 145 more students 12. **Further improved teaching process** - increased teaching observations, expectations and introduced 'capability' system	2 (+2)	36 (+9)	4.1 (-0.2)	18 -	100 (+6)	12 (-1)
Y3	13. **Further stabilised teaching process** - introduced 'get ready for learning' and excluded 104 more students 14. **Introduced performance measurement system** - standard measures introduced and real-time performance displayed 15. **Introduced employee development system** - teamwork and middle management development programmes	2 -	41 (+5)	4.9 (+0.8)	22 (+4)	102 -	15 (+3)
Y4	16. **New building** - increased student capacity and improved facilities 17. **Expanded service offering** - set up primary (sixth form set up in 07-08) 18. **Centralised back office** - across primary, secondary and sixth form to increase standardisation and reduce costs 19. **Further stabilised teaching process** - excluded 98 more students						

Year	Investments	Performance impact (change from previous year)					
		Operational		Financial		Competitiveness (applications)	
		OfSTED grading	Exam results (% 5+C)	Revenue (£M)	Profit (% sales)	% capacity	% outside 1mile
	20. **Introduced employee development system** - 360 feedback, mentoring and leadership development programme	N/A	48 (+7)	5.5 (+0.6)	22 (-)	109 (+7)	52 (+47)
Y5	21. **Further stabilised teaching process** - by excluding 91 more students						
	22. **Introduced quality management system** - trained staff in improvement tools and techniques	N/A	53 (+5)	6.2 (+0.7)	17 (-4)	112 (+3)	61 (+9)

Year 1:

The first step was to appoint a new governing board. Members were selected based on their previous experience of improving organisational performance. The board then appointed a new Principal to lead the academy. The Principal immediately hired a PR team to build a new public profile, which included rebranding. Time was spent revising the customer journey to reduce turnaround time of admission procedures. Each functional-based team consolidated and standardised the administration processes they managed. Processes were mapped to identify which were critical, which added value and which could be eliminated. An IT system was then implemented to automate remaining admission procedures. This led to an online application portal, which increased 'delivery system automation' as parents were able to apply for places online. As a result, the level of paperwork and manpower used in admission processes was significantly reduced, which further reduced costs. An Admissions Officer was then appointed to improve student quality and reduce application lead-time. The reduced lead-time meant the academy could make offers faster than its competition. Performance started to improve, and exam results increased to 27%. However, revenue decreased to £4.2M due to increased non-teaching costs associated with the site. Next, the range of taught subjects was significantly narrowed to build teaching capacity. Many students were unhappy that the range of taught subjects was narrowed to increase Maths and English provision, and became extremely disruptive.

Year 2:

Management then enforced revised behaviour management systems as a way of increasing 'customer behaviour' requirements. The number of incidents increased to 1,345. Consequently

exclusions increased; 159 students received fixed term exclusions and 9 students received permanent exclusions. Improved behaviour provided teachers with an opportunity to increase teaching quality. 'Good' lessons increased by 10% to 52%, and 'requires improvement' lessons decreased by 11% to 36%. The Principal then introduced a code of conduct for staff, linked to the capability system for managing poor performance. 22 teachers and 37 support staff were managed out, which significantly increased costs.

Year 3:

The next step was to use structures to focus management attention (management structures) and determine where future resources were located (level of centralisation). The Principal spent time changing the management and organisational structure to ensure it was secure, before improving processes. This included centralising back office activities and increasing a tier of middle managers by 50%. Performance increased as a result, and exam grades improved to 36%. Performance continued to improve and, in July 2011, OfSTED returned and graded the academy 'Good' (2). The Principal then held discussions with the leadership team regarding ways to increase performance further and decided to build a new site to further control the 'pipeline' of quality being admitted, which opened in September 2012.

Year 4:

The new building meant managers could begin managing demand; they rejected 82 applications from within 1 mile. By controlling the 'pipeline' of quality, exam results increased to 48%. The service offering was then expanded to create an 'all-through academy' from 0 to 16 years. Primary students were admitted which increased sales revenue from £4.8M to £5.5M and created funds to make future changes. An Admissions Officer was then appointed to improve student quality in the Primary School and reduce application lead-time within the Secondary School.

Year 5:

Next, the Principal appointed two Assistant Vice Principals to improve the teaching process and the management and development systems used. This improved behaviour and provided teachers with

further opportunities to improve teaching quality. Performance increased as a result, and exam grades improved to 53% whilst revenue increased to £6.1M.

4.2.2 Inner City 2 – Case 2

Inner City 2 is a 'good' academy located in an inner city area of North West England. Five years ago, its business performance was considerably lower. In July 2008, 26% of students achieved 5+ A*- C. An inspection followed and Leadership and Management were graded 'unsatisfactory' (4). A sponsoring business then approached the school to convert it to academy status. The governing body, in liaison with the Local Authority, accepted and decided to increase governance to manage the takeover process by recruiting new board members. The board increased from 10 to 20 members, and comprised of 40% community members, 40% parents and 20% staff. The larger board experienced deadlocked meetings, which reduced decision making. Six months later OfSTED completed an inspection and identified dysfunctional leadership and management, caused by ineffectual governance. A lack of effective decision making led to inadequate appointments of staff, including two teachers without Criminal Records Bureau checks (CRBs). As a result, OfSTED graded the school 'inadequate' (4); it subsequently closed and reopened as an academy and started to make a number of investments to improve performance.

Figure 25: Inner City 2 investments and performance impact over the last 5 years

Year	Investments	Performance impact (change from previous year)					
		Operational		Financial		Competitiveness (applications)	
		OfSTED grading	Exam results (% 5+C)	Revenue (£M)	Profit (% sales)	% capacity	% outside 1mile
Y1	1. Changed governing board - appointed members on experience/capability and increased operational/financial performance focus (no community reps or parents)						
	2. Changed leadership - new principal with strong behaviour focus						
	3. Reduced service offering - reduced 50% of subjects taught to focus on Maths and English						
	4. Improved admissions process - reduced lead-time and enabled on-line applications						
	5. Introduced middle management - non-teaching tier expanded by 40% to manage parents						
	6. Stabilised teaching process - by improving student behaviour and excluding 146 students						
	7. Improved teaching process - increased teaching workload for senior leaders						

Year	Investments	Operational		Financial		Competitiveness (applications)	
		OfSTED grading	Exam results (% 5+C)	Revenue (£M)	Profit (% sales)	% capacity	% outside 1mile
	8. Rebranded - using marketing and media consultants	4 (-1)	30 (-4)	4.4 (-0.1)	(9) (-9)	100 (-)	7 (+6)
Y2	9. New building - increased student capacity and improved facilities						
	10. Expanded service offering - set up sixth form						
	11. Further stabilised teaching process - by excluding more students						
	12. Introduced performance measurement system - standard measures introduced and real-time performance displayed						
	13. Further improved teaching process - increased teaching observations, expectations and introduced 'get ready for learning' to reduce class disruption	N/A	39 (+9)	3.0 (-1.4)	(36) (-27)	69 (-31)	13 (+5)
Y3	14. Further stabilised teaching process – revised 'get ready for learning' and excluded more students						
	15. Introduced performance measurement system - standard measures introduced and real-time performance displayed						
	16. Introduced employee development system - teamwork and middle management development programmes	3 (+1)	44 (+5)	4.7 (1.7)	9 (+45)	68 (-1)	19 (+6)
Y4	17. Further increased middle management - by 50% to manage parents						
	18. Management - created functional teams to manage secondary and sixth form processes						
	19. Centralised back office - across secondary and sixth form to increase standardisation and reduce costs						
	20. Expanded service offering - integrated sixth form into existing product and service range						
	21. Introduced employee development system - 360 feedback, mentoring and leadership development programme	2 (+1)	48 (+4)	5.0 (+0.3)	7 (-2)	70 (+2)	53 (+34)
Y5	22. Media consultants – exam results were the most improved in the city.						
	23. Introduced quality management system - trained staff in improvement tools and techniques	N/A	56 (+8)	5.5 (+0.5)	14 (+7)	72 (+2)	56 (+3)

Year 1:

The first step was to appoint a new governing body. Members were selected on their previous experience of improving organisational performance. The board then appointed a new Principal who hired a PR team to build a new public profile, which included rebranding. Senior managers spent time revising the customer journey to reduce turnaround time of admission procedures. Each functional-based team consolidated and standardised the administration processes they managed. Processes were mapped to identify which were critical, which added value and which could be eliminated. An IT system was then implemented to automate remaining admission procedures. This led to a standardised, automated online application portal, which increased 'delivery system automation' as parents were able to apply for places online. As a result, the level of paperwork and manpower used

in admission processes was significantly reduced, which further reduced costs. The range of taught subjects was significantly narrowed to build English teaching capacity. Many students were unhappy about this and became disruptive. Management enforced revised behaviour management systems as a way of increasing 'customer behaviour' requirements. 146 students received fixed term exclusions and four students received permanent exclusions. Many parents were unhappy with the significant increase of exclusions and withdrew their children from the academy. Return on sales decreased significantly. To the surprise of employees, senior management were not concerned. To create high-performance they believed that the customer profile required change.

Year 2:

The next step was to use structures to focus management attention (management structures) and determine where future resources were located (level of centralisation). The Principal spent time changing the management and organisational structure to ensure it was secure, before improving processes. This included centralising back office activities and increasing a tier of middle managers by 40%. Performance increased as a result, and exam grades improved to 39%.

Year 3:

Once structures were secure, three Vice Principals were appointed to stabilise and improve the teaching process, and the management and development systems used. This included 1) allocating the best staff to teach students arriving into Year 11 without 5+ C grades, and the worst staff to teach students who already had 5+C; 2) introducing 'get ready for learning' techniques to reduce class disruption; and 3) increasing teaching expectations by revising the 'capability' system for managing poor performance. Management consultants were used to support these improvements. Stricter rules followed which included a zero tolerance behaviour policy. This improved behaviour immediately and provided teachers with an opportunity to improve teaching quality.

Year 4:

The next step was to expand the existing service offering. A sixth form centre (16-19) was opened and A-Level teachers recruited. The academy now provided 11-19 provision (Secondary Phase and a sixth form centre). This service development differentiated the academy from its competitors and created significant 'competitor barriers to entry' as the capability of its delivery system was difficult to imitate. Performance continued to improve and, in July 2013, OfSTED returned and graded the academy 'good'.

Year 5:

Next, a quality management system was introduced and all staff were trained in improvement tools and techniques. This developed motivation for future improvement.

4.2.3 Urban 1 – Case 3

Urban 1 is an 'outstanding' academy located in an urban area of South East England. Five years ago, its business performance was considerably lower. In July 2008, 21% of students achieved 5+ A*- C grades. An inspection followed and Leadership and Management were graded 'unsatisfactory' (4). As a result, it was placed into 'special measures' (4) and closed. It then reopened as an academy and started to make a number of investments to improve performance.

Figure 26: Urban 1 investments and performance impact over the last 5 years

Year Investments	Performance Impact (change from previous year)					
	Operational		Financial		Competitiveness (applications)	
	OfSTED grading	Exam results (% 5+C)	Revenue (£M)	Profit (% sales)	% capacity	% outside 1 mile
Y1 1. Changed governing board - appointed members on experience/capability and created operational/financial performance focus (no community reps or parents) 2. Changed leadership - new principal focused on leadership, performance and process (Future Leaders graduate) 3. Rebranded - using marketing and media consultants 4. Improved admissions process - reduced lead-time and enabled on-line applications 5. Expanded service offering - acquired primary school 6. New building - increased student capacity and improved front and back office facilities						

| Year | Investments | Performance impact (change from previous year) | | | | | |
| | | Operational | | Financial | | Competitiveness (applications) | |
		OfSTED grading	Exam results (% 5+C)	Revenue (£M)	Profit (% sales)	% capacity	% outside 1 mile
	7. **Stabilised teaching process** - improved student behaviour and reduced students per teacher in Year 10 (already low in Year 11)						
	8. **Reduced service offering** - reduced subjects taught (increased Maths and English focus)	N/A	26 (-5)	6.7 (+4.0)	47 (+57)	96 (-1)	8 (+6)
Y2	9. **Centralised back office** - standardised activities and reduced costs						
	10. **Stabilised teaching process** - improved student behaviour						
	11. **Improved teaching process** - increased targets and introduced 'capability' system	3 (+1)	46 (+20)	5.8 (-0.9)	37 (-10)	97 (+1)	24 (+16)
Y3	12. **Stabilised teaching processes** - introduced 'get ready for learning' and further reduced students per teacher in Year 10						
	13. **Improved teaching processes** - allocated best teachers to Year 11						
	14. **Introduced performance measurement system** - standard measures introduced and real-time performance displayed						
	15. **Introduced employee development system** - teamwork and middle management development programmes	3 -	62 (+16)	6.2 (+0.4)	42 (+5)	102 (+5)	31 (+8)
Y4	16. **Expanded service offering** - set up sixth form						
	17. **Expanded employee development system** - mentoring and coaching						
	18. **Introduced quality management system** - trained staff in improvement tools and techniques	N/A	64 (+2)	6.8 (+0.6)	40 (-2)	132 (+30)	53 (+18)
Y5	19. **Changed leadership** - Vice Principal, Associate VP and Head of Teaching and Learning moved to improve another school	1 (+2)	69 (+5)	7.3 (+0.5)	34 (-6)	150 (+18)	66 (+13)

Year 1:

The first step was to appoint a new governing board. Members were selected based on their previous experience of improving organisational performance. The board then appointed a new Principal to lead the academy. The Principal immediately hired a PR team to build a new public profile, which included rebranding. The Principal and board understood investment was required to improve performance. Both recognised that they could compete in one area; making offers faster than the competition. As a result, senior managers spent time revising the customer journey to reduce the turnaround time of admission procedures. Each functional-based team consolidated and standardised the administration processes they managed. Processes were mapped to identify which were critical, which added value and which could be eliminated. An IT system was then implemented to automate remaining admission procedures. This led to a standardised, automated online application portal, which increased 'delivery system automation' as parents were able to apply for places online. As a result, the level of paperwork and manpower used in admission processes was

significantly reduced, which further reduced costs. Once this portal was implemented, the service offering was expanded to create an all-through academy' from 0 to 16 years. 494 Primary students were admitted which increased sales revenue from £2.7M to £6.7M and created funds to make future changes. Then, the range of taught subjects was significantly narrowed to build teaching capacity. An Admissions Officer was appointed to improve student quality in the Primary School and reduce application lead-time within the Secondary School. This meant management could control the 'pipeline' of quality entering the academy. The reduced lead-time meant the Secondary School could make offers faster than its competition, which started to secure long term performance.

Year 2:

The next step was to use structures to focus management attention (management structures) and determine where future resources were located (level of centralisation). The Principal spent time changing the management and organisational structure to ensure it was secure, before improving processes. This included centralising Primary and Secondary back office activities and increasing a tier of middle managers by 50%. Performance increased as a result, and exam grades improved to 46%.

Year 3:

Once structures were secure, senior managers focused on stabilising teaching processes. This included: 1) allocating the best staff to teach students arriving into Year 11 without 5+ C grades, and the worst staff to teach students who already had 5+Cs, 2) introducing 'get ready for learning' techniques to reduce class disruption; and 3) increasing teaching expectations by revising the 'capability' system for managing poor performance (20 staff placed on this and 14 sacked). Once processes were secure, the board appointed two Principals to lead the Primary and Secondary schools, and positioned the former Principal as an Executive Principal. Each Principal was tasked with improving the teaching process and the management and development systems used. Management consultants were used to support these improvements, which included interviews with students to set agreed goals and standards of behaviour; after-school intervention classes and

learning incentives linked to student events. Stricter rules followed which included a zero tolerance behaviour policy: disrespecting teachers, disrupting lessons and using mobile phones all met with immediate consequences. This improved behaviour immediately and provided teachers with an opportunity to improve teaching quality. Performance increased as a result and exam grades improved to 62%. Performance continued to increase and in 2012 64% of students achieved 5+ A*- C grades (including English + Maths).

Year 4:

A strategy was then developed for continuous service investment, to keep ahead of competitors. The first step was to expand the existing service offering. A sixth form centre (16-19) was opened and A-Level teachers recruited. Performance continued to improve and, in 2013, OfSTED returned. The academy was graded 'outstanding' in all categories.

Year 5:

Then, the Primary and Secondary Vice Principals, the Head of Primary and Teaching and Learning were seconded to turn around an academy in a coastal area of South East England.

4.2.4 Urban 2 - Case 4

Urban 2 is an 'outstanding' academy located in an urban area of South East England. Five years ago, its business performance was considerably lower. In July 2009, 34% of students achieved 5+ A*- C grades. An inspection followed and Leadership and Management were graded 'unsatisfactory' (4). As a result, the school was placed into 'special measures' (4) and closed. It then reopened as an academy and started to make a number of investments to improve performance.

Year Investments	Performance impact (change from previous year)					
	Operational		Financial		Competitiveness (applications)	
	OfSTED grading	Exam results (% 5+C)	Revenue (£M)	Profit (% sales)	% capacity	% outside 1mile
Y1 **1. Changed governing board** - appointed members on experience/capability and created operational/financial performance focus (no community reps or parents)						
2. Changed leadership - new principal focused on leadership, performance and process (Future Leaders graduate)						
3. Rebranded - using marketing and media consultants to build new public profile						
4. Improved admissions process - reduced lead-time and enabled on-line applications						
5. New building - increased student capacity and improved front and back office facilities						
6. Reduced service offering - reduced subjects taught (increased Maths and English focus)						
7. Stabilised teaching process - improved student behaviour and reduced students per teacher in Year 10 (already low in Year 11)						
8. Expanded service offering - acquired primary school and integrated it into the existing product and service range	3 (+1)	31 (-1)	3.0 (-1.0)	5 (+14)	54 (-41)	2 (+2)
Y2 **9. Centralised back office** - standardised activities and reduced costs						
10. Stabilised teaching process - improved student behaviour						
11. Improved teaching process - increased targets and introduced 'capability' system	N/A	49 (+18)	3.1 (-+0.1)	8 (+3)	54 -	7 (+5)
Y3 **12. Stabilised teaching processes** - introduced 'get ready for learning' and further reduced students per teacher in Year 10						
13. Improved teaching processes - allocated best teachers to Year 11						
14. Introduced performance measurement system - standard measures introduced and real-time performance displayed						
15. Introduced employee development system - teamwork and middle management development programmes	2 (+1)	63 (+14)	4.3 (+1.2)	13 (+5)	57 (+3)	18 (+11)
Y4 **16. Expanded service offering** - set up sixth form						
17. Expanded employee development system - mentoring and coaching						
18. Introduced quality management system - trained staff in improvement tools and techniques	N/A	65 (+2)	4.7 (+0.4)	14 (+1)	61 (+4)	36 (+18)
Y5 **19. Changed leadership** - Vice Principal, Associate VP and Head of Teaching and Learning moved to improve another school	1 (+1)	66 (+1)	4.8 (+0.1)	16 (+2)	61 -	51 (+15)

Year 1:

Urban 2 immediately improved governance and leadership by appointing a new governing body, with members selected based on their previous experience of improving organisational performance. The board then appointed a new Principal, who hired a PR team to build a new public profile, which included rebranding. Senior managers spent time revising the customer journey to reduce turnaround time of admission procedures. Each functional-based team consolidated and standardised the administration processes they managed. Processes were mapped to identify which were critical,

which added value and which could be eliminated. An IT system was then implemented to automate remaining admission procedures. This led to a standardised, automated online application portal, which increased 'delivery system automation' as parents were able to apply for places online. As a result, the level of paperwork and manpower used in admission processes was significantly reduced, which further reduced costs. An Admissions Officer was then appointed to improve student quality and reduce application lead-time, which meant the academy could make offers faster than its competition. The range of taught subjects was then significantly narrowed to build English teaching capacity. This time was found by integrating subjects of less perceived importance into other areas of the curriculum.

Year 2:

A strategy was implemented to attract higher quality customers. The academy provided free bus travel to a nearby Chinese community, and completed various marketing campaigns including local radio. Chinese students increased from 0% to 5%, and increased to 24% in 2014. Marketing campaigns were also completed in Dubai, Qatar and Abu-Dhabi to attract parents with second homes in the Middle East. Arabic students increased from 1% to 9%, and increased to 11% in 2014.

Year 3:

Then, the Principal spent time changing the management and organisational structures to ensure they were secure. This included centralising back office activities and increasing a tier of middle managers by 50%. Performance increased as a result, and exam grades improved to 49%. Once structures were secure, three Vice Principals were appointed to stabilise and improve the teaching process and the management and development systems used. Management consultants were used to support these improvements. This improved behaviour immediately and provided teachers with an opportunity to improve teaching quality. Performance increased as a result and exam grades improved to 63%. However, as the academy gained reputation, service developments were more visible to competitors and easier to imitate. Competitors started to fight back. Similar services were developed, such as allowing students to sit GCSEs early. As a result, competitive advantage reduced.

Senior managers then recognised that service developments positively impacted performance for a limited time only. A strategy was developed for continuous service investment, to keep ahead of competitors.

Year 4:

The first step was to expand the existing service offering. A sixth form centre (16-19) was opened and A-Level teachers recruited. The 'all-through academy' now provided 11-19 provision (Secondary Phase and a sixth form centre). This service development created significant 'competitor barriers to entry' as the capability of its delivery system was difficult to imitate. Applications for places increased from students living more than one mile away, and the capacity filled rose. Performance continued to improve and, in March 2014, OfSTED returned and graded the academy 'outstanding'.

Year 5:

Then, the Primary and Secondary Vice Principals, the Head of Primary and Teaching and Learning were seconded to turn around an academy in a coastal area of South East England.

4.2.5 Rural 1 – Case 5

Rural 1 is an 'outstanding' academy located in a rural area of South West England. Five years ago, its business performance was considerably lower. In July 2008, 22% of students achieved 5+ A*- C. An inspection followed and Leadership and Management were graded 'unsatisfactory' (4). As a result, it was placed into 'special measures' (4) and closed. It then reopened as an academy and started to make a number of investments to improve performance.

Figure 28: Rural 1 investments and performance impact over the last 5 years

Year	Investments	Performance impact (change from previous year)					
		Operational		Financial		Competitiveness (applications)	
		OfSTED grading	Exam results (% 5+C)	Revenue (£M)	Profit (% sales)	% capacity	% outside 1mile
Y1	1. **Changed governing board** - appointed members on experience/capability and increased operational/financial performance focus (no community reps or parents)						
	2. **Changed leadership** - new principal focused on student behavior						
	3. **Rebranded** - using marketing and media consultants						
	4. **Improved admissions process** - reduced lead-time and enabled on-line applications						
	5. **Improve back office facilities** - introduced IT system						
	6. **Stabilised teaching process** - improved student behaviour						
	7. **Improved teaching process** - increased senior leaders' teaching workload						
	8. **Introduced middle management** - non-teaching to manage parents						
	9. **Reduced teaching costs** - reduced number of Year 7-9 teachers						
	10. **Changed management structure** - allocated staff and students to 5 houses	3 (+1)	31 (+2)	2.8 (-0.6)	(31) (-23)	49 (-8)	14 (+13)
Y2	11. **Reduced overhead costs** - 32 staff						
	12. **Introduced employee development system** - coached middle managers and senior leaders						
	13. **Stabilised teaching process** - improved student behaviour						
	14. **Introduced 'results' performance targets** - rather than revenue						
	15. **Changed student profile** - started rejecting applications						
	16. **Increased service offering** - introduced vocational subjects to improve 'student outcomes'	2 (+1)	31 -	2.8 -	(21) (+10)	55 (+6)	16 (+2)
Y3	17. **New building** - increased student capacity and improved facilities						
	18. **Changed leadership** - new principal focused on leadership, performance and process (Future Leaders graduate)						
	19. **Reduced overhead costs** - 75% (17) of middle managers						
	20. **Stabilised teaching process** - improved student behaviour (149 excluded)						
	21. **Improved teaching process** - increased Year 11 salary, senior leaders' teaching workload, observations and introduced 'capability' system						
	22. **Expanded service offering** - introduced 'offsite' provision for other schools	2 -	33 (+2)	2.5 (-0.3)	(24) (-3)	49 (-6)	22 (+6)
Y4	23. **Reduced service offering** - reduced 40% of subjects taught to focus on Maths and English						
	24. **Introduced performance measurement system** - standard measures introduced and real-time performance displayed						
	25. **Introduced employee development system** - teamwork and middle management development programmes	N/A	63 (+20)	3.6 (+1.1)	(31) (-7)	67 (+18)	56 (+34)
Y5	26. **Stabilised teaching processes** - introduced 'get ready for learning'						
	27. **Reduced service offering** - further reduced 80% of subjects taught to focus on Maths and English						
	28. **Expanded service offering** - introduced weekend teaching for Maths and English						
	29. **Introduced employee development system** - 360 feedback and mentoring	1 (+1)	68 (+5)	4.3 (+0.7)	(7) (+24)	79 (+12)	59 (+3)

Year 1:

The first step was to appoint a new governing board. 11 applications were received from within the local community. None met the quality standard required so the trust used its own employees and partners, none of whom lived locally. The board appointed a new Principal who immediately hired a PR team to build a new public profile, which included rebranding. Senior managers spent time revising the customer journey to reduce turnaround time of admission procedures. Each functional-based team consolidated and standardised the administration processes they managed. This led to a standardised, automated online application portal, which increased 'delivery system automation' as parents were able to apply for places online. As a result, the level of paperwork and manpower used in admission processes was significantly reduced, which decreased costs. However, market competition increased. The number of applications declined and operating profit decreased to (£0.8M). Eight teachers resigned and accepted jobs at competitors. This caused teaching quality to reduce, which impacted student behaviour. The number of incidents increased to 919 which resulted in 55 fixed term exclusions and three permanent exclusions. Eight teachers and 13 support staff went on long term sick leave. As a result, the teaching workload of senior leaders increased from 10% to 50%. This caused exam results to increase by 7% to 29%.

Year 2:

The Principal then held discussions with the leadership team regarding ways to develop sustainable teaching practices (and reduce the teaching workload of senior leaders). The Principal decided to build a new site to attract customers, and to grow market share. The new building opened in September 2010, which improved class and back office facilities, and reduced costs by £0.2M to £3.1M. However, competitors had higher exam results and only 121 applications were received for 245 Year 7 spaces. As a result, capacity was only 40% filled, and operating profit decreased to (£0.6M). The Principal resigned, stating it was impossible to turn around the academy. The board then started to look for a new Principal with a revenue focus.

Year 3:

Once appointed, the new Principal identified that 60% of capacity was not utilised, and decided to open an offsite provision unit. 27 students were immediately transferred from competitors, which generated £0.2M revenue. The range of taught subjects in the main academy was then significantly narrowed to build Maths teaching capacity. This time was found by integrating subjects of less perceived importance into other areas of the curriculum. Drama became part of English and Dance part of PE.

Year 4:

The next step was to use structures to focus management attention. Once structures were secure, two Assistant Vice Principals were appointed to stabilise and improve the teaching process and the management and development systems used. This improved behaviour immediately and provided teachers with an opportunity to improve teaching quality. Performance increased as a result, and exam grades improved to 63%, though the academy could still not attract many students from outside of one mile. As a result, the service offering was expanded to create an 'all-through academy' from 0 to 16 years, by taking over two Primary Schools.

Year 5:

The board appointed two Principals to lead the Primary and Secondary schools and positioned the existing Principal as an Executive Principal, to control the 'pipeline' of student quality entering. Performance continued to improve and, in July 2014, 68% of students achieved 5+ A*- C (including English + Maths). OfSTED returned and graded the academy 'outstanding'.

4.2.6 Rural 2 – Case 6

Rural 2 is a 'good' academy located in a rural area of North West England. Five years ago, its business performance was considerably lower. In July 2009, 31% of students achieved 5+ A*- C (including English + Maths). An inspection followed and Leadership and Management were graded

'unsatisfactory' (4). As a result, the school was placed into 'special measures' (4) and closed. It then reopened as an academy and started to make a number of investments to improve performance.

Figure 29: Rural 2 investments and performance impact over the last 5 years

Year	Investments	Operational		Financial		Competitiveness (applications)	
		OfSTED grading	Exam results (% 5+C)	Revenue (£M)	Profit (% sales)	% capacity	% outside 1mile
Y1	1. Changed governing board - appointed members on experience/capability and increased operational/financial performance focus (no community reps or parents)						
	2. Changed leadership - new principal focused on student behavior						
	3. Rebranded - using marketing and media consultants						
	4. Improved admissions process - reduced lead-time and enabled on-line applications						
	5. New building - increased student capacity and improved facilities						
	6. Stabilised teaching process - improved student behaviour						
	7. Improved teaching process - increased senior leaders' teaching workload						
	8. Changed student profile - started rejecting applications and scrutinising incoming students more carefully						
	9. Performance measures – stronger focus on revenue and stabilising year 11 exam results in line with government floor target	N/A	40 (+7)	6.1 (+6)	22 (+11)	102 (+7)	0 -
Y2	10. Corporate Events Officer – appointed						
	11. Introduced middle management - non-teaching to manage parents						
	12. Stabilised teaching process - improved student behaviour						
	13. Introduced 'results' performance targets - rather than revenue						
	14. Changed student profile - revised criteria and started rejecting (24 applications rejected from students within 1 mile)						
	15. Houses – staff and students allocated to five houses	3 (+1)	43 (+3)	5.5 (-0.6)	15 (-7)	92 (-10)	0 -
Y3	16. Marketing consultants – created advertisements for local radio, to target customers outside						
	17. Subjects - increased Maths and English focus to 70% of the curriculum (reduced other subjects taught)						
	18. Leadership consultants - Sol Consulting used to improve teaching quality						
	19. Stabilised teaching process - introduced 'zero tolerance' policy for teacher disrespect, class disruption and mobile phones						
	20. Improved teaching process - increased Year 11 salary, senior leaders' teaching workload, observations and introduced 'capability' system						
	21. Changed student profile - revised criteria and started rejecting (18 applications rejected from students within 1 mile)	N/A	48 (+5)	5.4 (0.1)	13 (-2)	89 (-3)	0 -
Y4	22. Reduced service offering - reduced 40% subjects taught to focus on Maths and English						
	23. Introduced performance measurement system - standard measures introduced and real-time performance displayed						
	24. Introduced employee development system - teamwork and middle management development programmes	2 (+1)	54 (+6)	5.0 (-0.4)	0 (-13)	84 (-5)	0 -
Y5	25. Middle managers - increased by 50%						
	26. Senior leaders - reduced teaching workload from 90% to 20%						

Year Investments	Performance impact (change from previous year)					
	Operational		Financial		Competitiveness (applications)	
	OfSTED grading	Exam results (% 5+C)	Revenue (£M)	Profit (% sales)	% capacity	% outside 1mile
27. Introduced employee development system - 360 feedback and mentoring	N/A	58 (+4)	5.3 (+0.3)	(0.5) (-5)	82 (-2)	0 -

Year 1:

The first step was to appoint a new governing board. 11 applications were received from within the rural area. However, none met the quality standard required, so it decided to form a new board using its employees and partners, none of whom lived locally. Governance improved as a result, and the new board launched a national recruitment campaign for a new Principal. Seven applications were received from the rural area. Three candidates were interviewed but none were appointed. The Trust then increased the remuneration package and re-advertised the position. A successful candidate was identified from outside the rural area and appointed on a salary exceeding £100,000, reflecting urban pay and conditions. The new Principal immediately hired a PR team to build a new public profile, which included rebranding. Senior managers then spent time revising the customer journey to reduce turnaround time of admission procedures. Each functional-based team consolidated and standardised the administration processes they managed. Processes were mapped to identify which were critical, which added value and which could be eliminated. An IT system was then implemented to automate remaining admission procedures. This led to a standardised, automated online application portal, which increased 'delivery system automation' as parents were able to apply for places online. As a result, the level of paperwork and manpower used in admission processes was significantly reduced, which further reduced costs. The Principal then revised the 'capability' system for managing poor performance. 15 teachers were placed on capability, and five were sacked. Stricter rules for students followed which included a zero tolerance behaviour policy. The number of behavioural incidents increased to 1084, which resulted in 85 fixed term and four permanent exclusions. Behaviour started to improve, which provided teachers with an opportunity to improve teaching quality. In doing so, exam results increased by 9% to 40%.

Year 2:

An Admissions Officer was then appointed to improve student quality and reduce application lead-time. This meant management could control the 'pipeline' of quality. 24 applications were rejected from students within one mile, which started to improve student quality. Exam results increased to 43%. However, no applications were received from customers outside of one mile. Revenue decreased to £6.1M due to the opening of a local competitor (a start-up academy). Market competitiveness increased, and, as a result, academy marketing consultants created advertisements for local buses, inside and outside of a one mile radius.

Year 3:

The range of taught subjects was significantly narrowed to build English teaching capacity. This time was found by integrating subjects of less perceived importance into other areas of the curriculum. Drama became part of English and Dance part of PE. Exam results increased to 48%. However no applications were received from customers outside of 1 mile and revenue decreased to £5.4M, due to the expansion of the local competitor. Marketing consultants created advertisements for local radio, to target customers outside the one mile radius. Then, the Principal spent time changing the management and organisational structure to ensure it was secure, before improving processes. This included centralising back office activities and increasing a tier of middle managers by 50%. Performance increased as a result, and exam grades improved to 48%.

Year 4:

Next, management focused on stabilising teaching processes. Performance continued to improve and, in December 2013, OfSTED returned and graded the academy 'good'. The following month, three Vice Principals were employed to improve the teaching process and the management and development systems used.

Year 5:

Management consultants were used to support these improvements. This improved behaviour and provided teachers with an opportunity to improve teaching quality. Performance increased as a result, and exam grades improved to 58%.

4.2.7 Coastal 1 – Case 7

Coastal 1 is a 'good' academy located in a coastal area of South West England. Five years ago, business performance was considerably lower. In July 2008, 24% of students achieved 5+ A*- C. An inspection followed and Leadership and Management were graded 'unsatisfactory' (4). As a result, the school was placed into 'special measures' (4) and closed. It then reopened as an academy and started to make a number of investments to improve performance.

Figure 30: Coastal 1 investments and performance impact over the last 5 years

Year Investments	Performance impact (change from previous year)					
	Operational		Financial		Competitiveness (applications)	
	OfSTED grading	Exam results (% 5+C)	Revenue (£M)	Profit (% sales)	% capacity	% outside 1mile
Y1 1. **Changed governing board** - appointed members on experience/capability and increased operational/financial performance focus (no community reps or parents)						
2. **Changed leadership** - new principal focused on culture						
3. **Rebranded** - using marketing and media consultants						
4. **Improved admissions process** - reduced lead-time and enabled on-line applications						
5. **Introduced IT system** - in back office						
6. **Improved teaching process** - increased senior leaders' teaching workload						
7. **Tried to stabilise teaching process** - unsuccessfully tried to improve student behaviour						
8. **Changed leadership** - new principal appointed with behaviour focus after student riot causing £150k damage	4	18 (-7)	8.4 -	24 (-4)	70 -	0 -
Y2 9. **Stabilised teaching process** - improved student and teacher behaviour						
10. **Introduced middle management** - non-teaching to manage parents						
11. **Increased service offering** - introduced vocational subjects to improve 'student outcomes'						
12. **Introduced performance measurement system** - standard measures introduced and real-time performance displayed	N/A	25 (+7)	8.3 (-0.1)	18 (-6)	139 (+69)	0 -
Y3 13. **New building** - with improved facilities, but 50% less student capacity						
14. **Centralised activities** - from two sites into one						
15. **Further stabilised teaching process** - improved student and teacher behaviour in new building						

101

Year	Investments	Operational		Financial		Competitiveness (applications)	
		OfSTED grading	Exam results (% 5+C)	Revenue (£M)	Profit (% sales)	% capacity	% outside 1 mile
	16. **Further improved teaching process** - increased teaching workload for senior leaders	3 (+1)	29 (+4)	5.6 (-2.7)	3 (-15)	130 (-9)	0 -
Y4	17. **Further centralised activities**						
	18. **Reduced service offering** - reduced 50% subjects taught to focus on Maths and English	4 (-1)	24 (-5)	5.6 -	25 (+22)	125 (-5)	0 -
Y5	19. **Changed leadership** - new principal focused on leadership and performance (Future Leaders graduate)						
	20. **Further centralised activities** – using operations management consultants						
	21. **Changed management structure** - functional teams to manage and improve processes						
	22. **Reduced overhead costs** - 44 staff						
	23. **Reduced teaching costs** - 26 staff						
	24. **Further stabilised teaching process** - introduced 'The Mayfield Way', improved student attendance (from 89% to 95%) and introduced 'get ready for learning'						
	25. **Further improved teaching process** - increased Year 11 salary and teaching observations (focused on 'transition periods')						
	26. **Further reduced service offering** - further reduced 80% subjects taught to focus on Maths and English	3 (+1)	61 (+29)	60 (+19)	18 (-7)	117 (-8)	3 (+3)

Year 1

The first step was to appoint a new governing board. Members were recruited from the local community. The board appointed a new Principal who immediately hired a PR team to build a new public profile, which included rebranding. The Principal then restructured the academy timetable and separated students by creating a two tier roll across two sites. Behavioural incidents increased and two months later, a student riot caused £0.2M damage. The Principal resigned and the board appointed a behaviour focused Principal. The new Principal reduced homework by 50% to increase student satisfaction. Student behaviour improved and the number of incidents declined to 1,534, but exam results decreased to 18%. An inspection followed and the academy was graded 'inadequate'.

Year 2:

The Principal then appointed an Admissions Officer to improve student quality into the SBU and reduce application lead-time. Performance improved and exam results increased to 25%.

Year 3:

The Principal then decided to build a new site to further control the 'pipeline' of quality, which opened in September 2010 and reduced capacity by 50%. This decision meant managers could begin controlling demand; the academy received 417 applications for 300 spaces, and rejected 16 applications from within one mile. Exam results increased to 29%. However, competitors had higher exam results and therefore no applications were received from outside of one mile. Revenue decreased to £5.7M, reducing operating profit by £1.3M to £0.1M.

Year 4:

A revenue focus was then implemented; a Corporate Events Officer was employed to generate non-teaching revenue. Revenue increased to £6.0M but exam results declined to 24%. An inspection followed and the academy was placed into 'special measures' (4). Costal 1 immediately appointed a new board using its employees and partners, none of whom lived locally. Governance improved and the new board launched a national recruitment campaign for a new Principal. Once appointed, the new Principal told senior managers to reduce turnaround time of admission procedures. Each senior manager consolidated and standardised the administration processes their teams managed. Processes were mapped to identify which were critical, which added value and which could be eliminated. An IT system was then implemented to automate remaining admission procedures. This led to a standardised, automated online application portal, which increased 'delivery system automation' as parents were able to apply for places online. As a result, the level of paperwork and manpower used in admission processes was significantly reduced, which further reduced costs.

Year 5:

The range of taught subjects was significantly narrowed to build English teaching capacity. The next step was to use structures to focus management attention (management structures) and determine where future resources were located (level of centralisation). The Principal spent time changing the management and organisational structure to ensure it was secure, before improving processes. This included centralising back office activities and increasing a tier of middle managers by 50%.

Performance increased, as a result, and exam grades improved to 36%, though the academy could still not attract students from outside one mile. Once structures were secure, SBU management focused on stabilising teaching processes. This improved behaviour immediately and provided teachers with an opportunity to improve teaching quality. A strategy was then introduced to attract higher quality teachers by increasing Year 11 teachers' average pay to £62,000, 28% of its total teaching budget. A year later pay increased further to £72,000. Higher salaries started to attract higher quality teachers. Performance increased as a result, and exam grades improved to 42%. Performance continued to improve and, in June 2014, OfSTED returned and graded the academy 'good'.

4.2.8 Coastal 2 – Case 8

Coastal 2 is a 'good' academy located in a coastal area of North East England. Five years ago, its business performance was considerably lower. In July 2008, 24% of students achieved 5+ A*- C. An inspection followed and Leadership and Management were graded 'unsatisfactory' (4). As a result, it was placed into 'special measures' (4) and closed. It then reopened as an academy and started to make a number of investments to improve performance.

Figure 31: Coastal 2 investments and performance impact over the last 5 years

Year	Investments	Performance impact (change from previous year)					
		Operational		Financial		Competitiveness (applications)	
		OfSTED grading	Exam results (% 5+C)	Revenue (£M)	Profit (% sales)	% capacity	% outside 1mile
Y1	1. Changed governing board - appointed members on experience/capability and increased operational/financial performance focus (no community reps or parents) 2. Changed leadership - new principal focused on culture 3. Rebranded - using marketing and media consultants 4. Tried to centralise - unsuccessfully tried to centralise front office activities 5. Improved teaching process - increased expectations and introduced 'capability' system for managing poor performance (5 teachers and 16 support staff managed out by this process) 6. Tried to stabilise teaching process - unsuccessfully tried to improve student behavior 7. Improved admissions process - reduced lead-time and enabled on-line applications	N/A	28 (+4)	6.3 (-0.2)	(1) (-12)	95 (+4)	0 (-)
Y2	8. Stabilised teaching process - improved student and teacher behavior						

104

Year	Investments	Performance impact (change from previous year)					
		Operational		Financial		Competitiveness (applications)	
		OfSTED grading	Exam results (% 5+C)	Revenue (£M)	Profit (% sales)	% capacity	% outside 1mile
	9. **Improved teacher behaviour** - increased expectations for managing poor performance (5 teachers and 12 support staff managed out by this process)						
	10. **Reduced capacity offering** – to 950 students						
	11. **Introduced performance measurement system** - standard measures introduced and real-time performance displayed	3 (+1)	32 (+4)	6.0 (-0.3)	(5) (-4)	116 (+21)	0 -
Y3	12. **New building** - with improved facilities, but 50% less student capacity						
	13. **Changed governing board** - appointed members on experience/capability and increased operational/financial performance focus (no community reps or parents)						
	14. **Further stabilised teaching process** - created non-teaching tier to interact with parents						
	15. **Further improved teaching process** - increased Maths and English focus to 50% of the curriculum (reduced other subjects taught)	3 -	40 (+8)	5.8 (-0.2)	(7) (-2)	113 (-3)	0 -
Y4	16. **Further centralised activities** - centralised front office activities						
	17. **Teaching Resources** - increased Year 11 teachers salary to help recruit more capable and experienced staff	4 (-1)	47 (+7)	5.3 (-0.5)	(21) (-14)	102 (-11)	0 -
Y5	18. **Acquired a primary school** - New Primary School (400 students), renamed but kept on separate site						
	19. **Student tutors** - introduced to get students 'ready for learning' at start of the day						
	20. **Changed management structure** - functional teams to manage and improve processes						
	21. **Reduced overhead costs** - 44 staff						
	22. **Reduced teaching costs** - reduced teaching workload from 80% to 10%						
	23. **Further stabilised teaching process** - increased expectations for managing poor performance (1 teacher and 8 support staff managed out by this process)						
	24. **Further improved teaching process** - to improve teaching quality and Tutor management (who gets students ready for learning at beginning of day)						
	25. **Mentoring** - on-line system to gather 360 feedback at least 6 times per year for everyone (fed into personal development plans)	2 (+2)	50 (+3)	4.9 (-0.4)	(30) (-9)	94 (-8)	0 -

Year 1:

The first step was to appoint a new governing board. Members were recruited from the local community. The board appointed a new Principal who immediately revised the 'capability' system for managing poor performance. Five teachers and 16 support staff were sacked. Stricter rules for students followed which included a zero tolerance behaviour policy. The number of behavioural incidents increased to 1053, which resulted in 121 fixed term and five permanent exclusions. Behaviour started to improve which provided teachers with an opportunity to improve teaching quality. As a result, exam results increased by 4% to 28%.

105

Year 2:

Senior Managers then spent time revising the customer journey to reduce turnaround time of admission procedures. Each functional-based team consolidated and standardised the administration processes they managed. Processes were mapped to identify which were critical, which added value and which could be eliminated. An IT system was implemented to automate remaining admission procedures. This led to a standardised, automated online application portal, which increased 'delivery system automation' as parents were able to apply for places online. As a result the level of paperwork and manpower used in admission processes was significantly reduced, which reduced costs. The Principal then introduced a code of conduct for staff, linked to the 'capability' system for managing poor performance. Five teachers and 12 support staff were managed out and stricter rules for students followed. Behaviour improved, and the number of incidents decreased to 975. Improved behaviour provided teachers with an opportunity to increase teaching quality. Outstanding lessons increased by 6% to 26%, and required improvement lessons decreased by 8% to 26%. As a result, exam results increased by 4% to 32%. OfSTED then returned and graded the school 'Satisfactory' (3). The following day, board members were asked to reapply for their positions; the Principal realised an improved rating made it easier to recruit members based on expertise, and recognised that appointing a board did not improve performance unless its members could deliver high quality governance.

Year 3:

The Principal then decided to build a new site to further control the 'pipeline' of quality, which opened in July 2011 and reduced capacity by 250 to 950. This decision meant managers could begin managing demand; the academy received 227 applications for 190 spaces, and rejected nine applications from within one mile. Exam results increased to 40%. The Principal then revised the 'capability' system for managing poor performance. Three teachers and nine support staff were managed out by this process.

Year 4:

However, two teachers were later suspended for sexually explicit behaviour on site. Five teachers graded 'outstanding' immediately resigned. Two teachers were then suspended for sending sexually explicit photos over the network. The photos were leaked to the local newspaper. A no-notice inspection followed and Behaviour and Safety were graded 'unsatisfactory' (4). A strategy was then introduced to attract higher quality teachers by increasing Year 11 teachers' average pay to £52,000, 37% of its total teaching budget. Higher salaries started to attract higher quality teachers.

Year 5:

Performance increased as a result, and exam grades improved to 50% though the academy could still not attract students from outside one mile. As a result the service offering was expanded to create an 'all-through academy' from 0 to 16 years, by taking over a Primary School. An Admissions Officer was then appointed to improve student quality in the Primary School and reduce application lead-time within the Secondary School. Performance continued to improve and, in June 2014, OfSTED returned and graded the academy 'good'.

4.3 Cross-case comparison

The different types and sequence of investments made is displayed in figures 33 and 34. A cross-school analysis of these investments is summarised in figure 32. Resultant changes in the market served, students taught and performance, five years after academisation, were different for each school and are identified in figure 35. This analysis is then presented graphically in figures 36 to 39.

Figure 32: Summary of investments made

Key development stages	Month of change in each school							
	Inner City		Urban		Rural		Coastal	
	Case 1	Case 2	Case 3	Case 4	Case 5	Case 6	Case 7	Case 8
1.Improve leadership and narrow objectives	1, 1, 3, 4, 12	1, 12, 13, 14, 19, 34	1, 2, 2, 9, 12	1, 2, 5, 15, 36, 58	1, 1, 12, 23, 36, 37, 50, 52, 59, 59	1, 2, 22, 29, 39, 50	1, 1, 3, 31, 46, 47, 48, 49, 60	1, 1, 25, 30, 41, 46, 54
2. Improve market perception	1	12	1	1, 12	1	1, 13, 26	1	1
3.Find resources	2, 46, 48	13, 29, 29	3, 5, 5, 48, 48	2, 36, 36	2, 28, 58	16	12	2, 12, 50, 50
4.Improve student quality	6, 46	8	4, 5	7	15, 58	11	19	20, 50
5.Change management and organisational structure	2, 12, 13, 25, 48, 48, 48, 48, 56	2, 3, 13, 15, 16, 24, 26, 27, 36, 37, 38	5, 12, 38, 38, 36, 37, 37, 37, 48	1, 3, 9, 13, 15, 18, 23, 26, 27, 37, 37,	1, 2, 5, 15, 25, 26, 49, 60, 60	5, 14, 15, 20, 20, 37, 48	2, 13, 24, 24, 24, 29, 36, 48, 48, 48, 49, 52	3, 4, 4, 5, 14, 14, 24, 26, 37, 38, 40, 54
6.Stabilise teaching process	1, 12, 37, 48	16, 18, 28	1, 36, 36	3, 17, 24	1, 16, 28, 48	3, 21, 27, 38	1, 14, 15, 24, 25, 30, 47, 50, 50	2, 12, 29, 40, 52
7.Improve teaching capability	2, 12, 12, 24, 36	3, 17, 17, 35, 48	12, 13, 23, 36, 47, 48	3, 16, 18, 36, 48, 60	2, 25, 26, 27, 27, 50	12, 19, 20	3, 25, 46, 47, 49, 59, 60	2, 27, 28, 36, 39, 55
8.Improve management and development systems	12, 14, 37, 38, 39, 40, 58	30, 39, 51	38, 39, 40, 41, 46, 48, 49	27, 28, 29, 38	13, 14, 25, 36, 37, 39, 53, 60	10, 29, 30, 40	16, 32, 46, 50, 60, 60, 60	15, 31, 56, 57, 59

Figure 32 identifies that each school began by improving leadership and narrowing objectives. Some schools repeated this investment during their performance journey, as it was difficult to attract high quality leadership and governance from within their market served. Next, public images were redesigned using marketing consultants and rebranding. Every school except Inner city 2 made this investment to improve market perception in month one. Rural 2 made this investment three times and

tried to attract students living more than one mile away. Although marketing consultants created advertisements for local radio and buses, the market they served was highly competitive and stable. This meant it was harder to attract students and therefore harder to increase revenue. Subsequently, operating profit remained low and lacked sufficient resources to fund overhead investments. Finding resources was particularly important for schools because it helped to fund future investments, which included improving new student quality, stabilising and improving the teaching process. Schools which found resources early were able to fund initiatives to improve performance quickly, but schools which found resources later on in their development found it more difficult. For example, Urban 1 was able to remove students disrupting processes immediately, whereas Coastal 2 could only afford to remove students over time. Next, the schools changed their management and organisational structures. This investment was made most often because many schools tried to improve teaching capability before the right structures were in place. Consequently, they had to go back and improve structures before improving processes. This wasted valuable time and resources. When the right structures were in place, schools were able to stabilise teaching processes. However, Rural and Coastal schools found this difficult due to the markets they served. Whilst Inner City and Urban markets changed over time, the Rural and Coastal markets stabilised (which is reflected in figure 35 and shows changes in the market served, students taught and performance over five years). Each school could not improve teaching processes until they had first been stabilised, because disruptive student behaviour undermined teaching quality. This meant it took Rural and Coastal schools longer to stabilise teaching processes, and they then found it difficult to improve these processes. By contrast, Urban 1 and 2 made this investment relatively quickly, and exam results increased immediately. At which point, investments were made to improve management and development systems. All schools used new systems to stabilise previous investments, and although these changes did not increase performance, they did create future improvement opportunities.

By highlighting the order in which these eight key investments were made, a number of patterns emerge. Some investments were made sequentially, whilst others were repeated multiple times. For example, the investments made by the Inner City and Urban schools followed a similar sequence. In

contrast, investments made by the Rural and Coastal schools followed a different sequence. These sequential patterns are now explored in detail. Figures 33 and 34 analyse the different types and sequence of investments made, firstly within Inner City and Urban schools and, secondly within Rural and Coastal schools.

Figure 33: Different types and sequence of investments within Inner City and Urban schools

Key development stages	Sequence of changes within each school			
	Inner City 1 (Case 1)	Inner City 2 (Case 2)	Urban 1 (Case 3)	Urban 2 (Case 4)
1. Improve leadership and narrow objectives				
Improve governing board	1	1, 12	1	1
Improve leadership	1	13	2	2, 58
Improve financial and operational performance focus	3	34	1	36
Increase Maths and English subject focus	4	19	9	5
Reduce senior leaders' teaching workload	12	14	12	15
2. Improve market perception				
Rebrand and communicate change to general public	1	12	1	1, 12
3. Find resources				
Reduce admissions lead-time and enable on-line applications	2	13	3	2
Acquire or set up primary school	46		5	
Set up sixth form		29	48	36
Expand secondary service offering	48	29	5, 48	36
4. Improve student quality				
Change type of students entering the school	6	8	4	7
Acquire or set up primary school	46		5	
5. Change management and organisational structure				
Open new school to create single site, increase student capability and improve facilities	48	24	5	1
Centralise back office activities	8	3, 37	37, 48	13
Introduce middle management to manage parents	13	2, 13	12	9, 15
Improve back office facilities	48	27	37	3, 37
Reduce number of teachers	12	16	28	18, 26
Set up 'houses' for students and staff	2	36		
Reduce number of back office staff	25	15	28	23, 27
Centralise front office activities	48	26	37	37
Create process management structure	56	38	36	
6. Stabilise teaching process				
Improve student attendance and behaviour	1, 12	16	1, 36	17
Introduce 'get ready for learning' to prepare students for class	37, 48	28	36	24
Improve teacher behaviour		18		3
7. Improve teaching capability				
Increase teacher performance targets, introduce a 'capability system' to improve teaching capability and manage out poor performance	12	17	12	18
Increase teaching observations	12	17	13	16
Allocate best teachers to Year 11 and allocate best teachers to worst performing students			47	
Increase senior leaders' teaching workload	2	3	13	3
Increase salary to attract better Year 11 teachers	24, 36	35, 48	36, 48	36, 48, 60
8. Improve management and development systems				
Introduce standard performance measures and display real-time performance	37	30	38	28
Develop teamwork and middle management capability	14, 38	39	39	27
Introduce 360 feedback, mentoring and coaching	40	51	46	29, 38
Train staff in quality tools and techniques	39, 58	39	41, 49	27
Develop senior leader capability	12	51	40, 48	29, 38

111

Figure 34: Different types and sequence of investments within Rural and Coastal schools

Key development stages	Sequence of changes within each school			
	Rural 1 (Case 5)	Rural 2 (Case 6)	Coastal 1 (Case 7)	Coastal 2 (Case 8)
1. Improve leadership and narrow objectives				
Improve governing board	1, 36	1	1, 46	1, 25
Improve leadership	1, 23, 59	2	1, 3, 47	1
Improve financial and operational performance focus	12	22	48	46
Increase Maths and English subject focus	37, 50, 52	29, 39	31, 49	30, 41
Reduce senior leaders' teaching workload	59	50	60	54
2. Improve market perception				
Rebrand and communicate change to general public	1	1, 13, 26	1	1
3. Find resources				
Reduce admissions lead-time and enable on-line applications	2	16	12	2, 12
Acquire or set up primary school	58			50
Set up sixth form				
Expand secondary service offering	28			50
4. Improve student quality				
Change type of students entering the school	15	11	19	20
Acquire or set up primary school	58			50
5. Change management and organisational structure				
Open new school to create single site, increase student capability and improve facilities	24		24	24
Centralise back office activities	49		24, 29, 48	3, 37
Introduce middle management to manage parents	1, 60	14, 48	13, 52	26, 54
Improve back office facilities	5	5	2	4
Reduce number of teachers	26	20	48	5, 14, 40
Set up 'houses' for students and staff	2	15		
Reduce number of back office staff	15, 25	20	49	14
Centralise front office activities	60	37	24, 36	4
Create process management structure	49		48	38
6. Stabilise teaching process				
Improve student attendance and behavior	1, 16, 28	3	1, 14, 25	2, 12
Introduce 'get ready for learning' to prepare students for class	48	38	47, 50	52
Improve teacher behavior		21, 27	15, 24, 30, 50	29, 40
7. Improve teaching capability				
Increase teacher performance targets, introduce a 'capability system' to improve teaching capability and manage out poor performance	27	20	46	2, 39
Increase teaching observations	27	19	49, 60	28, 55
Allocate best teachers to Year 11 and allocate best teachers to worst performing students	50			
Increase senior leaders' teaching workload	2, 26		3, 25	27
Increase salary to attract better Year 11 teachers	25	12	47, 59	36
8. Improve management and development systems				
Introduce standard performance measures and display real-time performance	10, 29	36	16,32	15, 31
Develop teamwork and middle management capability	30	13, 37	50, 60	56
Introduce 360 feedback, mentoring and coaching	40	53	60	57, 59
Train staff in quality tools and techniques	30	39, 60	60	56
Develop senior leader capability	40	14, 25	46	57, 59

Figure 35: Changes in market served, students taught and performance over five years

Market, students and Performance	Inner City 1 (Case 1)		Inner City 2 (Case 2)		Urban 1 (Case 3)		Urban 2 (Case 4)		Rural 1 (Case 5)		Rural 2 (Case 6)		Coastal 1 (Case 7)		Coastal 2 (Case 8)	
	Y0	Y5	Y0	Y5	Y0	Y5	Y0	Y5	Y0	Y5	Y0	Y5	Y0	Y5	Y0	Y5
Market served (<1 mile away)																
Available students (000)	6.2	6.5	6.2	6.9	5.6	6	5.5	6	4.1	4.3	4.6	4.6	3.5	3.4	6.9	6.8
Competitors	5	5	5	5	3	3	3	3	4	5	2	3	2	2	5	5
Market served (between 1 - 2 miles away)																
Available students (000)	4.4	4.8	4.2	4.9	4.9	5.4	3.9	4.5	0	0	0	0	1.1	0.9	0	0
Competitors	3	3	3	4	3	3	3	3	0	0	1	1	2	2	0	0
Market served (between 2 - 5 miles away)																
Available students (000)	5.6	5.9	5.1	5.7	5.1	5.6	3.7	4.3	0	0	0	0	0.6	0.5	0	0
Competitors	3	3	3	2	2	2	2	2	0	0	0	0	1	1	0	0
Total market served																
Available students (000)	16.2	17.2	15.5	17.5	15.6	17	13.1	14.8	4.1	4.3	4.6	4.6	5.2	4.8	6.9	6.8
Competitors	11	11	11	11	8	8	8	8	4	5	3	4	5	5	5	5
Students taught																
Number	1.3	0.9	1	0.8	0.9	1	0.9	0.7	0.8	0.6	1.2	0.9	2	1.1	1.1	0.8
Ethnicity (% white)	50	35	65	50	60	17	57	24	92	89	85	80	91	78	97	92
Motivation (% living >1 mile away)	0	53	5	48	0	67	0	51	0	35	0	0	0	0	0	1.5
Operational performance																
OfSTED (1-4)	4	-	3	-	4	1	-	1	4	-	4	-	3	3	4	2
Exam results (%5+ C)	24	53	26	56	31	69	32	66	22	63	31	58	25	36	24	50
Financial performance																
Sales revenue (£M)	5.8	6.3	4.4	5.5	2.7	7.3	4	4.8	3.4	3.6	5.5	5.3	8.9	5.6	6.5	4.7
Operating profit (% sales revenue)	0	17	0	14	(10)	34	(9)	16	(8)	(7)	11	(5)	28	18	11	(30)
Competitiveness (student)																
Applications (% available capacity)	92	112	101	132	97	150	98	137	57	79	95	101	70	117	98	113
Distance (% applications > 1 mile away)	1	59	1	56	2	66	0	66	0	12	0	3	0	3	0	14
Market share (% competitor average)	139	78	96	67	92	100	96	76	89	63	109	95	249	82	100	75

Key

Significant increase

Significant decrease

4.4 Investments made in each school

Figure 35 demonstrates that each school made investments in eight steps: 1. Improve leadership and objectives; 2. Improve market perception; 3. Find resources; 4. Improve student quality; 5. Change the management and organisational structure; 6. Stabilise teaching process; 7. Improve teaching capability; 8. Improve management and development systems. The implementation and sequence of these investments was varied, and the resultant changes in market served, students taught and performance, five years after academisation, was different for each school. The significant points that emerge from these analyses are now discussed.

4.4.1 Step 1 - Improve leadership and objectives

The first step for schools was to improve leadership and objectives. Two main changes were made and are outlined below. These changes helped to narrow objectives, increase focus and enhance decisions of governors and senior leaders.

1. Appoint a new governing board	When appointing a new board, Urban 1 and 2, Inner City 1 and 2 selected members with capability and previous experience of improving organisational performance. Meeting minutes indicated that each board increased focus by introducing weekly financial and operational performance measures. New members used capability to narrow objectives and improve decisions. By contrast, Rural 1 and 2 and Coastal 1 and 2 selected members from the market they served. Decision making did not improve because financial and operational performance objectives were not prioritised. Coastal 2 for example measured parental engagement, community cohesion, and student health. OfSTED completed an inspection in month 25 and graded governance 'ineffective' because these indicators did not help improve organisational performance.

2. Appoint a new Principal	When appointing a new Principal, some schools had greater success than others. For example Coastal 1 recruited a data focused Principal in month one on a salary exceeding £75,000, reflecting coastal teaching pay and conditions. The Principal was sacked three months later after a student riot caused £0.2M damage. The board then recruited a behaviour focused Principal on a salary exceeding £70,000, who was sacked in 2012 after OfSTED graded the school 'Inadequate'. A second board were appointed and members recruited for specific expertise. Seven applications were received from the local area but none met the quality standard required. The trust then formed a new board using employees and partners, none of whom lived locally. The collective capability of members improved governance. Decision making increased and the board launched a national recruitment campaign for an operational, performance focused Principal. Eight applications were received from the local area. Three candidates were interviewed but none met the quality standard required. The board then increased the remuneration package and re-advertised the position. A successful candidate was identified from an urban area and appointed on a salary exceeding £100,000, reflecting urban pay and conditions. The new Principal immediately narrowed objectives, increased focus and improved decisions. Rural 1 also appointed a new governing board in month one, which did not increase focus or improve decision making. Despite insufficient capability, the board recruited a teaching focused Principal on a salary exceeding £75,000, reflecting rural teaching pay and conditions. Outstanding lessons increased from 14% to 22% and inadequate lessons decreased from 47% to 37%. However, financial performance objectives were delegated to middle managers. Without a strategic focus, operating profit declined to (£0.9M). In month 21, a national recruitment campaign to replace the

	Principal attracted nine applications from the local area. Three candidates were interviewed but none met the quality standard required. The board then approached an inner city Vice Principal with a strong financial performance focus. A significant relocation package was offered, reflecting inner city pay and conditions. The candidate accepted and was appointed on a salary exceeding £130,000. The new Principal immediately narrowed objectives and reformed the board in month 35. New members were selected on capability and previous experience of improving organisational performance.

4.4.2 Step 2 - Improve market perception

The second step for schools was to improve market perception. Two main changes were made and are outlined below. These changes helped to communicate change to customers and created market opportunities by increasing applications.

1. Rebrand	Each school hired designers to distance association with their predecessor and build a new public profile, which included rebranding. This strategy improved their public image. Within one month the branding of all schools was redesigned including logo, uniform, stationery, website and registered name.
2. Hire PR and Marketing teams	Each school hired PR and Marketing Teams to improve perception and create market opportunities. Schools which served markets containing high quality students improved market perception within three months and increased customer applications within six months. By contrast, schools with limited access to high quality students took longer to improve market perception and had to repeat several investments. For example Rural 2 created advertisements for local buses and radio in months 12, 24, 36 and

	48. However, further communication investments could not be made until supporting revenue had been secured.

4.4.3 Step 3 – Find resources

Schools then had to find and secure revenue for future investments. Four main changes were made and are outlined below. These changes helped improve financial performance and increased the ability to invest in long term initiatives.

1. Improve admissions processes	Three months after academisation, Urban 1 and 2, Inner City 1, Rural 1 and Coastal 2 improved their admissions processes by introducing online application services to attract new customers. Coastal 1 and Inner City 2 made similar investments within month 12, and rural 2 within month 16, which increased delivery system automation. Each school introduced delivery speed focused performance measures and linked them to employee rewards and developments. Application turnaround increased, which created investment opportunities, because competitors used paper-based admission services. Functional teams were then created to improve admission processes by reducing costs and shortening lead-times. Applications increased as customers liked the new capability this developed. Each functional team standardised and automated processes which further reduced costs. However these developments were visible and easy to imitate. Within 12 months competitors fought back by developing similar services. Schools had to find new sources of revenue to sustain investment opportunities. By contrast, the other schools did not expand service offerings until later in their development.

2. Acquire a primary	Inner City 1 opened a primary school in month 46 and Coastal 2 in month 50. Rural 1 planned vertical integration in month 28 but did not have enough teachers to offer primary education. Rural 1 instead opened an offsite provision unit, and used its excess capacity to provide competitors with opportunities to transfer low quality and disruptive students. 27 students were enrolled in month 29 which generated £0.2M revenue. This helped fund the recruitment of teachers and later the opening of a primary school in month 58. The decision by Inner City 1, Rural 1 and Coastal 2 to delay vertical integration reduced their financial performance and ability to invest in long term initiatives.
3. Acquire a sixth form	Coastal 1, Urban 2, Inner City 2 and Rural 2 were not able to open primary schools and adopted alternative strategies to find and secure resources. Urban 2 and Inner City 2 expanded service offerings by opening sixth forms, which retained existing Year 11 students and improved sales revenue. Urban 2 retained 100 students in month 25 creating £0.5M revenue, which increased to £0.7M in month 60. Inner City 2 retained 200 students in month 25 creating £1M revenue, which increased to £1.2M in month 60. Although opening a sixth form did not control the 'pipeline' of quality, it did develop the alumni process. Graduates leaving in year 13 to pursue university education returned to support teaching activities on a voluntary basis, and undertook mentoring activities which developed the motivation of younger students.
4. Expand product and service offerings	Coastal 1 was not able to open a sixth form due to the coastal market it served, which experienced a 'brain drain' of high quality Year 11 students. Instead the product and service offering was expanded to offer adult education. Rural 2 was not able to offer sixth form or adult education due to the rural market it served, which was small and contained limited access to

	high quality students. Alternative strategies to find and secure resources were adopted; the secondary service offering was differentiated from competitors. 100 minute lessons were introduced in month 38 to reduce transition periods and maximise academic product designs. Students were encouraged to complete GCSEs early. Four months after academisation, the school invested in a new site which further improved its non-academic product design. Marketing consultants then created advertisements for local buses and radio in months 12, 24, 36 and 48. Advertisements were also created for local shopping centres in month 36 and 48, which started to attract customers from outside one mile and increased sales revenue to £5.3M in month 60.
5. Vertically integrate	Urban 1, Inner City 1, Rural 1 and Coastal 2 acquired a primary school and vertically integrated it to create an 'all through' academy. The new 'all through' product design attracted middle class parents who drew comparisons with private education. Urban 1 made this investment in month five and experienced four benefits. Firstly, it increased sales revenue from £2.7M to £6.7M, which created funds to invest elsewhere. Secondly, it created an opportunity to centralise back office activities across its primary and secondary schools which reduced costs; centralisation focused management attention (management structures) and determined where resources were located (level of centralisation). The new structures enabled managers to benchmark performance and share best practice across departments, which further reduced costs. Thirdly, it improved the mix of students entering its secondary school; managers were able to control the 'pipeline' of quality and reduce the variance of students faster than competitors. Fourthly, it became aware of market trends and developments earlier; knowledge and resources were shared between the primary and

	secondary school. Secondary teachers provided secondary-style lessons to Primary students and provided opportunities to achieve GCSEs early. This created significant 'competitor barriers to entry' as its delivery system capability was difficult to imitate, which increased competitive advantage. Inner City 1 found similar benefits, and vertically integrated to create an 'all through' academy in month four which increased revenue from £4M to £4.8M. Operating profit increased from £0.7M to £1M which created funds to expand the Admissions team. The larger team scrutinised applications more carefully. 82 students were rejected and 95 students were rejected the following year, which helped change the market served and improve student quality.

4.4.4 Step 4 – Improve student quality

Once revenue had been secured, the next step for schools was to improve the quality of the students. Two main changes were made and are outlined below. These changes helped create process improvement opportunities. However, these changes could only be made after revenue had been secured, because initiatives to improve student quality increased overhead costs and reduced sales revenue.

1. Remove students disrupting teaching processes	Urban 1 was first to stabilise its teaching process. It acquired a primary school in month five, significantly earlier than its competitors. By controlling the 'pipeline' of quality and managing applications over time, the Admissions team was able to change the student mix. The Primary school acquisition also increased sales revenue from £2.7M to £6.7M which helped fund attendance and behaviour investments in the secondary school. This included a new behaviour policy which reduced tolerance of poor behaviour. The number of behavioural incidents increased from 675 to 1043. Due to its

	improved financial performance it could afford to remove students disrupting teaching processes, which resulted in 192 fixed term and 6 permanent exclusions. The removal of these students immediately improved behaviour and provided teachers with an opportunity to improve teaching quality; exam results increased from 26% to 46%. By contrast, the other schools did not expand service offerings until later in their development and were therefore unable to remove disruptive students quickly.
2. Reject applicants living within one mile	As Urban 1 and 2, Inner City 1 and 2 improved operational performance they were able to change the market they served. This change helped stabilise and improve their teaching process by attracting more motivated students who lived further away. In 2009, the Urban 1 market contained 5,776 students. Five years later, the market increased to 6,203. 314 applications were received for 210 places. The Admissions team changed the student mix by rejecting 39 applications, leaving academy capacity 100% filled. 36 of the rejected applicants lived within one mile. A similar mix change occurred within the Inner City 1 market, which, in 2009, contained 6,198 students. Five years later, the market increased to 6,460. 326 applications were received for 290 places. The Admissions team changed the student mix by rejecting 98 applications, leaving capacity 72% filled. 96 of the rejected applicants lived within one mile. Managing the student mix through application rejection was more important than revenue generation; it had already found resources by opening a primary school. Despite holding 28% available capacity, it generated £6.1M revenue and retained £1.1M as operating profit. Urban 2 and Inner City 2 also rejected applications despite holding available capacity. Five years after academisation, Urban 2 received 205 applications for 150 places. The Admissions team rejected 117 applications leaving capacity 61% filled. 115 of the rejected applicants lived

	within one mile. Despite holding 39% available capacity, it generated £4.8M revenue and retained £0.7M as operating profit, because resources had been found by expanding its service offering. Similarly, Inner City 2 rejected applications after finding resources by expanding its service offering. Five years after academisation, 245 applications were received for 185 places. The Admissions team rejected 169 applications leaving capacity 72% filled. 139 of the rejected applicants lived within one mile which created opportunities to change the market served.

4.4.5 Step 5 – Change management and organisational structure

The next step for schools was to create the right management and organisational structure. Two main changes were made and are outlined below. These changes focused management attention and helped determine where resources were located, which occurred even when poor systems and processes existed. This is because middle managers could work around systems and processes, when the right structures were in place.

1. Centralise back office activities	Each school centralised back office activities to reduce costs. Inner City 2 and Coastal 2 made this change by month three, which increased staff utilisation and decreased overhead and process costs. Middle managers were then made responsible for departmental processes. Inner City 2 non-teaching costs reduced from £2.5M to £1.4M and Coastal 2 non-teaching costs reduced from £3M to £2.9M. Although costs reduced, the new structures did not stabilise or improve teaching processes so Inner City 2 and Coastal 2 recentralised back office activities in month 37. Administrators were consolidated into a single office which created opportunities for functional-based teams to standardise the processes they managed. Processes were mapped to identify which were critical, which added value

	and which could be eliminated. Both schools then implemented process management structures. As a result, the level of paperwork and manpower significantly reduced which released many teachers from administration responsibilities. Senior leaders spent less time completing paperwork and more time stabilising and improving processes. The number of behavioural incidents within Coastal 2 decreased from 975 to 934, the number of fixed term exclusions decreased from 119 to 113 and the number of permanent exclusions decreased from six to four. The stabilisation of behaviour reduced the teaching workload of senior leaders and created opportunities to improve teaching quality; the number of outstanding lessons increased from 26% to 31%. Similarly, the number of behavioural incidents within Inner City 2 decreased from 875 to 764, the number of fixed term exclusions decreased from 152 to 96 and permanent exclusions were eradicated. The stabilisation and improvement of behaviour helped increase the quality of teaching, and the number of outstanding lessons increased from 18% to 20%.
2. Centralise front office activities	Each school centralised front office activities to improve market support. Those serving coastal markets made this investment early to improve external perception and communicate change within the markets they served. Coastal 2 centralised front office activities in month four and created customer teams responsible for understanding market needs. Performance measures were introduced to focus on customer relationships, which were linked to employee rewards and developments. Although aligning these measures with market needs identified areas of poor market support, organisational performance did not improve. Coastal 1 centralised front office activities in month 24 and encouraged staff to spend more time with customers. No impact occurred because it was still reducing the market it

	served. Senior Managers found this surprising, assuming 'what gets measured gets done' and repeated the investment in month 36. Performance only changed when new operating structures were introduced. By comparison, Urban 1 and 2, Inner City 1 and 2, Rural 1 and 2 delayed front office investments until the market they served changed or reduced. Customer teams were then introduced to help build relationships and better understand customer needs, developing new services to meet them. Front office customer service became an order qualifier for these schools, once investments had been made. Urban 1 then introduced customer-specific measures, linked them to employee rewards and developments and introduced face-to face customer meetings to manage quality. New structures enabled senior managers to benchmark these measures and share best practice across departments which further reduced costs. Inner City 1 and 2, Rural 1 and Urban 2 made similar investments within 12 months, which helped build stronger relationships with their customers and adapt activities to their varying needs.

4.4.6 Step 6 – Stabilise teaching process

Once the right structures were in place the next step was to increase teaching capability and the resources used to support it. Two main changes were made and are outlined below. These changes improved student attendance and behaviour and helped create process improvement opportunities.

1. Raise the expectation of student behaviour	Inner City 1 revised its behaviour policy annually to reduce tolerance of poor behaviour over time. As a result, it took four years to stabilise teaching processes. 867 behavioural incidents occurred in year one which resulted in 58 fixed term and five permanent exclusions. 756 behavioural incidents occurred in year two which resulted in 78 fixed term and 8 permanent

exclusions. 674 behavioural incidents occurred in year three which resulted in 84 fixed term and 11 permanent exclusions. 591 behavioural incidents occurred in year four which resulted in 16 fixed term exclusions. No permanent exclusions were required as behaviour had stabilised which provided teachers with an opportunity to improve teaching quality; exam results increased from 33% to 63%. By contrast, Coastal 1 used its second site to separate high and low quality students. The introduction of a behaviour policy in month one reduced tolerance of poor behaviour. The behaviour of high quality students stabilised but the behaviour of low quality students destabilised, which increased the number of behavioural incidents from 1,196 to 1,534. Two months later, a riot occurred containing low quality students. The Board sacked the Principal and introduced a behaviour focused Principal who reduced homework by 50% to increase student satisfaction and stabilise teaching processes. The behaviour of low quality students stabilised, but the behaviour of high quality students destabilised as they were not academically challenged. 49 fixed term and one permanent exclusion occurred. The board then increased homework by 50% to improve exam results. The behaviour of high quality students stabilised but the behaviour of low quality students destabilised. 1,684 behavioural incidents occurred which resulted in 123 fixed term and five permanent exclusions. Despite repeated exclusion, low quality students repeatedly disrupted processes. The board decided to remove these students by building a single site which opened in month 24. Capacity was reduced by 50%. 593 low quality students were not offered places which helped stabilise teaching processes and provided teachers with an opportunity to improve teaching quality; exam results increased from 25% to 29%. Coastal 2 was unable to stabilise teaching processes. Student behaviour investments were made in

	months 2 and 12 but were undermined by poor teacher behaviour. This included the suspension of teachers for sexually explicit behaviour on site. A reputation for inadequate teacher behaviour followed, which meant it could not attract high quality teachers to help stabilise or improve teaching processes.
2. Raise the expectation of teacher behaviour	Coastal 2 introduced an employee standards policy to reduce tolerance of poor behaviour and align rewards and developments with market needs. Whilst some teachers were motivated to make improvements, others were not. Within six months 14 teachers resigned; five teachers and 16 support staff were sacked. The following year, five teachers resigned; five teachers and 12 support staff were sacked. The following year, two teachers resigned; one teacher and eight support staff were sacked. The following year, seven teachers resigned; three teachers and nine support staff were sacked. The following year, three teachers resigned; one teacher and eight support staff were sacked. Redundancy costs during this five year period totaled £4.7M which significantly reduced financial performance. This meant it took 47 months to stabilise teaching processes. Teachers could not improve teaching quality until month 48, at which time outstanding lessons increased from 33% to 43% and inadequate lessons decreased from 15% to 2%. The school then implemented hot housing and 'get ready for learning' strategies which prepared students at the start of each day. Good teachers were allocated to students arriving into Year 11 without secure C grades. Inadequate teachers were allocated to 'good' students. Processes continued to improve and in month 58, OfSTED returned to observe teaching quality and graded the school 'good' with 'outstanding' features.

4.4.7 Step 7 – Improve teaching capability

All schools found that teaching capability did not improve until processes were stable. Once the right structures were in place and processes had been stabilised, three main changes were made to increase capability of the teaching process. These changes are outlined below and improved student performance and increased exam results.

| 1. Introduce a middle management overhead | Rural 1 appointed a tier of middle managers to help manage parents and the pastoral support of students in month one, significantly earlier than the other schools. This overhead investment increased non-teaching costs from £0.4M to £0.6M which reduced operating profit to (£0.8M). As it did not have revenue to support this additional overhead, 75% of new managers were made redundant the following year. Redundancy costs increased non-teaching costs from £0.6M to £0.8M. The Principal introduced cost focused performance measures and linked them to employee rewards and developments; however, operating profit continued to decline. The board then initiated a support staff restructure. 32 support staff were made redundant which reduced costs from £3.3M to £3.1M. However the lack of middle managers and support staff meant parents were not managed. Parents began communicating directly with teachers which increased their administration responsibilities. 12 teachers resigned within 18 months. The school could only afford to replace one teacher because operating profit was (£0.5M). The administration responsibilities of the remaining teachers increased and they were less able to improve teaching quality. Outstanding lessons decreased from 14% to 11% and inadequate lessons increased from 47% to 51%. As a result, the Principal distributed the administration responsibilities of teachers to all employees, which meant teachers had time to improve teaching quality. Outstanding lessons increased from 11% to 28% and inadequate lessons decreased from 51% to 28%. It took four years to find sufficient resources to support overhead investments; |

increased revenue and volume of students led to the reappointment of middle managers in month 60. Similarly, Inner City 2 appointed a tier of middle managers in month two but did not find sufficient resources to support overhead investments until month 29. The middle management tier increased non-teaching costs from £0.5M to £0.9M, which reduced operating profit to (£0.4M). The board initiated an organisational restructure to reduce costs. 20 support staff were removed through capability and 15 were made redundant, which reduced costs from £4.8M to £4.2M. In month 13 the Principal realised that revenue could no longer support the middle management overhead. Two managers were made redundant and the remaining three were given teaching positions, which removed the overhead and reduced costs. By contrast, Urban 1 and 2, Inner City 1, Coastal 1 and 2 and Rural 2 delayed this investment until they had the revenue and volume of students to support it. The middle management tier introduced in month 13 by Urban 1 was particularly important as it grew and developed leadership capabilities. In month 50, two Secondary Vice Principals, the Head of Primary and Associate Vice Principal left to help turn around another school. These four positions were filled by existing middle managers, who helped improve financial performance which created funds to appoint the next generation of middle leaders.

| 2. Attract more motivated students who live further away | Inner City 2 provided free bus travel to a Chinese community located five miles away. The number of Chinese student applications increased exponentially, which changed the student mix. In month 60, it taught a population containing 24% Chinese students. Marketing campaigns were then completed in Dubai, Qatar and Abu-Dhabi to attract parents with second homes in the Middle East. The number of applications from Arabic students increased exponentially, which further changed the student mix. In month 60 the population contained 11% Arabic students. Rural 1 and 2 and Coastal 1 and 2 also used Admissions |

	teams to manage application processes to attract more motivated students who lived further away. However, these investment were affected by access to resources. Limited numbers of high quality students lived in their rural and coastal markets. Rural 1 and 2 and Coastal 1 and 2 struggled to change the markets they served. As a result, each school reduced the number of students it taught. Remaining cohorts were smaller which helped stabilise and improve teaching processes. Rural 1and 2 served rural markets whilst Coastal 1 and 2 served coastal markets and, therefore, had to reduce in size more significantly to create a similar impact. During the five year period, Coastal 1 students decreased from 1,864 to 950, whilst exam results increased from 18% to 42%. Similarly Coastal 2 students decreased from 1,145 to 895, whilst exam results increased from 28% to 50%. Coastal 1 and 2 found it difficult to improve process capability; the markets they served contained high unemployment and significant deprivation.
3. Increase Year 11 teaching salary	Coastal 1 introduced a strategy in month 47 to attract high quality teachers by increasing Year 11 teachers' average pay to £62,000, 28% of its total teaching budget. In month 59, pay increased further to £72,000. Coastal 2 adopted a similar strategy and, in month 36, increased Year 11 pay to £52,000, 37% of its total teaching budget. Higher salaries started to attract higher quality teachers from different markets. However, both schools had difficulty retaining these new teachers due to existing process stability. In month 15, Coastal 1 introduced a code of conduct to ensure appropriate teacher behaviour was modelled to students. It was reintroduced in months 24 and 30, yet no impact occurred. Only when this code of conduct was revised collaboratively with students in month 50 did teaching quality improve. By this time, the market served had been reduced and the amount of low quality students had

	decreased. The remaining cohorts were smaller which increased student motivation for such initiatives. In month 29, Coastal 2 introduced a similar code of conduct, which was reintroduced in month 40. Although this motivated staff to make improvements, performance did not change until new operating structures and processes were introduced.

4.4.8 Step 8 – Improve management and development systems

Once teaching capability had increased, the final step was to improve the management and development systems used. Two main changes occurred. Although these changes did not increase performance, they did create future improvement opportunities.

1. Introduce performance development systems	The introduction of standard performance measures and real-time performance displays developed motivation and capability for identifying and making future improvement. Unlike Rural 1 and 2, Coastal 1 and 2, Urban 1 and 2 and Inner City 1 and 2 appointed the right leaders early, and were able to transfer instincts and knowledge into systems and processes. This resulted in small, frequent changes being made that incrementally improved performance which helped create further motivation and capability.
2. Quality management	Each school trained its employees in problem-solving and quality-control techniques. This investment helped to increase motivation and capability. Mentoring schemes were also implemented. For example, Urban 1 introduced an on-line system to gather 360 feedback at least 6 times per year. Collected information was included within personal development plans. Similar approaches were adopted by the other schools, which helped to incrementally improve performance.

4.5 Market nature affects performance impact

A number of factors affected how quickly and how much performance improved after each investment step was made. These factors are presented graphically in figures 36-39, and then explored in detail.

Figure 36: Markets served by the schools over the five years

Table 1: Inner City and Urban schools: Market share and market size
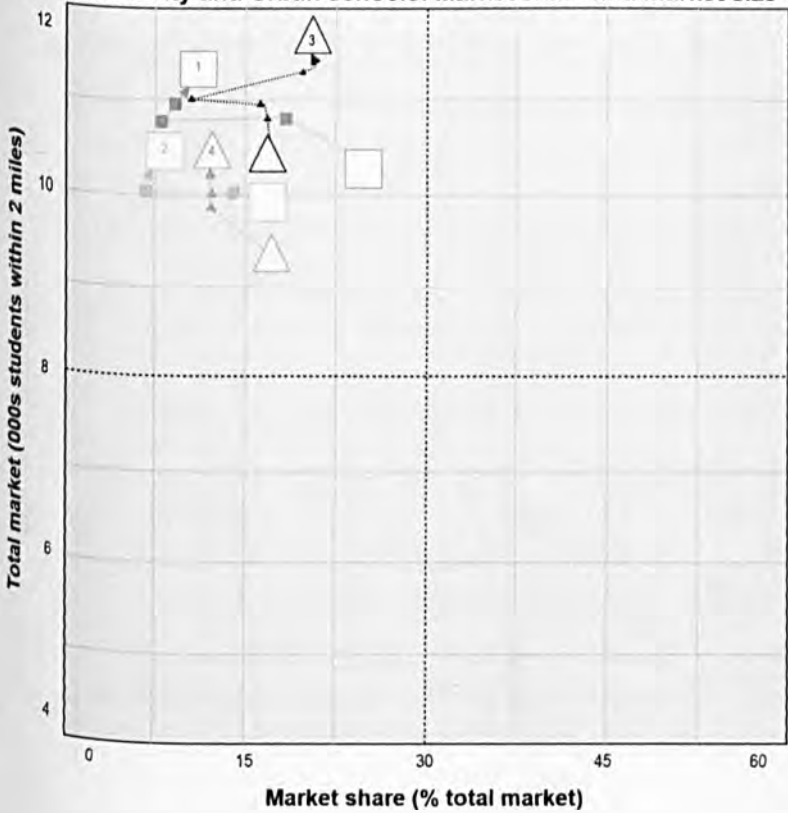
Table 2: Rural and Coastal schools: Market share and market size
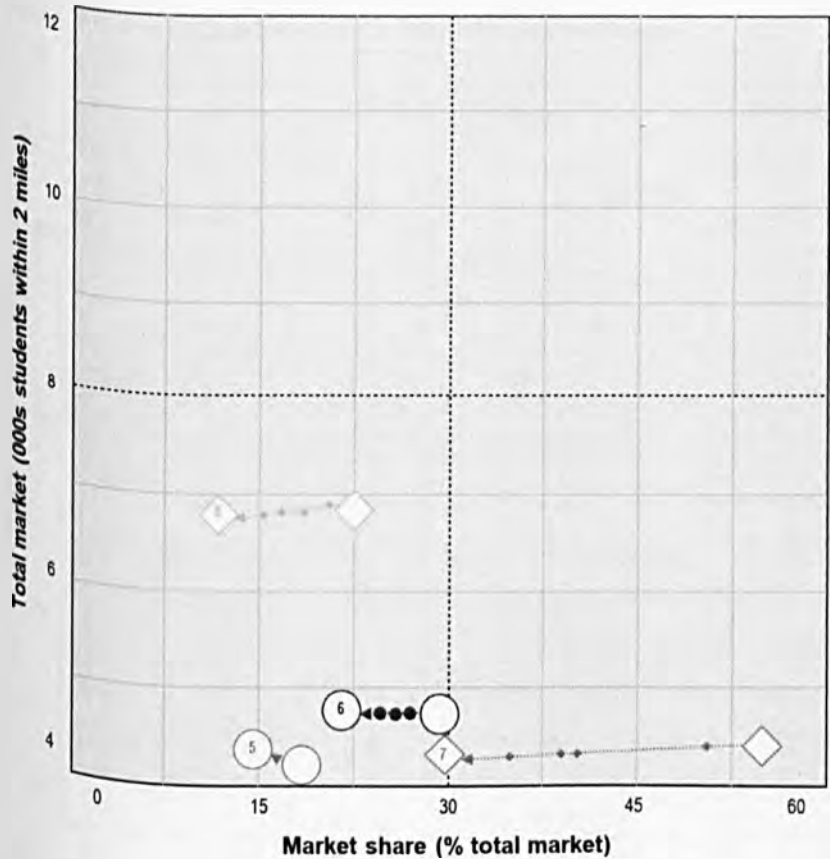
Figure 37: Type of students taught by the schools over the five years

Table 3: Inner city and Urban schools: Ethnicity and motivation

Table 4: Rural and Coastal schools: Ethnicity and motivation

1	Inner City 1 (Case 1)
2	Inner City 2 (Case 2)
3	Urban 1 (Case 3)
4	Urban 2 (Case 4)
5	Rural 1 (Case 5)
6	Rural 1 (Case 6)
7	Coastal 1 (Case 7)
	Coastal 2 (Case 8)
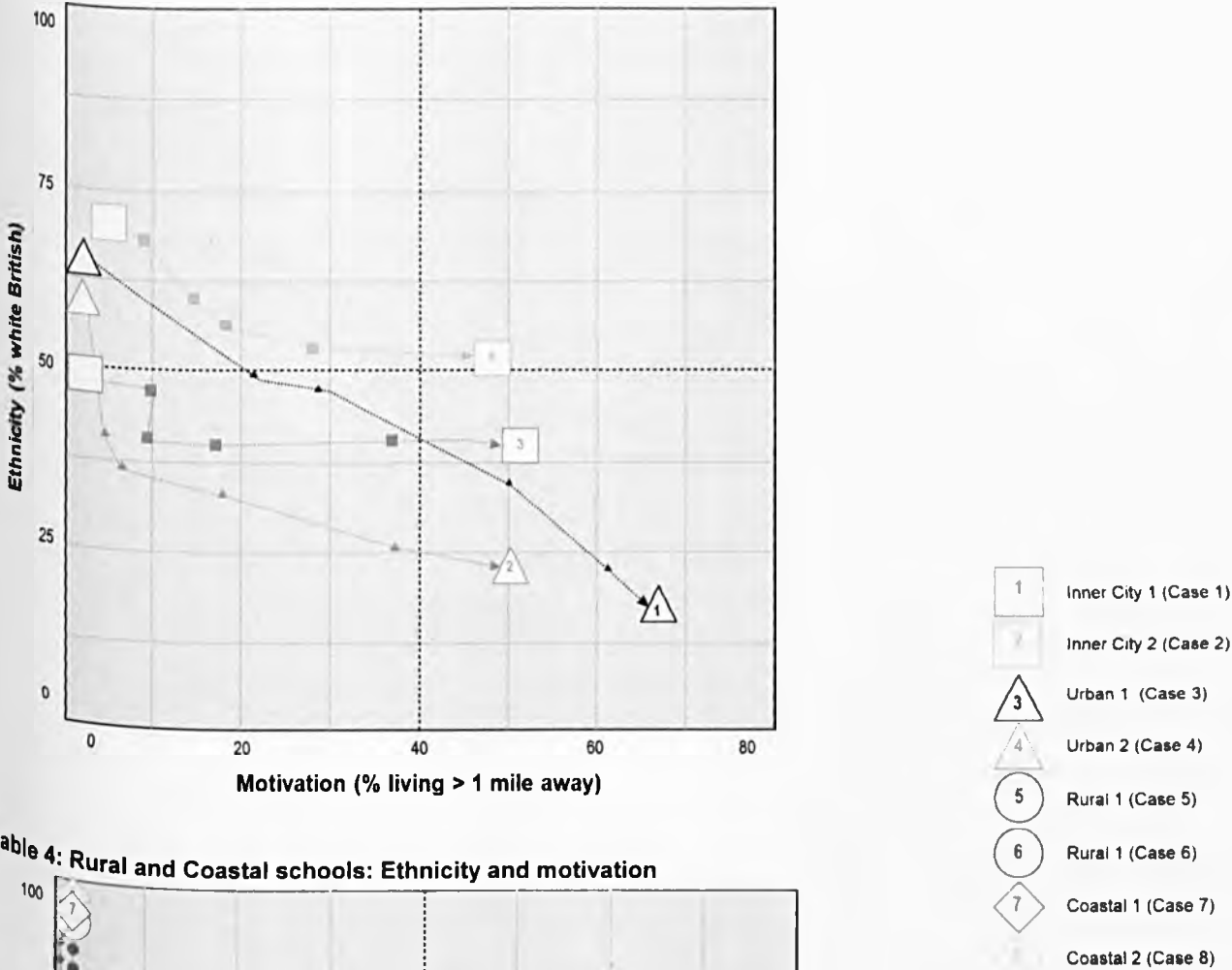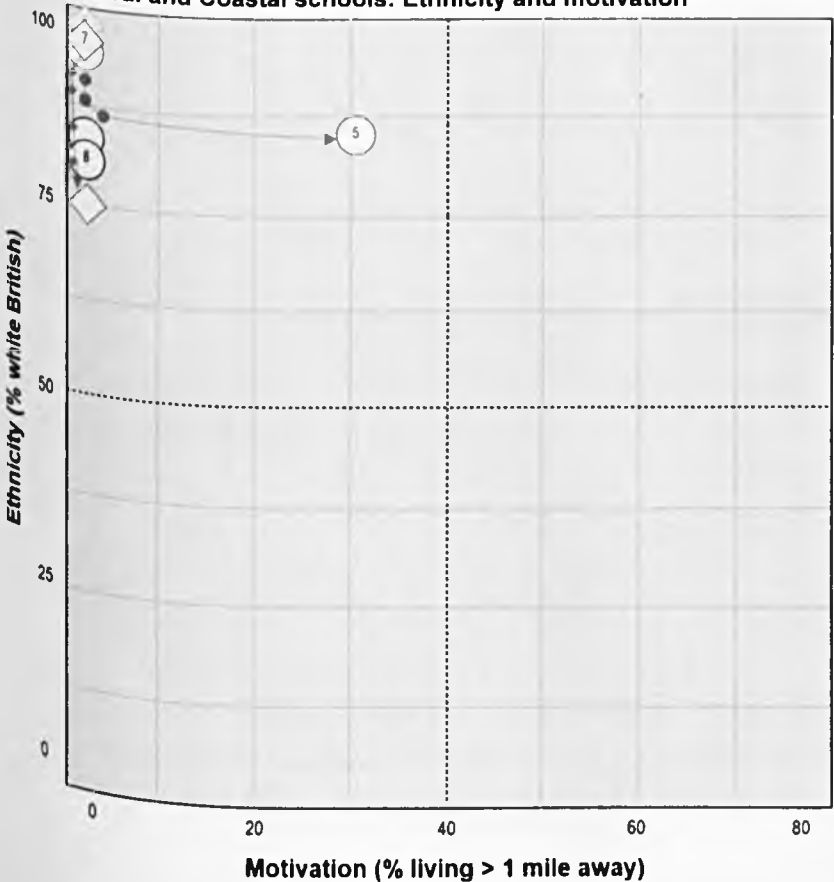
Figure 38: Quantity of students taught by the schools over the five years

Table 5: Inner city and Urban schools: Number and motivation

Table 6: Rural and Coastal schools: Number and motivation

Legend:
- Inner City 1 (Case 1)
- Inner City 2 (Case 2)
- Urban 1 (Case 3)
- Urban 2 (Case 4)
- Rural 1 (Case 5)
- Rural 1 (Case 6)
- Coastal 1 (Case 7)
- Coastal 2 (Case 8)
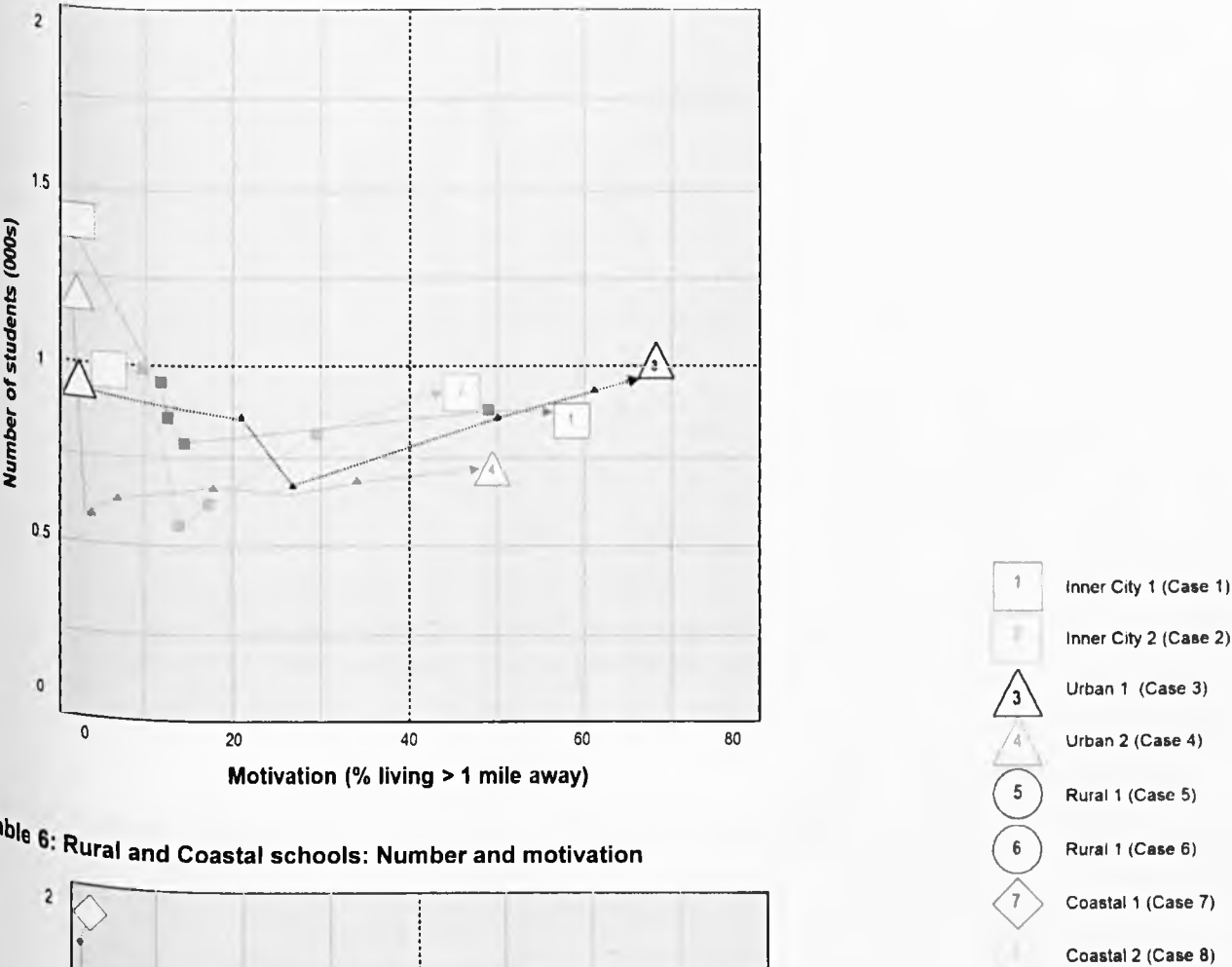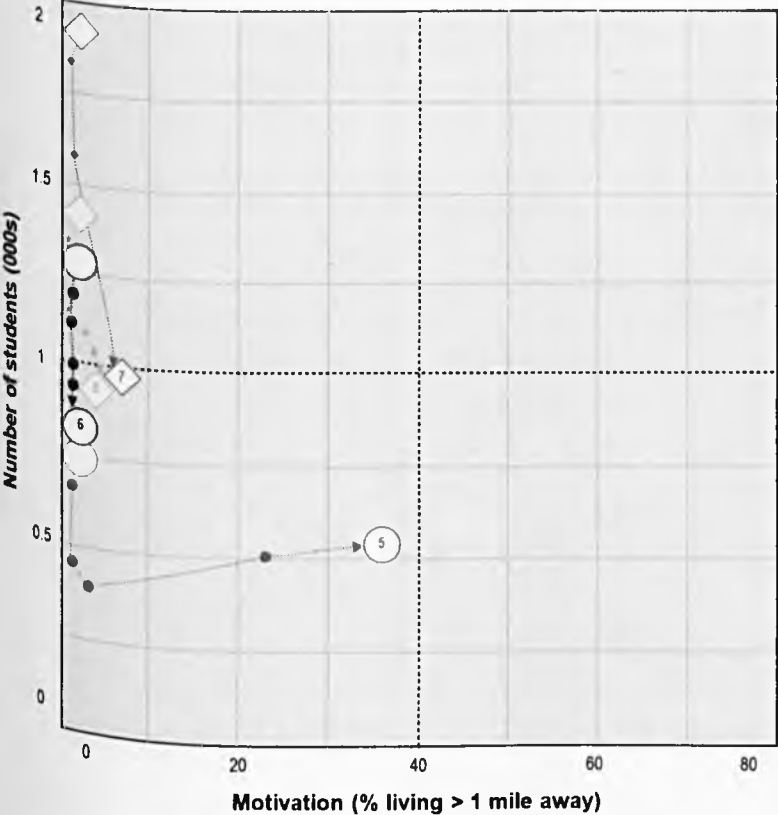
Figure 39: Performance of the schools over the five years

Table 7: Inner city and Urban schools: Operational and financial performance
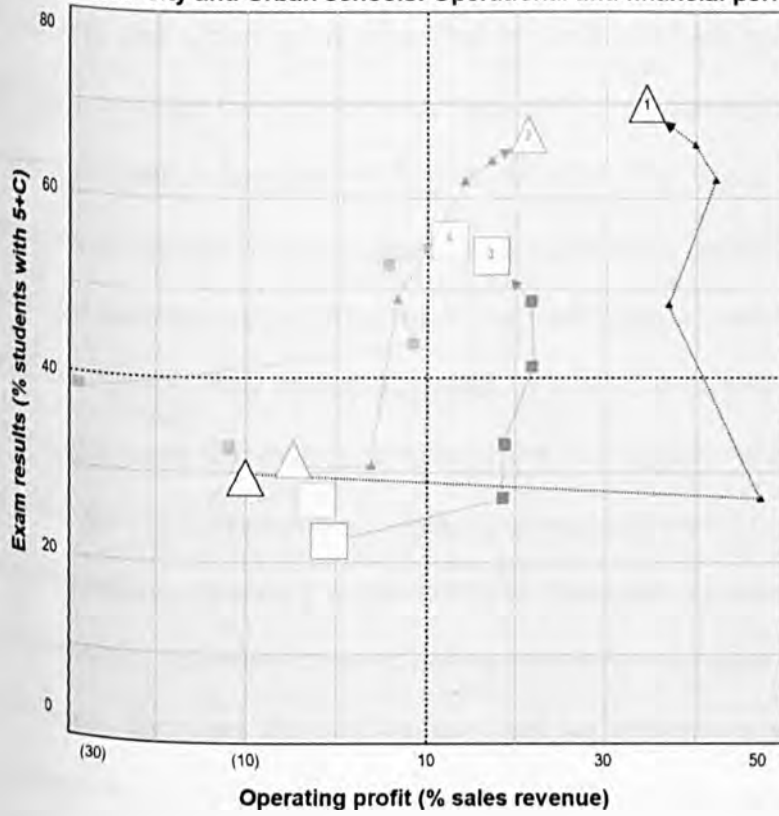
Table 8: Rural and Coastal schools: Operational; and financial performance

135
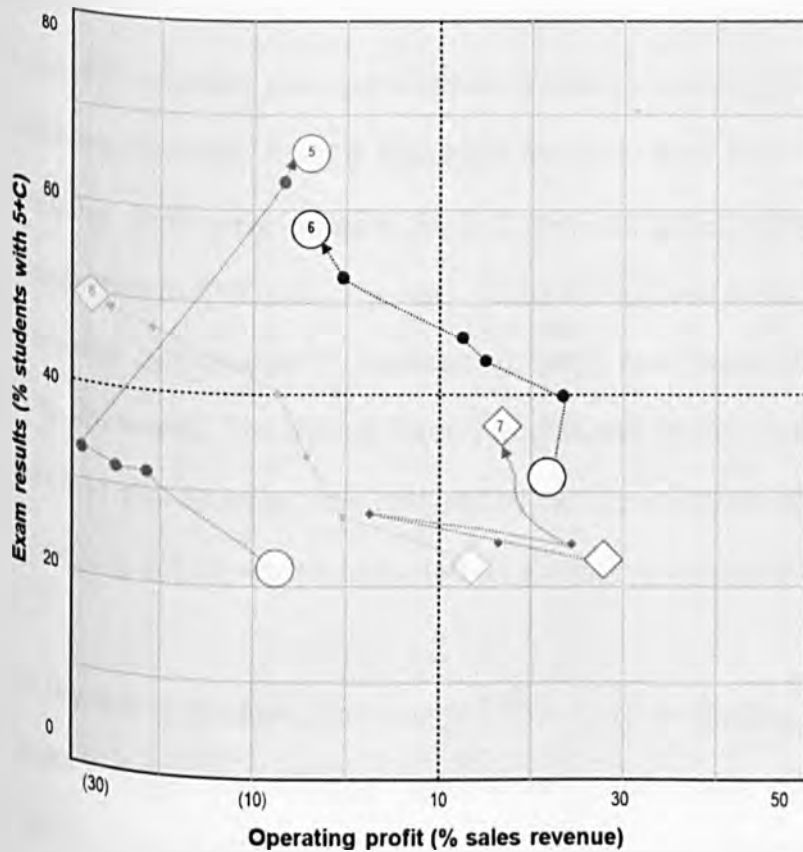
4.5.1 Access to high quality leadership

Inner city and Urban schools had better access to high quality leadership than Rural and Coastal schools, because they offered larger salaries in line with regional pay agreements. These agreements reflect population density and the income level of a region. High-income regions have high teacher salaries whilst low-income regions have low teacher salaries (Debertin and Goetz, 1994). Regional pay agreements made it difficult for Rural 1 and 2 and Coastal 1 and 2 to recruit high quality leadership into the markets they served. However, unlike state schools, academies are not subject to regional pay agreements and employee salaries are not capped. As a result, Rural 1 and 2 and Coastal 1 and 2 were able to increase remuneration packages to attract candidates from external markets. Prior to academisation, Coastal 1 appointed three Principals on coastal pay and conditions. All were sacked. It redesigned its board in month one by recruiting members from the local area. Objectives were not narrowed, decisions did not improve and the board was sacked after Ofsted graded the School 'Inadequate'. A new board were then appointed using employees, as local applicants lacked sufficient quality. Once initiated, the new board launched a national recruitment campaign to appoint a new Principal. In order to attract high quality candidates, the board increased the level of remuneration. A successful candidate was appointed on a salary exceeding £100,000 and reflecting urban pay and conditions. Similarly, Rural 2 appointed two Principals prior to academisation on coastal pay and conditions. Both were sacked. Rural 2 then attracted higher quality applicants after increasing remuneration to £100,000. The new Principal improved focus and decisions, and guided increased operational performance to 'outstanding' within four years. Rural 1 found it difficult to attract high quality leadership. The market it served contained limited infrastructure. Candidates from inner city, urban and coastal areas were deterred by the impact of relocating. Consequently, a Vice Principal of an inner city school was head hunted on a salary exceeding £130,000.

This strategy is common. For example, 50% more employees earn over £80,000 in academies than in state schools. The average Principal salary for a state school is £80,000 and £120,000 for an academy, with 41 Principals paid over £142,500 a year, eight over £170,000 and two over £230,000

(DfE, 2015). Inner City 1 and 2 appointed new Principals on salaries exceeding £150,000, and attracted a large number of quality candidates during the recruitment process. Urban 1 and 2 appointed new Principals on salaries exceeding £100,000. Despite offering £50,000 less than Inner City 1 and 2, Urban 1 and 2 attracted a larger number of quality candidates. This is because urban schools are often located in markets which contain high quality students. This is one reason why urban schools record higher exam results on average than inner city schools (DfE, 2015). A second reason is access to high quality leadership in the form of governance. Both factors are proposed by the Organisation for Economic Development and Co-operation (OECD, 2015) and defined as "urban advantage". Urban advantage exists because urban schools attract students from moderate to high-income sections of major cities. These students often benefit from supportive parents who help raise school standards (Kintrea, 2011). High quality governance was most evident within the urban markets; board members of Urban 1 and 2 included executives from Business Consultancy, Law and the Medical professions. These highly skilled governors transferred knowledge and capability to their boards which focused and improved decision making. By contrast, the rural and coastal schools could not find highly skilled governors. Knowledge and capability transferred to their boards was inadequate. In order to improve focus and decision making Rural 1 and 2 and Coastal 1 and 2 had to use employees and partners.

Proposition 1: Access to high quality leadership improves the ability to appoint new leaders and narrow objectives.

Proposition 2: New leaders increase focus and improve decisions but do not impact operational or financial performance.

4.5.2 Access to high quality students

Each school rebranded and communicated change by using PR and Marketing Teams. The impact of these investments depended on access to high quality students. Urban 1 and 2 and Inner City 1 and 2 had greater access than Rural 1 and 2 and Coastal 1 and 2, due to the location of the markets they served. Inner city and urban markets were not stable and changed over time. Rural and coastal

markets were stable and did not change over time. As a result, the inner city and urban schools experienced two benefits that the rural and coastal schools did not. First, a larger volume of students to select from. Second, an increasing diversity of student mix. Both benefits helped Urban 1 and 2 and Inner City 1 and 2 change the market they served, which stabilised and improved teaching processes by attracting more motivated students who lived further away. For example, the Urban 1 market contained 5,776 students in 2009 which increased to 6,203 in 2014. 314 applications were received for 210 places. The Admissions team were able to change the student mix by rejecting 39 applications; 36 rejected applicants lived within 1 mile. Similarly, the Inner City 1 market contained 6,198 students in 2009 which increased to 6,460 in 2014; 326 applications were received for 290 places. The Admissions team changed the student mix by rejecting 98 applications; 96 rejected applicants lived within 1 mile. A reduction of low performing students created opportunities to offer places to "education-hungry, ambitious migrants" (Turner, 2004), resulting in a "market of high-performing families" (Leunig, 2015) who "encourage their children to achieve." (Dorling, 2012).

A smaller number of high quality students existed in rural and coastal markets. This finding is consistent with Smithers (2015) who suggests "urban and inner city schools perform better than rural and coastal schools because they have a better pupil population." (2015: 2). To improve the quality of students, Rural and Coastal schools reduced the number they taught, using fixed term and permanent exclusions. The remaining cohorts were fewer in number which helped stabilise and improve processes. Rural 1 and 2 served rural markets whilst Coastal 1 and 2 served coastal markets, which contained a higher proportion of White British students. "They [White British] are consistently the lowest-performing group in the country" (Wilshaw, 2015), and, as a result, Coastal 1 and 2 reduced in size most significantly. Coastal 1 decreased from 1,864 to 950 students over five years, which reduced the proportion of White British students from 90% to 73%. Similarly Coastal 2 decreased from 1,145 to 895 students, which reduced the proportion of White British students from 96% to 92%, a predominately working class population. White British students are the most educationally disadvantaged, and according to the DfE (2015), live in demographic pockets of poverty, high unemployment and poor housing. These pockets do not attract migrants and therefore create stable

markets (Hopkins, 2009). By contrast, inner city and urban markets were not stable which helped the non-coastal schools to reduce White British students quickly and replace them with more motivated students who lived further away. Motivated students were often immigrants of Chinese and Asian ethnicity. Dorling (2012) suggests this "immigrant factor" improves inner city and urban schools; new arrivals value education as the route to social mobility. Howland (2014) agrees and suggest inner city and urban schools are vehicles for societal change; whereas rural and coastal are mechanisms for community cohesion. Dorling (2012) highlights London as an example, and comments "it is the most economically deprived and racially mixed UK location but has the highest average exam results." (2014: 3). This view is consistent with the Commons education committee, who conclude White British students are less resilient to the effects of poverty than other ethnic groups, who perform better at school despite similar levels of deprivation. Dorling (2012) finds no link between poor background and low achievement, which is a view supported by international Pisa tests. Dorling (2012) instead proposes a link between poor aspiration and low achievement. "Poor aspiration is particularly acute in coastal markets and is why areas including Suffolk, Norfolk, Kent and Cornwall lag behind the capital in achieving above-average exam results." (2012: 5). The markets served by Coastal 1 and 2 share "features with other fading seaside resorts that have lost much of their tourism – and therefore wealth." (Teachernet, 2008: 5). Their markets remained stable due to a lack of "employment opportunities and the scars of mine closures." (Dorling, 2012: 7). The level of special educational needs and disability were well above the national average; and, geographically, they felt isolated – the railway line ends at the coast (Dorling, 2012: 15). Consequently, access to high quality students was low, which meant it was harder for Coastal 1 and 2 to improve student attendance and behaviour. This finding is consistent with Dorling (2011), who suggests "coastal markets experience a long-standing culture of challenging and disruptive behaviour." (2011: 5). Despite making multiple behaviour investments, Coastal 1 and 2 struggled to stabilise teaching processes, so decreased the number of students taught. This meant both schools reduced the impact of low quality students. Coastal 1 decreased from 1,864 to 950 students and exam results increased from 18% to 42%. Similarly, Coastal 2 decreased from 1,145 to 895 students and exam results increased from 28% to 50%.

Proposition 3: Access to high quality students improves the ability to develop market perception through rebranding and communicating change.

Proposition 4: Developing market perception creates market opportunities by increasing applications.

4.5.3 Potential market size

Each school found resources by expanding service offerings and improving admission processes. The impact of these investments was dependent on potential market size. Urban and Inner city schools had greater potential than Rural and Coastal schools due to the location of the markets they served. Inner city and urban markets experienced "population growth driven by immigration and babies born to non-UK mothers." (Mehmet, 2015: 4). In 2014, 76.1% of inner city births were to non-UK mothers (DfE, 2015). The Department for Education concluded this will increase secondary school population by 17% to 3.2M in 2023, an increase equivalent to 500 new secondary schools. (DfE, 2015). "Clearly the longer the population grows the greater the volume of people living within inner and urban areas." (Mehmet, 2015: 4). For example, the Urban 1 market contained 5,776 students in 2009 and 6,203 in 2014; the Inner City 1 market contained 6,198 students in 2009 and 6,460 in 2014; the Urban 2 market contained 5,293 students in 2009 and 6,000 in 2014; and the Inner City 2 market contained 6,533 students in 2009 and 6,946 in 2014. By contrast, the rural and coastal markets remained stable; only 3.5% of rural births were to non-UK mothers. For example, the Coastal 1 market contained 3,422 students in 2009 and 3,277 in 2014; the Rural 2 market contained 4,601 students and 4,574 in 2014; and the Coastal 2 market contained 6,849 students in 2009 and 6,814 in 2014.

Although the Rural 1 market did increase from 3,947 students in 2009 to 4,598 in 2014, a competitor entered the market in 2010 to 109 students and generated £0.5M revenue. The competitor enrolled 109 students the following year, and every year thereafter.

By opening in stages, student attendance and behaviour did not disrupt its processes; management and organisational structures remained secure. OfSTED visited in 2013 and graded the school 'good' with 'outstanding' features including its non-academic product design. 50 Rural 1 students were attracted following this inspection. As a result, the student population decreased from 486 to 436,

which reduced capacity filled to 36%. The following month, Rural 1 fought back by opening an offsite provision unit using its 64% available capacity. The unit provided competitors with an opportunity to transfer low quality and disruptive students. 27 students were immediately enrolled which generated £0.2M revenue. The unit expanded over time and four years later generated £0.9M revenue, which increased financial performance and helped fund the opening of a primary school in month 58. This had four benefits. Firstly, it increased sales revenue which created funds to invest elsewhere. Secondly, it created an opportunity to centralise back office activities across its primary and secondary schools which reduced costs. Thirdly, it improved the mix of students entering its secondary school. Fourthly, it became aware of market trends and developments earlier; knowledge and resources were then shared between the primary and secondary school.

Similarly, Urban 1 opened a primary school in month 5 to 495 students which increased sales revenue from £2.7M to £6.7M. The market expanded due to an influx of migrant workers which increased demand for student places without exponential increase of supply. "Almost half of applicants [within the urban area] were denied their preferred secondary school owing to pressure on places." (DfE, 2015: 42). This meant parents who lived outside of one mile lowered their order winning criteria. New customers were attracted, which increased operating profit from (£0.2M) to £3.1M, 47% of sales revenue. The expanding market meant Urban 1 could widen its service offering by opening a sixth form which retained existing Year 11 students and improved revenue further. 97 students were retained, which increased to 127 in month 60. Although opening a sixth form did not develop the 'pipeline' of quality further, it did improve the alumni process. Graduates leaving in year 13 to pursue university education returned to support teaching activities on a voluntary basis. This improved the market perception, and this created market opportunities.

Proposition 5: *Potential market size increases the speed by which resources are found and secured.*
Proposition 6: *Expanding a service offering and improving admissions creates investment opportunities by increasing financial performance (sales revenue).*

4.5.4 Access to high quality teachers

141

Each market contained a talent 'pipeline'. Inner City 1 and 2 appointed more graduates than the other schools, because cities have more Universities than urban, rural and coastal regions. The 'talent' pipeline of graduate teachers meant Inner City 1 improved teaching quality quickly, and increased the number of good lessons from 52% to 82% within five years. Similarly, Inner City 2 appointed 'young, enthusiastic and talented teachers' (Dorling, 2011), who improved process capability over time, and increased the number of good lessons from 53% to 83%. However, the number of outstanding lessons did not increase significantly in either school because graduate teachers lacked experience; the average age of teachers in Inner City 1 and 2 was 27. By contrast, the average age of teachers in Urban 1 and 2 was 35. This is because urban schools attract a higher proportion of older, more experienced teachers. This view is consistent with Dorling (2012), who suggests urban schools have better qualified teachers. Graduate teachers, once established in their profession, seek to purchase property and cannot afford to live within inner city areas. Urban areas become increasingly attractive, particularly if these teachers have children and demand value for money property. This talent pull contributes to an 'urban advantage' experienced by urban schools, and helped Urban 1 increase its outstanding lessons from 19% to 23% which improved exam results from 31% to 69%. Similarly, Urban 2 improved teaching quality by appointing experienced teachers from its local area. The number of outstanding lessons increased from 18% to 22%, which improved exam results from 31% to 66%.

By contrast, rural areas have less Universities than inner city, urban or coastal ones. Limited transport infrastructure and low pay and conditions means graduate and experienced teachers do not commute to rural schools. Rural schools are therefore occupied by rural teachers. Without a 'talent' pipeline, Rural 1 for example found it difficult to improve process capability. Although the number of outstanding lessons increased from 22% to 27% over five years, good lessons decreased from 55% to 50%. This meant exam results did not improve as significantly as the urban and inner city schools.

Proposition 7: *Access to high quality teachers creates process improvement opportunities.*

Proposition 8: Excluding poor quality students and improving admissions increases student quality but decreases financial performance (sales revenue).

4.5.5 Size of operation and market served

Each school improved structures by centralising activities and upgrading facilities. The impact on performance depended on the size of operation and market served. With the exception of Rural 1, all schools opened new buildings on single sites, which helped increase student capability and improved facilities. Urban 1 and 2 were able to make these overhead investments early because they had the revenue and volume of students to support them. By contrast it took Inner City 1 and 2 longer to make these investments because it was harder to increase student volume. These schools served inner city markets, which, according to Wenglinsky (1997), are more competitive than urban markets. Although the Inner city and Urban schools each had multiple competitors, market forces were stronger within the inner city markets. Raywid (1998) agrees and suggests "in cities, parents get a larger choice of schools and word quickly gets round that school A is good and school B struggles, which often become a self-fulfilling prophecy and leads to a very socially-segregated system." (1998: 9).

Inner City 1 and 2 competed with five schools one mile away, three schools two miles away and a further three schools four miles away. In total, Inner City 1 competed with 11 schools for 16.2 (000) available students which increased to 17.2 (000) over five years. Similarly, Inner City 2 competed with 11 schools for 15.5 available students (000) which increased to 17.5 (000) over five years. In contrast, Urban 1 and 2 competed with eight schools, of which three were located within one mile. This meant investments impacted market share relative to competitors more quickly. Urban 1 competed for 16.2 available students (000) which increased to 17.0 (000) over five years. Similarly, Urban 2 competed for 13.1 available students (000) which increased to 14.8 (000) over five years. By contrast, the markets served by Rural and Coastal schools did not grow significantly. Rural 1 served a rural market which contained 4.1 (000) students. This small market meant it was harder to find revenue and the volume of students to support overhead investments. As a result, Rural 1 was unable to open a new building, and it took four years to find resources to support overhead investments. By the time

resources were found, a competitor had entered the market and opened a site one mile away. 50 students were immediately attracted, which decreased the number of Rural 1 students from 486 to 436 and reduced capacity filled to 36%. Although the market did increase marginally, Rural 1 found it difficult to compete with five schools. As a result, the size of its operation did not increase significantly over time.

Coastal 1 faced similar challenges; it competed with five schools for 5.2 (000) available students which decreased to 4.8 (000) over five years. Similarly, Coastal 2 competed with five schools for 6.9 (000) available students which decreased to 6.8 (000) over five years. Whilst each market contained a high volume of students per school, it was difficult to attract high quality students. Therefore, to significantly improve the quality of students, Coastal 1 and 2 reduced the number they taught. Revenue declined until each school appointed a Corporate Events Officer to develop non-teaching revenue, and new markets were found to increase student volume.

Each school experienced this challenge on their performance journey: revenue declined when investments to improve student quality were made. This included excluding poor quality students, making overhead investments, improving admissions and increasing Year 11 teachers' salary. Schools which found sufficient resources before making these investments were able to ride out the subsequent revenue decline, and build it back by developing non-teaching revenue and entering new markets. Despite operating in an inner city market, Inner City 2 did not find sufficient resources before making overhead investments. A middle management tier was introduced in month 2, which increased non-teaching costs from £0.5M to £0.9M and reduced operating profit to (£0.4M). The board initiated a restructure to decrease costs, but did not want to reduce teaching capability so targeted support staff. 20 support staff were removed through capability and 15 were made redundant, which reduced costs from £4.8M to £4.2M. In month 13, the Principal realised that revenue could no longer support the middle management overhead. Two managers were made redundant, and the remaining three were given teaching positions which removed the overhead and reduced costs. The school then appointed a Corporate Events Officer to develop non-teaching revenue.

Proposition 9: Centralising activities improves structures by reducing costs, and improving facilities increases customer attraction to non-academic product designs.

Proposition 10: The size of operation and market served impacts the speed by which resources are found.

4.5.6 Existing structures and student quality

Each school improved student attendance and behaviour by stabilising teaching processes, but could not improve teaching processes until the right structures were in place. Structures were then used to focus management attention (management structures) and determine where resources were located (level of centralisation). This occurred even when a school had poor systems and processes, as middle managers were able to work around them when the right structures were in place. Student attendance and behaviour improved using fixed term and permanent exclusions. The number and type of exclusion depended on existing structures and student quality. A smaller number of high quality students existed in the rural and coastal markets, and, consequently, the Rural and Coastal schools used exclusions more frequently than the Urban and Inner City schools. At the end of the five year period, Rural 1 used 291 fixed term and 27 permanent exclusions, Coastal 1 used 382 fixed term and 29 permanent exclusions, Rural 2 used 407 fixed term and 7 permanent exclusions and Coastal 2 used 518 fixed term and 17 permanent exclusions. The remaining cohorts were smaller which helped stabilise and improve teaching processes. Rural 1 and 2 served rural markets whilst Coastal 1 and 2 served homogeneous coastal markets containing a high proportion of White British students. These students repeatedly disrupted teaching processes, which, according to Boyd and Immegart (1977), was because a lack of different ethnicities restricts educational and sociological development. As a result, Coastal 1 and 2 used exclusions more frequently than the other schools; Coastal 1 reduced its proportion of White British students from 90% to 73% and Coastal 2 from 96% to 92%. Once these low quality students were removed, processes stabilised and the schools appointed Vice Principals to improve their teaching process and the management and development systems used. Management consultants were used to support these improvements, which included interviews with remaining students to set goals and standards of behaviour, after-school intervention classes and learning incentives linked to student events. Stricter rules followed which included a zero tolerance

behaviour policy: disrespecting teachers, disrupting lessons and using mobile phones all met with immediate consequences. This improved behaviour further; school 4 exam results increased from 18% to 42% and school 8's from 28% to 50%.

By contrast, the Urban and Inner City schools were able to stabilise processes quickly. Each school attracted new students who were more motivated, and improved attendance and behaviour immediately, without the need for consultants. As each school attracted more motivated students from further away, it developed an understanding of the changing needs of customers. Analysis of winning and retaining customers inside and outside of one mile reflects this change over time. For example, the key order-winner of Inner City 1 in month one was location (62%). By month 60, location had reduced to 23% because non-academic product design was more important (28%). The 754 customers living outside of one mile were attracted by the new site which included professional floodlit football, netball and hockey pitches. Students attracted by these developments were more motivated and helped improve process stability. Similarly, the key order-winner of Urban 1 in month one was location (62%). By month 60, location had reduced to 30% because academic product design was more important (56%). The 1,023 customers living outside of one mile were attracted by the 'all through' product design. By contrast, the 512 customers living inside one mile remained location focused (61%).

Proposition 11: *Existing structures and student quality increase the impact of attendance and behaviour investments on process stability.*

Proposition 12: *Attendance and behaviour investments help to stabilise teaching processes but do not increase operational (exam results) or financial (revenue) performance.*

4.5.7 Existing process stability

Each school made process capability investments which improved teaching quality. The impact of these investments on exam results was dependent on existing process stability. Rural and Coastal schools found it difficult to improve process capability; the markets they served contained high unemployment and significant deprivation. This finding is consistent with Keddie (2015), who

suggests coastal markets have limited access to high quality teachers. "You are trying to attract good and outstanding teachers but what employment is there for a spouse?" (2015: 2). As a result, Coastal 1 introduced a strategy in month 47 to attract high quality teachers by increasing Year 11 teachers' average pay to £62,000, 28% of its total teaching budget. In month 59, pay increased further to £72,000. Coastal 2 adopted a similar strategy and in month 36 increased Year 11 pay to £52,000, 37% of its total teaching budget. Higher salaries started to attract higher quality teachers from different markets. However, both schools had difficulty retaining these new teachers due to existing process stability. In month 15, Coastal 1 introduced a code of conduct to ensure appropriate teacher behaviour was modelled to students. It was reintroduced in months 24 and 30 yet no impact occurred. Only when this code of conduct was revised collaboratively with students in month 50 did teaching quality improve. By this time the market served had been reduced and the amount of low quality students had decreased. The remaining cohorts were smaller which increased student motivation for such initiatives. In month 29, Coastal 2 introduced a similar code of conduct, which was reintroduced in month 40. Although this motivated staff to make improvements, performance did not change until new operating structures and processes were introduced. Senior managers were surprised by this finding and invested significant resources to develop, negotiate and implement new teacher contracts hoping that this would improve performance. No impact occurred and two teachers were later suspended for sexually explicit behaviour on site, whilst two others were suspended for sending sexually explicit photos over the network. Five new teachers graded 'outstanding' immediately resigned, highlighting a significant retention problem. Between 2004 and 2014, Coastal 1 lost 31 teachers and 92 support staff through natural attrition, whilst Coastal 2 8 lost 51 teachers and two support staff. Analysis of exit interviews highlights disrupted teaching processes as the most significant reason for leaving Coastal 1 (89%) and 2 (92%).

Proposition 13: Existing process stability increases the impact of improving teaching capability on operational performance (exam results).

Proposition 14: Improving process capability increases operational performance (exam results).

4.5.8 Existing structures and processes

Each school improved management and development systems, which had incremental rather than step change effects. Although these investments did not increase performance, they did create future improvement opportunities. The introduction of standard performance measures and real-time displays occurred in Coastal 1 during month 16 and in Coastal 2 during month 15. These investments did not create impact because both schools were yet to stabilise processes. A lack of existing structures and processes in schools 4 and 8 meant existing student quality was low. To improve process capability, Coastal 1 made behaviour investments in months 1, 14 and 25. Coastal 2 made similar investments in months 2 and 12. However, these investments were destabilised by poor teacher behaviour. Significant costs were incurred as both schools introduced new structures and processes to remove disruptive teachers through capability. Within five years, Coastal 1 had sacked 31 teachers and 13 support staff at a cost of £3.1M. School 8 sacked 15 teachers and 53 support staff at a cost of £4.1M. Once structures and processes were secured in month 31, Coastal 2 re-introduced standard performance measures and real-time displays. Coastal 1 followed in month 32. These investments created future improvement opportunities because structures and processes had been stabilised.

By contrast, the other schools did not improve management and development systems until structures and processes were stable. It took between 28 and 38 months for these investments to occur. Once introduced, these systems stabilised previous investments and helped create a motivation and capability for identifying and making future improvements. This resulted in small, frequent changes being made that incrementally improved performance including 1) developing teamwork and middle management capability, 2) introducing 360 feedback, 3) mentoring and coaching. Each school also trained employees in quality improvement tools and techniques, which helped create further motivation and capability.

The identification of improvement occurred quickly within inner city and urban schools, who had better access to high quality leadership than coastal and rural schools. This was due to pay and conditions, and location. Inner city schools attracted candidates using pay. Urban schools attracted candidates using location. Coastal schools were unable to attract candidates of sufficient quality using location,

so improved pay and conditions. Rural schools were unable to attract candidates of sufficient quality using location, pay or conditions. Instead, high quality leadership in the form of management and governance was headhunted from external markets. This meant it took longer for coastal and rural schools to improve focus and decisions. Poor recruitment decisions occurred and leaders were frequently sacked. As a result, Rural 1 and 2 and Coastal 1 and 2 struggled to transfer leadership instincts and knowledge into systems and processes. By contrast, Urban 1 and 2 and Inner City 1 and 2 appointed leaders early, and were able to transfer instincts and knowledge into systems and processes. This included developing senior leader capability through coaching, which occurred in Urban 1 within months 40 and 48; Inner City 1 within month 12; Urban 2 within month 25; and Inner City 2 within month 52. These investments were particularly important for Urban 1 and 2 because their senior managers were later seconded to help turn around the performance of other schools. Management deficit was prevented by two factors. Firstly, investments made during the five year period had been stabilised. Secondly the knowledge, instincts and experience of existing leaders had been embedded into systems and processes.

Proposition 15: Management and development system investments do not improve operational (exam results) or financial (revenue) performance, but do create future improvement opportunities.

Proposition 16: The impact of future improvement opportunities on operational (exam results) and financial (revenue) performance is dependent on existing structures and processes.

5. Discussion

5.1 Introduction to Chapter

This chapter discusses the findings presented in the previous chapters and compares them with existing literature. In doing so, eight themes emerge. These themes are analysed in detail and developed into a framework to help practitioners better understand where to make investments within their service organisation, given their performance objectives and the speed at which they need to improve performance. As a result, a number of contributions are made. These contributions concern three areas; firstly, the schools studied, secondly, schools in general and thirdly, service organisations. These contributions are now explored in this chapter, which is structured into four main sections:

1. Comparison with existing literature – empirical findings that emerged from the research are compared with existing literature.

2. Development of management framework - the next section presents a framework to help practitioners better understand where to make investments within their organisations, given their performance objectives and how quickly they need to improve performance.

3. Contribution of the findings – then, the framework is applied to the schools studied to demonstrate contribution. By doing so, it demonstrates where resources were wasted, why certain investments did not create an impact and how improvements could have occurred more quickly with less resources. This process also helps to identify contributions for schools in general and for service organisations with a similar role in society, such as healthcare, and those trying to provide a public service in different markets, such as transport.

4. Summary and conclusions - finally, key points from the chapter section are identified and summarised.

5.2 Comparison with existing literature

This section compares empirical findings that have emerged from the research with existing literature. It begins by highlighting the consistencies and inconsistencies which, in turn, helps to develop the theories and ideas that are presented. In doing so, the research draws on sources including existing literature on service operations strategy and a range of non-management literature. As Eisenhardt (1989: 544) notes, "an essential feature of theory building is comparison of the emergent concepts, theory or hypotheses with extant literature. This involves asking what is it similar to, what does it contradict, and why." The findings have been outlined in the previous sections of the chapter and concern two areas:

- The impact of investment on business performance over time
- The variance of this relationship in markets with different needs

Eight themes emerged when comparing empirical findings from the research with existing literature. These themes are discussed below and are supported by insights from Education, Geography, HRM, IT and Service Operations strategy journals. These insights are required because previous management studies have only looked at one type of investment and have not understood how its impact changes over time. No management studies have investigated the direct or collective impact of investment on competitiveness. Few management studies have investigated the direct impact of investment on performance. Management studies which do investigate the direct impact conclude mixed results and focus on single areas of investment. Therefore, a range of such insights help highlight consistencies and inconsistencies of the empirical findings and, in doing so, further develop the theories and ideas identified.

5.2.1 Improve leadership and objectives

The first step was to develop high quality leadership. The findings suggest that access to high quality leadership improves the ability to appoint new leaders. Earley (2013) argues that new "leaders

improve performance of an organisation." (2013: 4). Whilst each case appointed new leaders and narrowed objectives, these leaders did not impact operational or financial performance. Although this view contrasts Leithwood and Seashore-Louis (2012) and Earley (2013), it is shared by Kruger and Scheerens (2012) who comment "there is little consensus concerning what leadership is, what it compromises" (2012: 1) or how it impacts performance. This view is supported by Cranston (2013) who suggests that organisational improvement is driven by a need to raise standards over time. As a result "standards-based agendas, enhanced centralised accountability systems and narrowly defined objectives" (2013: 131) benefit the performance organisations. This research agrees and concludes that high quality leadership helps narrow objectives, increase focus and improve decisions. Whilst these three benefits do not impact financial or operational performance, they do create a climate for future investments. Hence, improving leadership was the first step in each performance journey.

5.2.2 Improve market perception

The next step for schools was to increase market perception. Richardson and Denton (1996) advise "a full disclosure and honest discussion about change" (1996: 1), when beginning a performance journey. This research agrees; each case rebranded and communicated change by hiring PR and Marketing Teams to improve perception and create market opportunities. Semeltzer (1991) supports this finding and proposes that communication channels improve market perception and build motivation for future improvements. The schools which served markets containing high quality students improved market perception within three months and increased customer applications within six months. By contrast, schools with limited access to high quality students took longer to improve market perception and had to repeat several investments. For example Rural 2 created advertisements for local buses and radio in months 12, 24, 36 and 48. It could not make further communication investments until supporting revenue had been secured. Therefore the next step was to find and secure resources.

5.2.3 Find resources

Schools which expanded a service offering increased financial performance (sales revenue) most significantly. The most common method of expansion was vertical integration into primary and sixth form provision. This finding is consistent with Rothaermel, Hitt and Jobe (2006) who conclude that vertical integration "contributes to competitive advantage and thus to overall firm performance." (2006: 1). This research agrees; opening a primary school created resources, helped to fund future investments and enabled managers to control the 'pipeline' of quality. Opening a sixth form helped retain existing customers which reduced the need to attract new customers; existing customers were retained for two additional years (Year 12 – 13) which increased financial performance. Sixth form provision also helped develop alumni processes. This finding is consistent with Castleman (2007) who suggests that "education institutions should develop an alumni process' to sustain performance by attaining the outcomes of continuous professional development." (2007: 1). D'Aveni and Ravenscraft (1994) agree and propose that vertical integration helps firms to achieve superior performance. Zahay and Griffin (2004) support this finding and conclude managing the pipeline of raw materials (students) through vertical integration helps a firm to interact synergistically.

5.2.4 Improve student quality

The next step required using these interactions to increase student quality and create process improvement opportunities. Rummler (1995) suggests that high-performing organisations "analyse, redesign and improve the processes they manage." (1995: 5). This research agrees. Inner City 1, for example, used an Admissions team to reject 98 of 290 applications. 96 of the rejected applicants lived within one mile which created opportunities to change the market served. This change helped stabilise teaching processes by attracting more motivated students who lived further away. Rural 1 and 2 and Coastal 1 and 2 reduced the number of students they taught, using fixed term and permanent exclusions. The remaining cohorts were fewer in number which helped stabilise processes. Keating et al. (1999) suggest that improvement of processes can "reduce business performance." (1999: 1). This view is consistent with Gebauer (2005) and is defined by Keating et al. (1999) as the

'Improvement Paradox'. Whilst this research agrees that stabilising and improving processes reduces financial performance (sales revenue), an explanation is provided; revenue declines when investments to improve student quality are made. This includes excluding poor quality students, making overhead investments, improving admissions and increasing Year 11 teacher salaries. Whilst the operational performance of each case increased as a result of improved processes, financial performance decreased. Schools which found sufficient resources before making these investments were able to ride the subsequent revenue decline and build it back by developing non-teaching revenue. This finding highlights the importance of finding and securing resources early, a view consistent with Dehning, Richardson and Zmud (2007).

5.2.5 Change management and organisational structure

Schools which found resources early were able to improve structures by centralising activities and upgrading facilities. This research suggests that centralising activities reduces costs, and improving facilities increases revenue by attracting customers. Both investments were used to focus management attention and determine where resources were located. This occurred even when a case had poor systems and processes, as middle managers were able to work around them when the right structures were in place. This finding is consistent with Heeks (1999) who outlines four benefits of centralising activities. Firstly, sharing resources. "A well-planned centralised system holds data in one place allowing all staff to access it." (Heeks, 1999: 5). Knight and Silk (1990) agree and suggest this makes it both faster and easier to undertake organisation-wide activities. Secondly, avoidance of duplication. "Centralised approaches have a single version of information. As a result, there is no wasted effort, no wasted storage capacity, and no inconsistency of data." (Heeks, 1999: 5). This finding is consistent with Kaplan and Norton (1992). Chenhall and Langfield-Smith (2007) agree and conclude the management's attention is focused by centralised activities which enables them to benchmark performance to resulting overhead and process costs. This leads to the third benefit proposed by Heeks (1999): learning and control. Centralising "systems provides an organisational focus for learning and for control...and produces higher quality information systems." (Heeks, 1999: 5). This research agrees. Managers used such systems to become aware of market

trends and developments earlier and knowledge and resources were shared between departments and facilities. The fourth benefit proposed by Heeks (1999) is achievement of scale economies. "Centralised approaches allow activities to be undertaken more cheaply." (Heeks, 1999: 5). This research agrees. Each case was able to reduce costs by centralising activities, though the cost reduction depended on the size of operation and market served. Both factors impacted the speed by which resources were found.

5.2.6 Stabilise teaching process

Schools which reduced costs were then able to find resources to make attendance and behaviour investments. These investments helped stabilise teaching processesand included fixed term and permanent exclusions. According to West (2010) "even a small handful of poorly-behaved children ruin lessons and disrupt the teaching of their peers by absorbing teachers' time and ruining the flow of the lesson. It is simply not fair that children should have to put up with being taught alongside children who turn up to school intent on holding back the rest of the class." (2010: 1). This research concludes that access to high quality students increases the speed by which teaching processes are stabilised, using behaviour and attendance investments. However, no school could improve teaching processes until the right structures were in place. This finding is consistent with Miles and Huberman (1984: 2) who suggest that structures define the "product-market domains (strategy) and construct mechanisms (processes)."

5.2.7 Improve teaching capability

The next step was to improve teaching processes. The impact of these investments on exam results was dependent on existing process stability. Urban 1 and 2 and Inner City 1 and 2 were more stable than Rural 1 and 2 and Coastal 1 and 2, due to the location of markets they served. The pipeline of graduate teachers meant Inner City 1 and 2 improved 'good' teaching quickly, and the pipeline of experienced teachers meant Urban 1 and 2 improved 'outstanding' teaching quickly. By contrast, the Rural and Coastal schools served markets with low access to high quality resources. As a result, each school had to create future improvement opportunities by developing talent pipeline lines to

155

attract high quality teachers and high quality students. Teachers were attracted by increasing Year 11 teachers' average pay, and students were attracted by differentiating the service provision. In addition, Rural 1 and 2 and Coastal 1 and 2 reduced the number of low quality students they taught. The remaining cohorts were smaller in number which increased the motivation of high quality students and created opportunities for teachers to improve process capability. The DfE (2015) agrees and suggests that "schools need to make the most of teachers' talents…an excellent teacher can deliver the equivalent of 1.5 years learning in a year, whereas a poor teacher contributes just half a year: the difference is a whole year of a child's education." (DfE: 4). This research agrees and concludes that improving process capability increases operational performance (exam results).

5.2.8 Improve management and development systems

The final step was to stabilise previous investments by improving management and development systems. Although these changes did not increase performance, they did create future improvement opportunities. Otley (1999) agrees, and suggests that improving systems helps organisations "relate to objectives, strategies and plans for their attainment, target-setting, incentive and reward structures and information feedback loops." (1999: 2). The introduction of standard performance measures and real-time performance displays developed motivation and capability for identifying and making future improvements. This finding is consistent with Lepkowska (2013) who proposes that "teacher performance in the classroom should be judged on the impact they have on exam and test results over time." (2013: 1). Kaplan and Norton (1992) Chenhall and Langfield-Smith (2007) agree and suggest that systems investments help measure the performance, rewards and development of leaders. Unlike the Rural and Coastal Schools, Urban 1 and 2 and Inner City 1 and 2 appointed the right leaders early and were able to transfer instincts and knowledge into systems and processes. This resulted in small, frequent changes being made that incrementally improved performance which helped create further motivation and capability. 16 propositions were identified in chapter 4, and are now outlined in figure 40. Each proposition is linked to a theme and is supported by existing literature on service operations strategy and non-management literature, including that of Education and

Geography. Multiple insights help to highlight consistencies and inconsistencies of the empirical findings, and in doing so, further develop the theories and ideas identified.

Figure 40: Propositions supported by existing literature

Proposition	Supporting literature	Research focus	Context (Journal type)
Leadership and objectives			
1 Access to high quality leadership improves the ability to appoint new leaders and narrows objectives.	Kruger and Scheerens (2012)	Longitudinal study using different methodological approaches which analyse school leaders at work	Education - observation of six academy school Principals
2 New leaders increase focus and improve decisions but do not impact operational or financial performance.	Barber, Wheeler and Clark (2010)	Cross sectional study which investigates how high-performing school systems build leadership capacity	Education – 70 interviews and a survey of 1,850 high-performing school leaders in eight countries
Market perception			
3 Access to high quality students improves the ability to develop market perception through rebranding and communicating change.	Cranston (2013)	Cross sectional study which investigates externals pressures contributing to significant HRM change processes	HRM – observation of government schools in Queensland, Australia
4 Developing market perception creates market opportunities by increasing applications.	Allen and Burgess (2011)	Historic study which examines why school expansion has been determined by local population changes, with little differentiation between high- and low- performing schools	Geography - empirical investigation of changes in the availability of UK school places over 10 years
Resources			
5 Potential market size increases the speed by which resources are found and secured.	Rothaermel, Hitt and Jobe (2006)	Longitudinal study which investigates the effects of balancing vertical integration and strategic outsourcing, and analyses the impact on product portfolio, product success, and firm performance	Supply Chain – statistical analysis of 3,500 product introductions in the global microcomputer industry
6 Expanding a service offering and improving admissions creates investment opportunities by increasing financial performance (sales revenue).	Castleman (2007)	Literature review of SME-eBusiness: insights from analysis of journal articles	Small business - review of 120 SME-eBusiness journal articles published

Student quality

7 Access to high quality teachers creates process improvement opportunities.	Gebauer (2005)	Longitudinal study which investigates factors impacting high quality teaching and learning, described as the politics of Education	Education - observation of government schools in South Africa
8 Excluding poor quality students and improving admissions increases student quality but decreases financial performance (sales revenue).	West (2010)	Longtidudinal study which explores how to train teachers to tackle poor pupil behaviour	Education - observation of government schools in UK

Structures

9 Centralising activities improves structures by reducing costs, and improving facilities and increases customer attraction to non-academic product designs.	Heeks (1999)	Historic study of centralised and decentralised management of Public Information Systems, described as a core-periphery investigation	IT – evaluation of Public sector organisations
10 The size of operation and market served impacts the speed by which resources are found.	Leow and MacLennan (2000)	Literature review which investigates the significance of disaster information management, which identifies the subsequent market challenges	IT - narrative review of secondary literature on disaster information, resource management and the importance of appropriately managing market information

Process stability

11 Existing structures and student quality increases the impact of attendance and behaviour investments on process stability.	Lawrence (2007)	Longitudinal study which explores how to train teachers to tackle poor pupil behaviour	Education - observation of government schools in the UK
12 Attendance and behaviour investments help to stabilise teaching processes but do not increase operational (exam results) or financial (revenue) performance.	Lawrence (2007)	Longitudinal study which explores how to train teachers to tackle poor pupil behaviour	Education - observation of government schools in the UK

Process capability

13 Existing process stability increases the impact of improving teaching capability on operational performance (exam results).	Tucker and Thorne (2009)	Cross section study which explores the influence of prior organisational performance on the use of management control systems (MCS) in NFPs	General management - questionnaire survey and interviews with 182 CEOs and senior executives in Australian not-for-profit (NFP) organisations

14	Improving process capability increases operational performance (exam results).	Chenhall and Langfield-Smith (2007)	Cross sectional study which investigates the effectiveness of different configurational archetypes of strategy to appraise how management's horizontal and vertical alignment can facilitate performance	Supply Chain – empirical examination of 109 manufacturing companies

Systems

15	Management and development system investments do not improve operational (exam results) or financial (revenue) performance but do create future improvement opportunities.	Dehning, Richardson and Zmud (2007).	Longitudinal study investigating corporate, environmental management information systems	IT - statistical analysis of manufacturing systems within German engineering companies
16	The impact of future improvement opportunities on operational (exam results) and financial (revenue) performance is dependent on existing structures and processes.	Loeb, Horng, and Klasik (2010)	Longitudinal study using different methodological approaches which analyse school leaders at work	Education - Observation of 65 academy school Principals

5.3 Development of a management framework

By comparing the empirical findings that emerged with existing literature, eight themes (steps) appeared. This section develops these steps into a framework. The framework presented here identifies that leadership, structure, process and systems' investments impact performance differently over time. As a result, it helps service organisations to better understand where to make investments given their performance objectives and how quickly they need to improve performance. In doing so, it demonstrates how different types of investment (leadership, structure, process and systems) impact business performance (operational, financial and competitive) in service organisations in competing different markets (size, customer type and competition), and consists of five key areas:

1. Investment

Each case made investments in eight main steps. The implementation and sequence of these investments was varied, and investments affecting organisational structure were made multiple times.

159

2. Sequence of investments

Findings identify a common sequencing; schools that followed this sequence improved performance quickly, and schools that did not follow this sequence improved performance slowly and had to repeat some investments. Understanding the sequence is useful for service organisations, as it identifies why impact occurs, the steps to take to turnaround, create or sustain performance, and the benefit of these steps.

3. Benefit

Five investments created opportunities (market opportunity, process improvement opportunity and future improvement opportunity), two increased focus and one improved student performance. However, each benefit had a different impact on performance.

4. Performance impact

Findings conclude that three benefits do not impact performance, two increase operational performance, two increase financial performance and one decreases financial performance. This decrease is important and is defined by Keating et al. (1999) as the `Improvement Paradox'. Each school experienced this challenge on their performance journey; revenue declined when investments to improve student quality were made. Understanding this paradox is important for low and high performing service organisations, as both must find sufficient resources before making process capability investments. These additional resources help to ride the subsequent revenue decline and to build it back by developing new capabilities.

5. Factors affecting impact

Findings identify a number of factors which affected how quickly and how much performance improved after investments were made. These factors include access to resources, the market served and existing structures and processes. Access to resources affects the beginning of a performance journey, existing structures and processes affect the end and the market served affects the speed of the journey.

Figure 41: Performance ladder: investments, benefit, performance impact and factors affecting impact
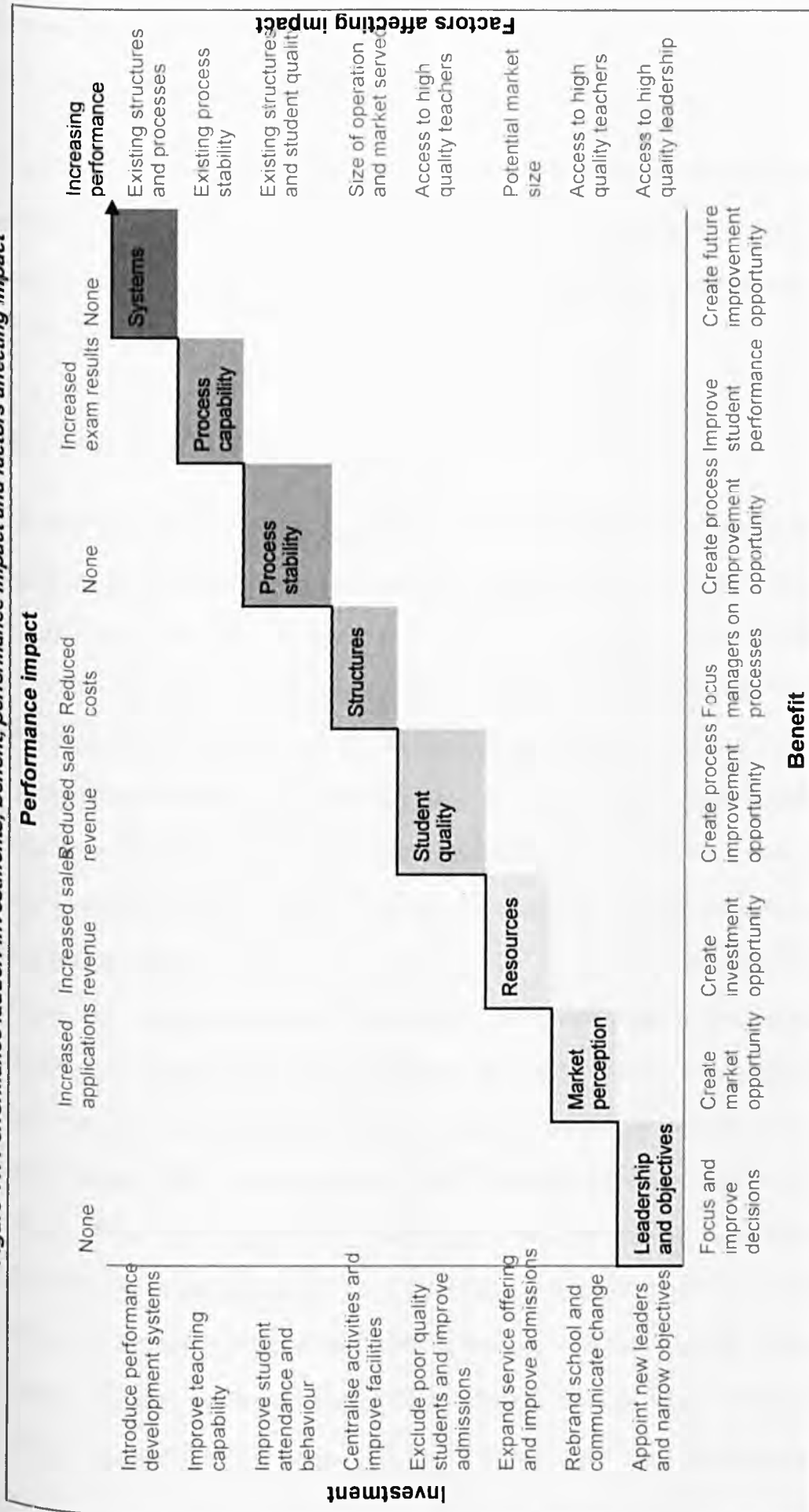
5.4 Contribution of the findings

5.4.1 Contribution to the schools studied

To demonstrate the contribution of the framework presented in figure 41 it is now applied to each case retrospectively. Doing so demonstrates where resources were wasted, why certain investments did not create impact and how improvements could have occurred more quickly with less resources.

5.4.1.1 Inner City 1 - Case 1

Inner City 1 began by changing its governing board and appointed members with significant experience and capability (step 1). As a result, operational and financial performance focus increased. The board then appointed a new Principal to increase decision making (step 1). Next, marketing consultants were appointed to improve market perception (step 2). One month later, the Principal reduced the admissions lead-time by enabling on-line applications. This investment helped to find resources (step 3) and created investment opportunities. By this point, Inner City 1 had progressed through three steps of the framework in the correct order. However, they did not secure sufficient revenue to fund future investments. Instead of fully implementing step 3, they then set up 'houses' for students and staff. This investment changed the management and organisational structures (step 5) and should not have occurred until student quality had first been improved (step 4). Resources were wasted because step 4 of the framework requires significant resources (step 3), as investments to improve student quality reduce revenue. After changing the management and organisational structures, Inner City 1 appointed an Admissions Officer to improve student quality (step 4) and reduce application lead-time. The reduced lead-time meant offers were made faster than those of competitors. Performance started to improve, and exam results increased to 27%. However, revenue decreased to £4.2M because resources were needed to fund this overhead. Management then revised behaviour management systems as a way of stabilising

teaching processes (step 6) and exclusions increased. However, the Principal simultaneously introduced a code of conduct for staff, linked to the capability system, to improve teaching capability (step 7). 22 teachers and 37 support staff were managed out, which significantly increased costs, but teaching quality did not increase because it is not possible to increase capability (step 7) without first implementing step 6. Inner City 1 made both of these investments simultaneously and as a result wasted significant time and resources; processes were neither stabilised nor improved because the right structures were not in place. The Principal then went back to step 4 and spent time changing the management and organisational structures to ensure both were secure. Performance increased as a result, and exam grades improved, because the new structures helped to focus management attention and determine where future resources should be located. This led to the decision to build a new site, which meant managers could begin managing demand. By controlling the 'pipeline' of quality, exam results increased to 48%. Inner City 1 then went back to step 3 and expanded the service offering. This investment increased sales revenue from £4.8M to £5.5M, and helped to fund two Vice Principals to improve the teaching process (step 7) and the management and development systems used (step 8). Performance increased as a result, and exam grades improved to 53% whilst revenue increased to £6.1M. However, these investments could have been made much earlier if sufficient revenue had been secured sooner. As a result. Inner City 1 should be aware of two key insights provided by the framework:

1. **Vertically integrate.** Inner City 1 did not understand the importance of finding and securing resources early and did not expand its service offering until month 48. However, resources would have been secured sooner if this investment had occurred earlier. This delay reduced its financial performance and limited its ability to invest in long term initiatives.

2. **Stabilise processes before improving them.** Inner City 1 tried to improve teaching capability at the same time as processes. Resources were wasted and this investment had no

impact on performance, because processes cannot stabilise or improve until the right structures are in place. The framework will help Inner City 1 to understand that investments must occur sequentially, as the impact of each investment depends on the previous changes made.

5.4.1.2 Inner City 2 - Case 2

Inner City 2 began by changing its governing board and appointed members with significant experience and capability (step 1). Although the board then appointed a new Principal, the existing Principal remained in post till month 13. The board felt this stability would help to increase focus during the transition period. However leadership decisions did not improve and, as a result, objectives were not narrowed; it took 34 months to focus on financial and operational performance. Without these objectives, the wrong performance measures were focused on (for example parental engagement). This led to the introduction of middle managers to engage parents in month two (step 4). This overhead investment was made before resources had been secured (step 3). As a result, costs increased which led to a centralisation of back office activities in month three. These changes of management and organisational structures helped to reduce costs but demotivated employees. Consequently, the teaching workload of senior leaders increased. Resources were wasted and this period of demotivation lasted six months, after which time the Principal hired a PR team to build a new public profile (step 2). By not making this investment in month 1, market perception did not improve and this significantly limited market opportunities for 12 months. Then, senior managers spent time revising the customer journey to reduce the turnaround time of admission procedures. Each functional-based team consolidated and standardised administration processes. As a result, the level of paperwork and manpower used decreased, which reduced costs and secured resources (step 3). These resources helped to reduce the teaching workload of senior managersand fund the reintroduction of middle managers to engage parents. Performance increased as a result, and exam grades improved to

39%. Then, the service offering was expanded (step 3). A sixth form centre (16-19) was opened and A-Level teachers recruited. This investment increased sales revenue, but it would have created significantly more funds if made earlier. Instead, Inner City 2 reported negative financial accounts for 32 months. This lack of financial performance meant it took four years to secure management and organisational structures (step 5). Only then could investments be made to stabilise (step 6) and improve the teaching process (step 7). These investments helped to improve performance and, in July 2013, OfSTED returned and graded the school 'good'. Inner City 2 could have increased performance more quickly by focusing on the right performance measures sooner. By delaying the decision to improve leadership and narrow objectives, many investments were made in the wrong order. The framework suggests that high quality leadership helps to narrow objectives, increase focus and improve decisions. Although these three benefits do not impact financial or operational performance, they do create a climate for future investments. Hence improving leadership should be the first step in a performance journey. As a result. Inner City 2 should be aware of two key insights:

1. **Improve governance and leadership.** If leadership had been improved at the beginning of its performance journey, Inner City 2 would have focused on the right objectives at the right time. Instead, investments were made in the wrong order and this wasted many resources. The framework will help Inner City 2 to understand that improving leadership is the first step of a performance journey; this investment should cause disruption and in doing so, create a significant impact on decision making and objective setting.

2. **Delay overhead investment.** Inner City 2 was very quick to introduce middle managers to help manage parents. However, this overhead investment was made before resources had been secured. As a result, costs increased. Inner City 2 did not have the revenue to support this additional overhead and had to make 75% of these managers redundant in the following year.

5.4.1.3 Urban 1 - Case 3

Inner City 1 began by changing its governing board and appointed members with significant experience and capability (step 1). As a result the focus on operational and financial performance increased. The board then appointed a new Principal (step 1). Marketing consultants were then hired to develop and improve market perception (step 2). One month later, the Principal reduced the admissions lead-time by enabling on-line applications (step 3). Whilst this investment helped to find short term resources, Urban 1 then focused on securing long term resources. This was achieved by acquiring a Primary school in month five, which increased sales revenue from £2.7M to £6.7M. An Admissions Officer was then appointed to improve student quality in the Primary School (step 4) and reduce application lead-time within the Secondary School (step 3). This meant management could control the 'pipeline' of quality. By making the first four steps in the right order, Urban 1 increased performance quickly and wasted few resources. This meant the Principal could spend time changing the management and organisational structures to ensure they were secure (step 5) before improving processes. This included centralising Primary and Secondary back office activities and increasing a tier of middle managers by 50%. By delaying this overhead investment until the revenue and volume of students to support it had been found, there was a significant impact. Performance increased and exam grades improved to 46%. Once these structures were secure, senior managers focused on stabilising the teaching process (step 6). Once these processes were stable, the board appointed two Principals to lead the Primary and Secondary schools and positioned the former Principal as an Executive Principal. Each Principal was tasked with improving teaching capability (step 7) and the management and development systems in use (step 8). Performance increased as a result; exam grades improved to 62% and OfSTED graded the schools 'outstanding' in all categories. Although this helped to develop the market perception (step 2), it meant service developments became more visible to competitors and easier to imitate. Competitors started to fight back. Similar services were developed, such as allowing students to sit GCSEs early. As a result, the competitive advantage of Urban 1 started

to decline. One month later, the Primary and Secondary Vice Principals and the Head of Primary and were seconded to turn around an academy in a coastal area of South East England. Although Urban 1 remained outstanding according to OfSTED, this change of leadership destabilised the organisation. Whilst it is too soon to understand the impact of this change, Urban 1 should be aware of two key insights provided by the framework:

1. **Market nature affects performance impact.** The service developments made by Urban 2 positively impacted performance for a limited time only, because factors including market stability, level of competition and market share affected how quickly and how much performance improved after each investment was made. In view of this, Urban 2 should adopt a strategy for continuous service investment, to keep ahead of competitors.

2. **Improve governance and leadership.** Whilst it is too soon to understand the impact of seconding a number of key leaders, Urban 1 must understand the importance of continuously improving its leadership. This investment to help another academy provides an opportunity to repeat the framework ladder by going back to step 1 and, in doing so, create a climate for future investments.

5.4.1.4 Urban 2 - Case 4

Urban 2 began by changing its governing board, and appointed members with significant experience and capability (step 1). The board then appointed a new Principal (step 1), who hired marketing consultants to improve market perception (step 2). Senior managers then spent time revising the customer journey to reduce the turnaround time of admission procedures (step 3). However, Urban 2 did not open a Primary School. This decision reduced its ability to invest in long term initiates. Instead, Urban 2 focused on mapping internal processes to identify which were critical, which added value and which could be eliminated (step 4). The range of taught subjects was then significantly narrowed to build English teaching capacity and improve teaching capability (step 6). The time for this was found by integrating

subjects of less perceived importance into other areas of the curriculum. However, this investment did not impact performance immediately because teaching processes were unstable. To increase stabilisation of these processes (step 5) Urban 2 provided free bus travel to a nearby Chinese community and completed various marketing campaigns (step 2). These campaigns were also completed in Dubai, Qatar and Abu-Dhabi to attract parents with second homes in the Middle East. These step 2 investments helped to improve the market perception within existing and new markets. By doing this, Urban 2 successfully changed the type of students applying for places. Once this new pipeline was secure, the Principal centralised back office activities and introduced a tier of middle managers. By delaying this overhead investment until the revenue and volume of students to support it had been found, there was a significant impact. Performance increased and exam grades improved to 49%. However, Urban 2 could not increase performance further until resources had been secured. This meant going back to step 3 in month 36 to open a sixth form. This investment helped retain existing customers, which reduced the need to attract new customers; existing customers were retained for two additional years (Year 12 – 13), which increased financial performance and developed alumni processes. Performance increased as a result, and exam grades improved to 63%. This service development created significant 'competitor barriers to entry' as the capability of its delivery system was difficult to imitate. Applications for places increased from students living more than one mile away. Performance continued to improve and in March 2014 OfSTED returned, and gave an 'outstanding' grade. Although this inspection helped to develop market perception (step 2), it meant service developments became more visible to competitors and easier to imitate. Competitors started to fight back. Similar services were developed, such as sixth form provision. As a result, its competitive advantage started to decline and, therefore, Urban 2 should be aware of two key insights provided by the framework:

1. Find revenue to fund investment. Although Urban 2 did improve its admissions process early on to help attract new students, it did not open a Primary School. This decision reduced its ability to invest in long term initiates. By comparison, Urban 1 (which operated in a similar

market) acquired two primary schools as soon as it became an academy. This increased sales revenue and created the funds required to make future changes. Urban 2 should learn from Urban 1, and find long term resources to secure long term performance.

2. Stabilise processes before improving them. Urban 2 tried to improve teaching capability by integrating subjects of less perceived importance into other areas of the curriculum. However, this investment did not impact performance immediately because teaching processes were unstable. The framework will help Urban 2 to understand that teaching processes cannot be improved before they are stabilised and that access to high quality students increases the speed by which teaching processes are stabilised using behaviour and attendance investments.

5.4.1.5 Rural 1 - Case 5

Rural 1 began by changing its governing board (step 1) and used employees and partners instead, because local residents lacked experience and capability. The new board then appointed a Principal who immediately hired a PR team to build a new public profile, which included rebranding (step 2). This step was particularly important because the market which Rural 1 served contained limited access to high quality students. When market perception had improved, senior managers spent time revising the customer journey to reduce turnaround time of admission procedures (step 3). However, market competition increased due to a competitor expansion. The number of Rural 1 applications declined and operating profit decreased to (£0.8M). Resources started to decline and eight teachers resigned and accepted jobs elsewhere. This caused teaching capability to reduce (step 7), which destabilised student behaviour (step 6). The number of incidents increased and, rather than helping this behavioural problem, eight teachers and 13 support staff left on long term sick leave. This decreased market perception (step 2) and wasted a number of resources because supply teachers were hired. As a result, Rural 1 decided to build a new site to increase resources

(step 3) and improve student quality (step 4). The new building improved class and back office facilities and reduced costs by £0.2M to £3.1M. However, the number of applications did not increase because market perception had not been improved first. Operating profit decreased to (£0.6M) and the board had to go back to step 1. A PR team were appointed to improve market perception (step 2). Once this step had been made, step 3 was repeated. Rural 1 opened an offsite provision unit which generated £0.2M revenue and helped to fund changes to the management and organisational structure (step 5). Once these structures were secure, two Assistant Vice Principals were appointed to stabilise (step 6) and improve the teaching process (step 7). Performance increased as a result, and exam grades improved to 63%. However, Rural 1 could not afford to improve management and development systems (step 8), so had to go back to step 3 to find resources. This was achieved by expanding the service offering to create an 'all-through academy' from 0 to 16 years, by taking over two Primary Schools. The board then appointed two Principals to lead these Primary and Secondary schools and positioned the existing Principal as an Executive Principal to control the 'pipeline' of student quality (step 4). Performance continued to improve and OfSTED returned and graded the schools 'outstanding'. However, if this vertical integration investment had occurred earlier, resources would have been found sooner. As a result. Rural 1 should be aware of two key insights provided by the framework:

1. **Market nature affects performance impact.** The investments made by Rural 1 positively impacted performance for a limited time only, because the market it served contained limited access to high quality students. The framework will help Rural 1 to identify a number of factors including market stability, level of competition and market share that affect how quickly and how much performance improves after future investments are made. By doing so, Rural 1 will better understand when and where to make investments, given the nature of their market.

2. **Create the right structure before improving process.** Rural 1 decided to build a new site to increase resources and improve student quality. However, Rural 1 did not create the right

structure to support this change. Although the new building improved class and back office facilities, it did not increase market perception because the PR team were not included in the new structure. Resources were wasted and teaching processes did not stabilise or improve until the right structure was in place, which occurred even though poor systems and processes existed. This was because middle managers could work around systems and processes when the right structure was in place.

5.4.1.6 Rural 2 - Case 6

Rural 2 began by changing its governing board (step 1), and used employees and partners, because local residents lacked experience and capability. The new board then appointed a Principal, but had difficulty finding a suitable candidate from within the market it served, so recruited externally. Then, a PR team were hired to improve market perception (step 2). This step was particularly important because the market which Rural 2 served contained limited access to high quality students. Senior managers spent time revising the customer journey to reduce the turnaround time of admission procedures (step 3). However, applications did not significantly increase, so Rural 2 went back to step 2 to improve market perception. Rural 2 repeated this step three times, because market nature affected its performance impact; the market was stable and not growing. In order to make further step 2 investments, supporting revenue needed to be secured. However Rural 2 did not open a Primary School, and this decision reduced its ability to invest in long term initiates. Instead, each functional-based team consolidated and standardised the administration processes they managed. Processes were mapped to identify which were critical, which added value and which could be eliminated. As a result, the level of paperwork and manpower used in admission processes was significantly reduced, which decreased costs (step 3) and created resources. The Principal used these resources to help revise the system for managing poor performance (step 7). 15 teachers were placed on capability, and five were sacked. Stricter rules for students followed, which included a zero tolerance behaviour policy. This investment occurred before steps 4 or 5 had

been made, which caused three problems. Firstly, student quality did not increase, secondly, resources needed to fund behaviour investments were not found and, thirdly, the right structures were not in place. By making this investment in the wrong order, behavioural incidents increased which resulted in 85 fixed term and four permanent exclusions. Resources were wasted, and Rural 2 then had to go back to step 4 to improve student quality. An Admissions Officer was appointed, and this investment helped management to control the 'pipeline' of quality. 24 applications were rejected from students within one mile, but no applications were received from customers outside of one mile. Revenue decreased to £6.1M due to the opening of a local competitor (a start-up academy). Market competitiveness increased, and, as a result Rural 2 went back to step 2 to create advertisements for local buses, inside and outside of a one mile radius. Then, the Principal spent time changing the management and organisational structure to ensure it was secure (step 5). This included centralising back office activities and increasing the tier of middle managers by 50%. Performance increased as a result, and exam grades improved to 48%. Next, management focused on stabilising teaching processes (step 6). Performance continued to improve and, in December 2013, OfSTED returned and gave a 'good' grade. The following month, three Vice Principals were employed to improve the teaching process (step 7) and the management and development systems used (step 8). Management consultants were hired to support these improvements. Operational performance increased and exam grades improved to 58%. However, financial performance remained a concern because of the market served. Rural 2 was unable to attract high quality students at the end of the five year journey. This meant it could not invest in long term initiatives and, as a result, it should be aware of two key insights provided by the framework:

1. **Market nature affects performance impact.** The investments made by Rural 2 positively impacted performance for a limited time only, because factors including market stability, level of competition and market share affected how quickly and how much performance improved after each investment was made. The market Rural 2 served contained limited access to high

quality students and had a high level of competitors. In view of this, Rural 2 should use the framework to adopt a strategy for continuous service investment. This will help Rural 2 to differentiate itself from its competitors.

2. Vertically integrate. Although Rural 2 did improve its admissions process early on to help attract new students, it did not open a Primary School. This decision reduced its ability to invest in long term initiates and wasted resources. If Rural 2 does acquire a Primary, it will create significant 'competitor barriers to entry' as the capability of its delivery system will be harder to imitate.

5.4.1.7 Coastal 1 - Case 7

Coastal 1 began by changing its governing board and appointed members with limited experience and capability which reduced the impact of step 1. A further nine step 1 changes were made because Coastal 1 had limited access to high quality leadership. This included appointing a new Principal who restructured the teaching process (step 5) in month 1. This investment occurred before steps 3 or 4 had been made, which caused two problems. Firstly, student quality did not increase, and secondly, resources needed to manage students were not found. By making changes to the organisational structure before improving student quality, behavioural incidents increased and two months later a student riot caused £0.2M damage. The Principal resigned and the board appointed a behaviour-focused Principal. The new Principal reduced homework by 50% to increase student satisfaction. Whilst this change did help to stabilise teaching processes (step 6), exam results decreased to 18% because student quality had not been improved first (step 4). Coastal 1 did not change its students (step 4) until month 19. This was achieved by appointing an Admissions Officer to improve student quality and reduce application lead-time. Performance improved and exam results increased to 25%. Then, Coastal 7 had to go back to step 3 to find and secure long term resources. A new site was built (step 3) which helped to control the 'pipeline' of quality (step 4). This decision meant

managers could begin controlling demand. Exam results increased to 29%. However, competitors had higher exam results and therefore no applications were received from outside of one mile. Revenue decreased to £5.7M which reduced operating profit by £1.3M to £0.1M. This highlighted the need to increase resources further (step 4). A revenue focus was implemented; a Corporate Events Officer was employed to generate non-teaching revenue. Revenue increased to £6.0M. These additional resources were used to improve leadership and narrow objectives. Coastal 1 went back to step 1 and appointed a new board using employees and partners, none of whom lived locally. This was because the market it served had limited access to high quality leadership. Governance improved and the new board launched a national recruitment campaign for a new Principal. Once appointed, the new Principal went back to step 5 and put the right structures in place to refocus management attention and determine where future resources should be located. This included centralising back office activities and increasing the tier of middle managers by 50% to stabilise teaching processes (step 5). Performance increased as a result and exam grades improved to 36%. Once these processes were secure, a strategy was introduced to attract higher quality teachers by increasing Year 11 teachers' average pay to £62,000 (step 7). This change helped to improve teaching capability. A year later pay increased further to £72,000. These higher salaries started to attract higher quality teachers. Performance increased as a result and exam grades improved to 42%. Performance continued to improve and in June 2014 OfSTED returned and graded the school 'good'. To develop performance further, Coastal 1 should be aware of two key insights provided by the framework:

1. **Improve governance and leadership.** If leadership had been improved at the beginning of its performance journey, Coastal 1 would have focused on the right objectives at the right time. Instead, investments were made in the wrong order. Investments to improve governance and leadership were made nine times because Coastal 1 had limited access to high quality leadership. Hence the nature of its market affected the impact of investments on performance.

2. Reduce market served if it cannot be changed. Coastal 1 struggled to change the market it served (which was smaller and more stable than Urban and Inner City markets). This meant it could not improve the quality of its students. Coastal 2 recognised this and decided to reduce the number of students taught. As a result, the number of students disrupting processes reduced, which helped to stabilise behaviour. Coastal 2 should continue to reduce the number of students taught, to further increase process satiability.

5.4.1.8 Coastal 2 - Case 8

Coastal 2 began by changing its governing board and appointed members with limited experience and capability which reduced the impact of step 1. A further seven step 1 changes were made because Coastal 1 had limited access to high quality leadership. This included appointing a new Principal who immediately revised the 'capability' system for managing poor performance (step 7). Five teachers and 16 support staff were sacked. Stricter rules for students followed (step 6), which included a zero tolerance behaviour policy. This investment occurred before steps 3, 4 or 5 had been made, which caused three problems. Firstly, student quality did not increase, secondly, resources needed to fund behaviour investments were not found and, thirdly, the right structures were not in place. By changing the teaching process (step 6) and capability (step 7) in the wrong order, behaviour incidents increased which resulted in 121 fixed term and five permanent exclusions. This increased costs and wasted resources, which meant Coastal 2 had to go back to step 3 to find new resources. Senior Managers spent time revising the customer journey to reduce the turnaround time of admission procedures. This led to a standardised, automated online application portal, which increased 'delivery system automation', as parents were able to apply for places online. As a result, the level of paperwork and manpower used in admission processes was significantly reduced, which reduced costs. Coastal 2 then went back to step 6, because the market it served had limited access to high quality teachers. A code of conduct for staff was introduced and this was linked to the 'capability' system for managing poor performance. Five teachers

and 12 support staff were sacked and stricter rules for students followed. Then, Coastal 2 went back to step 4 and built a new site to control the 'pipeline' of quality. However, capacity was reduced by 250 to 950 because the market it served contained limited access to high quality students. The Principal recognised that, whilst Coastal 2 could not significantly change the type of students applying for places (step 4), it could reduce the number of students destabilising the teaching processes (step 6). This decision meant managers could begin managing demand (step 4); it received 227 applications for 190 spaces, and rejected nine applications from within one mile. Exam results increased to 40%. Whilst this change helped to improve student quality, it did not improve teacher quality. Two teachers were suspended for sexually explicit behaviour on site. Two teachers were then suspended for sending sexually explicit photos over the network. A no-notice inspection followed and Behaviour and Safety was graded 'unsatisfactory' (4). As a result, a strategy was introduced to attract higher quality teachers by increasing Year 11 teachers' average pay to £52,000 which helped to improve capability (step 7). Performance increased as a result, and exam grades improved to 50%, though Coastal 2 could still not attract students from outside of one mile. As a result, the service offering was expanded to create an 'all-through academy' from 0 to 16 years, by taking over a Primary School. An Admissions Officer was then appointed to improve student quality in the Primary School (step 4) and reduce application lead-time within the Secondary School (step 3). Performance continued to improve and in June 2014 OfSTED returned and graded the schools 'good'. However, this change should have been made earlier. As a result, Coastal 2 should be aware of two key insights provided by the framework:

1. **Improve management and development systems.** Once teaching capability improves, the next step for Coastal 2 is to improve the management and development systems used. By analysing the framework, Coastal 2 can identify that these systems will create future improvement opportunities, and stabilise the seven steps already made. In doing so, it will secure long term performance.

2. Reduce market served if it cannot be changed. Whilst Coastal 2 struggled to change the market it served, it did vertically integrate towards the end of its development. This investment helped to manage the pipeline of future student talent. However, Coastal 2 should plan for a dip in financial performance before exam results improve further. This is because the market it serves contains limited access to high quality students and teachers. By acquiring a Primary School, it also acquired low quality students. These students need to be managed out, which will increase costs. Resources are therefore needed to support these costs.

5.4.2 Contribution to schools

The next area of contribution is schools. The academisation of the UK education system places new responsibilities on school leaders. In this context of greater autonomy and accountability, school leaders require new learning to create and sustain operational, financial and competitive performance. The framework presented in this chapter begins to fill this gap, and in doing so, helps schools make the right investments in the right order given their performance objectives and market context. The framework suggests that schools wishing to improve performance need to make the right investments in the right order, realise their impact will vary (depending on where the school is located and the previous changes it has made), manage their pipeline of future student talent, invest more resources in rural and coastal schools (with lower access to resources) and plan for a dip in financial performance before their exam results will improve. These contributions are now discussed in further detail:

Improve governance and leadership. The first step for all the schools was to appoint a new governing board with members selected based on their previous experience of improving an organisation's performance. Their meetings' minutes also showed the board took more decisions after academisation and these had more focus on performance than they had before. Whilst each school appointed new leaders and narrowed objectives, these leaders did not impact operational or financial performance. High quality leadership helps narrow objectives, increase focus and improve decisions. Although these three benefits do not impact

financial or operational performance, they do create a climate for future investments. Hence, improving leadership was the first step in a school's performance journey.

Find revenue to fund investment. All schools improved their admissions process early on to help attract new students, but Urban 1 was the only one which acquired two primary schools as soon as it became an academy. This increased sales revenue and created the funds required to make changes elsewhere. By contrast, the other schools did not expand their service offering until much later on in their development, which reduced their financial performance and limited their ability to invest in long term initiatives. Schools should therefore find revenue to fund investments before changing structures or making overhead investments.

Create the right structure before improving process. Each case changed existing management and organisational structures. Teaching processes did not stabilise or improve until the right structures were in place. Structures were then used to focus management attention (management structures) and determine where resources were located (level of centralisation), which occurred where even poor systems and processes existed. This is because middle managers could work around systems and processes when the right structures were in place. Schools should therefore ensure the right structure is in place before processes are improved (or stabilised).

Delay overhead investment. Inner City 2 was very quick to introduce middle managers to help manage parents. However, it did not have the revenue to support this additional overhead and had to make 75% of these managers redundant in the following year. By contrast, the other schools delayed this investment until they had the revenue and volume of students to support it. Each case experienced this challenge on their performance journey: revenue declined when overhead investments to improve student quality were made. Understanding this paradox is important for schools, as sufficient resources must be found first. These

additional resources help to ride the subsequent revenue decline and build it back by developing new capabilities.

Reduce market served if it cannot be changed. As the Urban and Inner City schools improved their operational performance, they were able to change the market they served by attracting more motivated students who lived more than one mile from the school. The improved quality of these students helped them stabilise and improve the teaching process. This improved their operational and financial performance. By contrast, the Rural and Coastal schools struggled to change the markets they served as they were smaller and more stable. To improve the quality of the students within, they therefore had to reduce the number of students they taught. Therefore, schools should analyse the market they serve to understand whether to change it or reduce it.

Stabilise processes before improving them. The teaching process could not be improved before it was stabilised. All schools struggled to improve student attendance and behaviour but Urban 1 managed it faster than the others by acquiring two primary schools early on and attracting more motivated students. The other schools all found that their attempts to improve the teaching process failed while they were still unstable. Schools which reduced costs were able to find resources to make attendance and behaviour investments. These investments helped stabilise teaching processes and included fixed term and permanent exclusions. Access to high quality students increases the speed by which teaching processes are stabilised using behaviour and attendance investments. However, each case could not improve teaching processes until the right structures were in place.

Vertically integrate. Schools which expanded their service offering increased financial performance (sales revenue) most significantly. The most common method of expansion was vertical integration into primary and sixth form provision. Opening a primary school created resources, helped to fund future investments and enabled managers to control the 'pipeline' of quality. Opening a sixth form helped retain existing customers, which reduced the need to

attract new customers; existing customers were retained for two additional years (Year 12 – 13) which increased financial performance. Sixth form provision also helped develop alumni processes. The schools which did not vertically integrate until later in their development reduced their financial performance and limited their ability to invest in long term initiatives.

These insights challenge some of the myths traditionally associated with improving a school's performance, including:

- **More resources leads to faster improvement** - although resources are necessary to attract good leaders and teachers, change structures, improve teaching processes and put in good systems, the school does not improve faster if more funds are available. Instead, the speed of improvement depends on the school making the right changes in the right order

- **Must have a Super Head** - although appointing a capable leader will help improve the focus and quality of the decisions made in a school, it does not by itself improve performance. Performance will only improve when the school starts to improve its student quality, structures and teaching process

- **Should improve teaching first** - improving the teaching capability within a school will have little impact if the process is still unstable (poor student attendance and behaviour) and the wrong structures are still in place

- **Have to have small class sizes** - the impact of the teaching process depends more on the level of student attendance and behaviour than the size of the class

- **A new building will improve behaviour** - although it creates the opportunity to increase revenue (more students and provision of non-academic services such as conference

facilities and gym memberships). A new building will not, by itself, change staff or student behaviour

- **Need a 'zero tolerance' behavioural policy** - although policies 'forcing' students to behave will have a short-term impact, sustainable behaviour changes will not occur until teachers work with students to collectively identify 'positive behaviours' and introduce positive behaviour management techniques such as 'get ready for learning'

- **Inner City schools are more difficult to 'turnaround'** - the increased access to resources (students and teachers) for Inner City schools makes it easier to improve leadership and student quality than in Rural or Coastal ones

5.4.3 Contribution to service organisations

The final area of contribution is to service organisations for problems created by not making the right decisions in the right order or not using the correct approach for their situation. The framework presented in this chapter suggests that market nature affects performance impact. Factors such as market stability, level of competition and market share affects how quickly and how much performance improves after investments are made. These factors explain why it has taken the Rural and Coastal schools much longer to improve performance; their markets are more stable and contain limited access to resources. Service organisations should be aware of these factors and how they impact the relationship between investment and performance; resources affect the beginning of a performance journey, existing structures and processes affect the end and the market served affects the speed of the journey. This contribution naturally translates to other service organisations who have a similar role within society, such as health providers, and those trying to provide a public service in different markets, such as transport.

5.5 Summary and conclusions

This chapter discussed the findings of the research study. These findings were then compared with existing literature. In doing so, eight themes emerged. These themes were developed into a framework to help practitioners better understand where to make investments within their service organisation, given their performance objectives and how quickly they need to improve performance. By using the framework to analyse each case study retrospectively, this chapter demonstrates where resources were wasted, why certain investments did not create impact and how improvements could have occurred more quickly with less resources. This process helped to identify a number of contributions concerning three areas; firstly the schools studied, secondly, schools in general and thirdly, service organisations. These contributions challenge some of the myths traditionally associated with improving a school's performance, and suggest that schools wishing to improve performance need to make the right investments in the right order, realise that their impact will vary (depending on where the school is located and the previous changes it has made), manage their pipeline of future student talent, invest more resources in rural and coastal schools (where access to resources is lower) and plan for a dip in financial performance before their exam results will improve.

6. Conclusions

6.1 Introduction to Chapter

This chapter summarises the conclusions from all the chapters looking at the work to date in the field of service operations strategy, the research questions used, the methodology adopted, the multiple case study design employed, the findings from the work undertaken and the contribution of these findings and future research areas. It looks at the purpose of the research (to explore the impact of leadership, structure, process and systems investments on operational, financial and competitiveness performance in service organisations over time), its main findings and the subsequent contribution that has been made to the field of service operations management.

Since its emergence in the mid-1980s, service research has reached a point where it is necessary to broaden the understanding of service operations strategy (Johnston's 1999; Roth and Menor, 2003; Verma and Thompson, 1999; Vickery et al, 1993). No empirical study, to the best of the author's knowledge, has empirically investigated the relationship between investment and business performance. The findings of this study therefore contribute to the limited literature that explains how service organisations can improve performance over time and in different markets, and in a wider sense to the growing body of literature linking strategic resources with important outcomes (Hult et al, 2003). By doing so, this study explores the impact of service operations strategy in a wider context than previous studies by looking at the impact of leaders, systems, structures and processes on performance. Whilst a number of studies have found positive relationships between performance and investment, none have looked at the collective impact of leaders, systems, structures and processes.

A management framework has been developed, and this helps the study contribute to service operations management literature by focusing on organisations who have made a broader range of investments than previous studies. Secondly, by showing how these investments impact performance in markets with different stability and levels of competition. Thirdly, by understanding how these investments impact performance over time. This framework helps academics and practitioners to broaden their understanding of service operations strategy and the link between investment and performance over time and in different markets.

Consequently this study builds on the work of others (such as Angel and Rock, 2005; Brown, 2001; Ike et al., 2010; Iwata and Okada, 2011 and Morita et al., 2011), and addresses the call for longitudinal studies to help service organisations understand how to improve business performance over time (Gammeltoft et al., 2010; Jonas, 2010; Hill and Cuthbertson, 2011).

6.2 Research limitations and reflections

As with any piece of research, it is important to realise its limitations. The first concerns the methodological approach because Stake (1994) argues that a case study approach is not

always effective. According to his research, it is rare that cases can be examined to form a representative sample because of the intensity of data collection within each case. According to Johnson, Leach and Liu (1999), practical considerations restrict selection to cases that offer the 'greatest opportunity to learn'. This is achieved through a balanced illustration of themes, rather than a compelling representation of a whole population. However, Yin (1994) suggests that case studies lack generalisability. This is due to 'the erroneous application of statistical generalisation that would treat the case as a sample of one." (Bryman, 1989: 73). Yin (1994) comments that "case studies are generalisable to theories as opposed to populations" (1994: 23). As a result, they should be considered with regard to the theoretical inferences generated by the research. To maximise generalisability of the study, schools were selected as examples of service organisations. Schools have economic objectives as well as social and environmental objectives, and are representative of service organisations because they provide a similar service to each other, but compete in different markets (varying size and student type) using leaders, structures, processes and systems to operate in different ways. By doing so, schools provide an effective setting to understand how investments impact business performance in different markets (research question 1). Schools have different access to resources, which include staff, students and money, which means that different investments are made (sometimes repeated) over time. The impact of these investments varies due to the different levels, types and concentration of competitors. As a result, schools provide an effective setting to explore the relationship between investment and business performance over time (research question 2). By studying the investments made in different schools over a five year period, the research was able to isolate key investments using a case study methodology. Certain variables remained constant which helped the research to identify how different types of leadership, structure, process and systems investment affect impact business performance. Schools are measured using nationally regulated performance metrics, which meant the research used operational, financial and competitiveness variables to assess business performance over time. In doing so a number of propositions were identified, which helped the research to build theory in the form of a management framework.

The second limitation is the requirements of direct observation (Meredith, 1998), and particularly the constraints of cost, time, and access (Bryman, 1989). This thesis has not been constrained by these factors, though the expense of cost, time and access is significant; this research is founded on relationships with executives over a two year period resulting in a thorough environmental context and understanding. 312 site visits occurred between 2013 and 2015, in which 336 were interviews held, 784 documents and 2,296 archival records analysed. This detailed approach ensures research findings are rigorous, robust and generalisable.

The third limitation concerns the length of study. Validity underpins the purpose of research due to inductive approach, which focuses upon building theory. However, academics and practitioners may wish to understand and assess findings over a longer, more sustained period. This approach would reflect the research purpose and enhance the application of 'quantity' by collecting a larger amount of data (Goodman and Kruger, 1988). A larger amount of data could enhance findings and reflect a wider range of firms. Findings would be better positioned to assist academics and practitioners (Homburg and Fürst 2005; Ulaga and Eggert 2006; Zhou, Yim, and Tse 2005; Griffith and Lusch, 2007). In addition, this limitation applies to the success of a repeated study; the extent to which the same procedures can be replicated with the same results. Here, the objective is "to be sure that, if a later investigator followed exactly the same procedures as described by an earlier investigator and conducted the same case study all over again, the later investigator should arrive at the same findings and conclusions".

These limitations indicate that although the first step has been made to investigate the impact of investments on operational, financial and competitiveness performance over time in service organisations, significant further investigation is still required. The theories that have been developed (built) now need to be tested and further theory built in other subject areas, as this

field that have not yet been addressed. The next section on future research looks at this in more detail.

6.3 Future research

The research contained in this thesis concerns building theory. It is the first step in addressing a number of literature gaps and more research needs to follow; the propositions and management framework presented in chapter four have been built on eight case studies and this sample now needs to be expanded further. In doing so, theory testing research should be completed. Theory testing case study research focuses on testing linkages and relationships identified by previous research methods (Voss et al, 2002). This type of research is commonly used to complement complex theoretical models or in conjunction with surveys to overcome the weaknesses inherent in any single method (Voss et al, 2002). As such, theory testing case study research is not commonly found within service operations management literature, but more commonly found within supply chain management literature (McLachlin, 1997; Boyer and McDermott, 1999). Theory extension/refinement case study research focuses on validation of previously established empirical results (Pagell and LePine, 2002). This type of research is commonly used to complement longitudinal data collection (Cardinal et al, 2004). In doing so, it will help the dimensions and characteristics within the framework to help other service organisations who have a similar role within society, such as health, and those trying to provide a public service in different markets, such as transport, understand where resources are wasted, why certain investments do not create impact and how improvements can occur more quickly with less resources. These are multiple future research areas that concern the testing of theories and methodologies developed through the work conducted, beginning by looking at the ladder steps in detail to understand how they impact each other. A large sample study would help to test the propositions that have been developed in this research. In doing so, the three areas of contribution outlined in chapter five (the cases studied, secondly, schools in general and service organisations) will become more robust.

6.4 Summary and conclusions

This thesis presents the findings from a longitudinal research study of the impact of leadership, structure, process and systems investments on operational, financial and competitiveness performance in service organisations over time.

Eight service organisations (schools) were investigated using replication logic that were located in different parts of the country (Inner city, Urban, Rural and Coastal) that currently serve different markets, teach different students (type and number) and perform differently (across a number of operational, financial and competitiveness measures). The research isolated key investments using a case study methodology to understand the impact of different investments on operational, financial and competitiveness performance over time. Each case study took two years to research and involved 12 to 48 visits, interviews with 24 to 51 executives, 124 to 219 direct observations, analysis of 42 to 127 documents and analysis of 81 to 351 archival records. The findings from each case were written up into a 31 to 42 page report, which was presented back to the school studied to ensure the data had been interpreted correctly. A cross-case analysis was then completed to identify the different investments made, their impact on performance and the factors affecting their impact.

A multiple case study research design was used and the findings revealed that firms should improve their governance and leadership and find sources of revenue before they make investments. They also need to put the right structures in place before they invest in their processes. Overhead investment should be delayed until the revenue and volume is in place to support it and processes cannot be improved until they are stabilised. Factors such as market stability and level of competition will also affect how quickly and how much performance improves after investments are made. These findings were developed into a management framework, which helps practitioners to better understand how and where to make investments within their business, given their performance objectives and the nature of

the market they serve. This framework has significant implications for service organisations trying to turn around performance. It suggests they should:

• Make investments in the right order - to create the maximum impact with each investment.

• Realise investment impact will vary - depending on their access to resources (leadership and customers), market (size, growth, stability, competition and raw material type and quality) and previous investments/changes they have made (systems, structures and process stability).

• Manage resource pipeline - early in their journey to increase revenue and create an opportunity for reducing costs and increasing raw material quality.

• Invest more resources - in stable and declining markets as they have lower access to leadership, employees and/or customers.

• Plan for dip in financial performance - as their revenue must decrease (as they remove customers) and costs must increase (to attract better employees) before operational performance can improve.

As a result, this research builds on the work of others (such as Angel and Rock, 2005; Brown, 2001; Ike et al., 2010; Iwata and Okada, 2011 and Morita et al., 2011) and addresses the call for longitudinal studies to help service organisations understand how to improve business performance over time (Gammeltoft et al., 2010; Jonas, 2010; Hill and Cuthbertson, 2011). Although the first step has been made through the research completed, the theories that have been developed in this thesis now need to be tested on a wider sample. The framework presented in chapter five, for example, has been built on eight case studies. This sample now needs to be expanded to ensure it is applicable and useful for academics and practitioners trying to improve the performance of low performing service organisations. Consequently, significant further investigation is still required to investigate the impact of investments on operational, financial and competitiveness performance over time in service organisations, with a particular focus on how to create 'sustaining' practices.

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Appendix 1: Case data for Inner City 1 (Case 1)

Figure a1: Inner City 1 (Case 1) competitor analysis

Performance	04-05	05-06	06-07	07-08	08-09	09-10	10-11	11-12	12-13	13-14
OfSTED Inspection (1-4)										
Inner City 1 (Case 1)	3	3	3	4	4	-	2	2	-	-
Academy 1	4	-	3	-	2	-	3	4	-	3
Academy 2	3	-	-	2	-	3	-	2	-	2
Academy 3	3	-	2	-	1	-	2	-	2	-
Academy 4	1	-	-	1	-	-	2	-	-	3
Academy 5	3	-	3	-	-	3	2	-	2	-
Exam results (% 5+ C or above)										
Inner City 1 (Case 1)	27	26	20	22	24	27	36	41	48	53
Academy 1	33	35	39	41	44	47	42	33	43	35
Academy 2	60	62	63	60	59	50	59	63	60	66
Academy 3	65	68	73	78	79	65	58	51	66	49
Academy 4	75	77	75	73	71	72	71	60	64	74
Academy 5	60	58	55	59	52	55	51	48	61	58
Progress measure (Maths)										
Inner City 1 (Case 1)	-	-	-	-	-	43	46	49	52	53
Academy 1	-	-	-	-	-	55	53	47	49	51
Academy 2	-	-	-	-	-	59	62	64	66	67
Academy 3	-	-	-	-	-	75	72	68	65	59
Academy 4	-	-	-	-	-	73	71	70	75	79
Academy 5	-	-	-	-	-	60	59	63	65	67
Progress measure (English)										
Inner City 1 (Case 1)	-	-	-	-	-	52	64	75	78	83
Academy 1	-	-	-	-	-	72	70	59	68	79
Academy 2	-	-	-	-	-	70	73	77	79	82
Academy 3	-	-	-	-	-	73	69	70	73	79
Academy 4	-	-	-	-	-	83	81	84	83	86
Academy 5	-	-	-	-	-	69	72	74	75	76
Revenue (£000)										
Inner City 1 (Case 1)	5,817	5,769	5,735	5,821	5,830	4,272	4,087	4,864	5,618	6,311
Academy 1	4,322	4,374	4,502	4,598	4,692	4,773	4,268	4,394	4,336	4,320
Academy 2	5,185	5,232	5,221	4,763	5,232	5,943	6,679	7,025	7,243	7,374
Academy 3	5,912	6,281	6,328	6,349	6,969	7,220	7,851	8,159	8,506	8,718
Academy 4	4,710	4,642	4,695	4,758	4,805	4,747	4,805	4,816	4,789	5,571
Academy 5	5,955	6,024	5,978	6,050	6,026	7,265	7,371	7,454	7,478	7,521
Primary students										
Inner City 1 (Case 1)	0	0	0	0	0	0	88	145	205	234
Academy 1	0	0	0	0	0	0	0	0	0	0
Academy 2	0	0	0	0	0	0	0	0	0	0
Academy 3	0	0	0	0	0	0	0	0	0	0
Academy 4	0	0	0	0	0	0	0	0	0	0
Academy 5	0	0	0	0	0	0	0	0	0	0
Secondary students										
Inner City 1 (Case 1)	1,322	1,328	1,325	1,325	1,347	979	733	700	750	875
Academy 1	750	750	752	753	755	754	810	834	823	820
Academy 2	984	993	991	904	993	1,128	1,194	1,211	1,214	1,212
Academy 3	1,124	1,192	1,201	1,205	1,212	1,234	1,343	1,394	1,412	1,425
Academy 4	894	881	891	903	912	901	912	914	909	912
Academy 5	970	979	981	988	985	1,202	1,209	1,214	1,212	1,216
Total	6,044	6,123	6,141	6,078	6,204	6,198	6,201	6,267	6,320	6,460
Market share (% students)										
Inner City 1 (Case 1)	22	22	22	22	22	16	12	11	12	14
Academy 1	12	12	12	12	12	12	13	13	13	13
Academy 2	16	16	16	15	16	18	19	19	19	19
Academy 3	19	19	20	20	20	20	22	22	22	22

Performance	04-05	05-06	06-07	07-08	08-09	09-10	10-11	11-12	12-13	13-14
Academy 4	15	14	15	15	15	15	15	15	14	14
Academy 5	16	16	16	16	16	19	19	19	19	19
Market share (% competitors)	140	138	138	139	139	94	67	63	67	78
Sixth form students										
Inner City 1 (Case 1)	0	0	0	20	25	8	121	275	315	314
Academy 1	85	97	124	145	164	184	0	0	0	0
Academy 2	0	0	0	0	0	0	89	148	195	227
Academy 3	0	0	0	0	134	165	178	187	245	278
Academy 4	0	0	0	0	0	0	0	0	0	176
Academy 5	194	199	186	194	192	214	230	243	251	256
Primary student capacity (number)										
Inner City 1 (Case 1)	0	0	0	0	0	0	0	450	450	450
Academy 1	0	0	0	0	0	0	0	0	0	0
Academy 2	0	0	0	0	0	0	0	0	0	0
Academy 3	0	0	0	0	0	0	0	0	0	0
Academy 4	0	0	0	0	0	0	0	0	0	0
Academy 5	0	0	0	0	0	0	0	0	0	0
Secondary student capacity (number)										
Inner City 1 (Case 1)	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440
Academy 1	750	750	750	750	750	750	900	900	900	900
Academy 2	1000	1000	1000	1000	1000	1000	1200	1200	1200	1200
Academy 3	1400	1400	1400	1400	1400	1400	1400	1400	1400	1400
Academy 4	950	950	950	950	950	950	950	950	950	950
Academy 5	1000	1000	1000	1000	1300	1300	1300	1300	1300	1300
Sixth form student capacity (number)										
Inner City 1 (Case 1)	0	0	0	400	400	400	400	400	400	400
Academy 1	200	200	200	200	200	200	0	0	0	0
Academy 2	0	0	0	0	0	0	300	300	300	300
Academy 3	0	0	0	0	150	150	250	250	250	250
Academy 4	0	0	0	0	0	0	0	0	0	150
Academy 5	300	300	300	300	300	300	300	300	300	300
Primary teacher capacity (number)										
Inner City 1 (Case 1)	0	0	0	0	0	0	0	9	11	11
Academy 1	0	0	0	0	0	0	0	0	0	0
Academy 2	0	0	0	0	0	0	0	0	0	0
Academy 3	0	0	0	0	0	0	0	0	0	0
Academy 4	0	0	0	0	0	0	0	0	0	0
Academy 5	0	0	0	0	0	0	0	0	0	0
Secondary teacher capacity (number)										
Inner City 1 (Case 1)	97	97	96	91	95	68	52	49	55	63
Academy 1	42	42	42	42	42	44	46	47	46	46
Academy 2	55	56	56	51	56	63	67	68	68	68
Academy 3	63	67	67	70	71	73	75	78	79	80
Academy 4	50	49	50	50	50	50	50	50	50	50
Academy 5	54	55	55	56	58	68	68	68	68	68
Sixth form teacher capacity (number)										
Inner City 1 (Case 1)	0	0	0	1	1	1	5	11	11	11
Academy 1	3	3	4	5	5	6	0	0	0	0
Academy 2	0	0	0	0	0	0	3	5	6	8
Academy 3	0	0	0	0	4	5	6	7	8	9
Academy 4	0	0	0	0	0	0	0	0	0	5
Academy 5	6	7	6	6	6	7	8	8	8	9

Note: Progress measures were not introduced into the UK education sector until 2008-09

Figure a2: Inner City 1 (Case 1) student ethnicity competitor analysis

Student ethnicity (% total)	04-05	05-06	06-07	07-08	08-09	09-10	10-11	11-12	12-13	13-14
Inner City 1 (Case 1)										
Black or Black British	0.0	0.0	0.0	0.0	0.1	1.5	4.5	9.9	12.1	13.8
Chinese	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.3	0.6
Other	1.1	1.4	4.5	7.7	9.9	8.9	9.1	9.7	9.5	9.5
White	58.1	57.8	55.7	52.8	50.1	48.9	43.8	40.3	38.2	34.8
Asian or Asian British	12.5	11.8	11.9	12.1	13.6	11.8	12.9	12.4	11.1	11.9
Mixed	26.4	26.5	24.1	23.2	25.7	28.9	28.1	26.5	27.6	29.4
Not stated	1.9	2.5	3.8	4.1	0.6	0.0	1.6	0.3	1.1	0.1
Academy 1										
Black or Black British	3.8	3.9	4.8	5.8	4.9	2.8	5.9	6.4	7.9	8.8
Chinese	0.1	0.0	0.1	0.2	0.3	0.4	0.4	0.9	0.5	0.8
Other	1.1	1.4	4.5	7.6	9.9	8.8	9.1	9.6	9.5	9.5
White	68.2	66.0	64.0	62.1	61.0	58.1	57.0	53.1	51.0	50.0
Asian or Asian British	8.8	9.0	8.0	8.0	9.2	10.1	11.0	12.2	13.0	12.2
Mixed	10.3	10.9	11.1	12.3	13.2	14.3	14.1	15.3	16.7	17.2
Not stated	7.7	8.8	7.5	4.0	1.5	5.4	2.5	2.4	1.4	1.5
Academy 2										
Black or Black British	2.6	2.8	3.7	4.9	5.5	5.9	6.8	7.7	8.9	9.8
Chinese	0.3	0.1	0.2	0.1	0.3	0.3	0.6	0.8	0.8	0.9
Other	5.5	5.7	6.7	7.7	9.9	8.9	9.1	9.7	9.5	9.5
White	64.4	63.1	60.1	58.9	56.7	53.2	51.2	48.5	44.3	43.1
Asian or Asian British	8.5	8.5	9.5	9.5	9.1	10.1	11.3	12.4	15.3	17.4
Mixed	10.3	10.9	11.1	12.3	13.9	14.5	14.1	15.5	16.7	17.4
Not stated	8.4	8.9	8.7	6.6	4.7	7.1	6.9	5.4	4.5	1.9
Academy 3										
Black or Black British	2.8	2.8	3.9	4.8	5.9	6.6	8.8	9.9	11.0	10.9
Chinese	0.2	0.1	0.1	0.4	0.3	0.8	0.6	0.7	0.7	0.9
Other	4.5	4.9	5.5	5.7	8.8	8.0	9.1	9.7	9.4	9.7
White	67.0	65.0	63.0	61.0	58.0	56.0	53.0	51.0	48.0	46.0
Asian or Asian British	8.5	8.5	9.5	9.5	9.1	10.1	11.3	12.4	15.3	17.4
Mixed	10.3	10.9	11.1	12.3	13.4	14.5	14.1	15.5	15.4	15.1
Not stated	6.7	7.8	6.9	6.3	4.5	4.0	3.1	0.8	0.2	0.0
Academy 4										
Black or Black British	0.0	0.8	2.5	3.8	3.0	3.1	4.5	4.9	3.8	4.7
Chinese	0.1	0.2	0.8	0.4	0.3	0.4	0.9	0.3	0.4	0.7
Other	7.7	7.9	8.9	9.4	11.2	10.9	12.1	13.4	12.5	14.1
White	66.0	67.0	64.0	63.0	61.0	58.0	56.0	53.0	51.0	48.0
Asian or Asian British	8.5	8.5	9.5	9.5	9.1	10.1	11.3	12.4	15.3	17.4
Mixed	10.3	10.9	11.1	12.3	13.4	14.5	14.1	15.5	15.4	15.1
Not stated	7.4	4.7	3.3	1.6	2.0	3.0	1.1	0.5	1.6	0.0
Academy 5										
Black or Black British	0.0	3.1	4.1	5.8	5.9	5.0	5.8	6.9	7.8	7.7
Chinese	0.0	0.8	0.8	0.1	0.0	0.2	0.4	0.3	0.5	0.7
Other	7.7	7.9	8.9	9.4	11.2	10.1	12.1	13.4	12.5	14.1
White	63.3	64.2	61.2	59.9	58.5	52.5	48.1	45.4	43.1	42.4
Asian or Asian British	8.5	8.5	9.5	9.5	9.1	10.1	11.3	12.4	15.3	17.4
Mixed	10.3	10.9	11.1	12.3	13.4	14.5	14.1	15.5	15.4	15.1
Not stated	10.2	4.6	4.4	3.0	1.9	7.8	8.2	6.1	5.4	2.6

Note: Competitors identified through analysis of 'school choices' on secondary school applications

Figure a3: Inner City 1 (Case 1) year 11 student leavers competitor analysis

Destination (% Year 11 leavers)	04-05	05-06	06-07	07-08	08-09	09-10	10-11	11-12	12-13	13-14
Inner City 1 (Case 1)										
Stayed at school (sixth form)	0	0	0	1	1	24	34	41	46	50
Sixth form college (other provider)	15	9	10	3	9	0	0	0	0	3
Further education college	34	35	31	24	26	28	31	33	30	26
Apprenticeship	8	9	12	13	11	6	3	0	2	3
Left education	31	33	32	45	41	29	21	16	13	11
Unknown	12	14	15	14	12	13	11	10	9	7
Academy 1										
Stayed at school (sixth form)	45	43	41	42	31	32	33	35	37	38
Sixth form college (other provider)	14	13	14	15	17	18	20	22	21	22
Further education college	29	28	26	25	22	24	25	26	24	23
Apprenticeship	1	4	6	5	15	11	6	4	3	1
Left education	10	10	10	11	12	14	15	13	11	9
Unknown	1	2	3	2	3	1	1	0	4	7
Academy 2										
Stayed at school (sixth form)	40	41	40	42	43	44	47	48	52	51
Sixth form college (other provider)	9	6	7	8	7	5	6	7	6	5
Further education college	40	41	40	39	39	38	37	35	34	33
Apprenticeship	1	1	1	2	2	1	1	2	1	3
Left education	7	8	8	4	3	5	3	3	3	4
Unknown	3	3	4	5	6	7	6	5	4	4
Academy 3										
Stayed at school (sixth form)	1	3	4	6	18	24	33	37	44	48
Sixth form college (other provider)	13	13	14	15	16	15	14	13	12	13
Further education college	45	44	41	42	39	38	34	31	28	27
Apprenticeship	24	25	24	23	16	14	11	9	6	2
Left education	15	14	15	13	11	9	7	7	6	5
Unknown	2	1	2	1	0	0	1	3	4	5
Academy 4										
Stayed at school (sixth form)	54	53	53	56	56	51	49	54	57	59
Sixth form college (other provider)	20	21	22	21	20	19	17	15	13	10
Further education college	20	21	22	23	24	23	22	21	22	23
Apprenticeship	1	1	2	0	0	6	9	8	5	2
Left education	4	3	1	0	0	1	3	2	2	4
Unknown	1	1	0	0	0	0	0	0	1	2
Academy 5										
Stayed at school (sixth form)	60	61	66	63	64	64	65	67	68	67
Sixth form college (other provider)	10	9	9	8	8	7	7	6	5	4
Further education college	20	21	21	20	19	17	18	19	18	17
Apprenticeship	5	5	4	4	4	3	3	2	2	2
Left education	4	3	0	3	3	8	6	5	4	6
Unknown	1	1	0	2	2	1	1	1	3	4

Note: Competitors identified through analysis of 'school choices' on secondary school applications

206

Figure a4: Inner City 1 (Case 1) performance journey

Performance	04-05	05-06	06-07	07-08	08-09	09-10	10-11	11-12	12-13	13-14
OfSTED Inspection (1-4)										
Achievement of pupils	3	3	3	3	3	-	2	2	-	-
Teaching quality	3	3	3	3	3	-	2	1	-	-
Behaviour and safety	3	2	2	4	4	-	2	2	-	-
Leadership and management	2	2	2	4	3	-	1	1	-	-
Overall	3	3	3	4	4	-	2	2	-	-
Exam results										
Primary (% level 4 or above)	-	-	-	-	-	-	-	-	-	-
Secondary (% 5+ C or above)	27	26	20	22	24	27	36	41	48	53
Secondary (% 5+ B or above)	-	-	-	-	-	-	4	6	9	11
Secondary (% 5+ A or above)	-	-	-	-	-	-	2	3	3	4
Revenue (£000)										
Teaching	5,817	5,769	5,735	5,821	5,830	4,272	4,087	4,864	5,521	6,186
Non-teaching	0	0	0	0	0	0	0	0	97	125
Total	5,817	5,769	5,735	5,821	5,830	4,272	4,087	4,864	5,618	6,311
Costs (£000)										
Teaching	3,595	3,691	3,664	3,645	3,648	2,295	2,164	2,489	2,921	3,454
Teaching years 7-9	2,208	2,273	2,248	2,262	2,234	1,359	1,132	1,293	1,529	1,765
Teaching year 10	703	716	702	703	712	526	612	620	622	635
Teaching year 11	684	702	714	680	702	410	420	576	770	1,054
% of teaching costs by year 11	19	19	19	18	19	17	19	23	26	30
Non-teaching	437	440	443	456	486	786	758	734	712	703
Total	5,716	5,833	5,821	5,781	5,836	3,491	3,342	3,799	4,403	5,211
Operating profit (£000)	101	(64)	(86)	40	(6)	781	745	1,065	1,215	1,100
Students Per year										
Primary	0	0	0	0	0	0	0	145	205	234
Secondary	1,322	1,328	1,325	1,345	1,347	987	854	975	1,065	1,189
Sixth form	0	0	0	20	25	8	121	275	315	314
Total	1,322	1,328	1,325	1,365	1,372	995	975	1,395	1,585	1,737
Available primary capacity	0	0	0	0	0	0	0	450	450	450
Available secondary capacity	1,440	1,440	1,440	1,440	1,440	1,440	1,440	1,440	1,440	1,440
Available sixth form capacity	0	0	0	400	400	400	400	400	400	400
Total available capacity	1,440	1,440	1,440	1,840	1,840	1,840	2,290	2,290	2,290	2,290
Number of secondary applications	255	267	271	279	266	273	289	295	315	326
Applications (% available capacity)	87	92	93	96	92	94	100	102	109	112
Available Spaces in Year 7	290	290	290	290	290	290	290	290	290	290
% of applications outside 1 mile	0	0	0	0	1	14	16	22	56	59
% total capacity filled	93	92	92	93	93	68	65	77	65	73
Rejected applications within 1 mile										
Primary	0	0	0	0	0	0	31	45	53	51
Secondary	0	1	0	1	0	5	34	37	42	45
Total	0	1	0	1	0	5	65	82	95	96
Rejected applications outside 1m										
Primary	0	0	0	0	0	0	0	0	0	0
Secondary	0	0	0	0	0	0	0	1	2	2
Total	0	0	0	0	0	0	0	1	2	2
Competitiveness (primary)										
Students living within 1 mile	0	0	0	0	0	0	0	4	12	14
Students living outside 1 mile	0	0	0	0	0	0	0	141	193	220

Performance	04-05	05-06	06-07	07-08	08-09	09-10	10-11	11-12	12-13	13-14
% students outside 1 mile	0	0	0	0	0	0	0	97	94	94
Competitiveness (secondary)										
Students living within 1 mile	1,322	1,328	1,325	1,345	1,346	859	763	870	674	655
Students living outside 1 mile	0	0	0	0	0	128	91	105	391	534
% students outside 1 mile	0	0	0	0	0	13	12	15	52	61
Teaching quality (% lessons)										
Outstanding	9	9	8	8	7	8	8	9	10	11
Good	40	41	40	41	42	52	63	76	79	82
Requires Improvement	45	44	47	46	47	36	26	13	10	7
Inadequate	6	6	5	5	4	4	3	2	1	0
Students										
Number of incidents	435	473	573	612	784	1,345	1,104	974	864	746
Student attendance (% classes)	90	91	91	92	92	92	93	93	94	95
Fixed term exclusions	26	21	25	25	23	159	142	104	98	91
Permanent exclusions	0	0	1	0	0	9	3	0	0	0
Teachers										
Number	97	97	96	92	96	69	63	69	77	85
Number on capability	0	0	1	0	1	40	13	10	0	0
Number with no sickness	86	91	87	85	90	58	53	65	75	78
Number on long term sick	1	1	2	1	3	17	13	3	2	1
Days lost	250	254	249	246	251	352	185	198	204	213
Support staff quality										
Number	101	102	101	98	97	60	59	61	73	75
Recruited	0	1	0	0	0	0	0	2	15	4
Lost through natural attrition	0	0	1	3	1	0	1	0	3	2
Managed out by capability	0	0	0	0	0	37	0	0	0	0
Number with no sickness	46	42	38	39	31	23	34	64	79	85
On long term sick (>20 days)	4	3	5	6	4	16	15	7	3	2
Days lost	326	311	298	301	315	791	350	120	104	91

Note: Figures are for the end of the academic year shown

Figure a5: Inner City 1 (Case 1) teaching resource allocation

Performance	04-05	05-06	06-07	07-08	08-09	09-10	10-11	11-12	12-13	13-14
Students per year										
Primary (Nursery to Year 2)	0	0	0	0	0	0	0	145	205	204
Primary (Year 3 to 6)	0	0	0	0	0	0	0	0	0	30
Secondary (Year 7 to 9)	792	798	797	797	819	684	460	410	442	525
Secondary (Year 10)	265	265	264	264	263	163	145	153	165	175
Secondary (Year 11)	265	265	264	264	265	132	128	137	143	175
Sixth Form (Year 12 to 13)	-	-	-	20	25	8	121	275	315	314
Total	1322	1328	1325	1345	1347	987	942	1120	1270	1423
Teachers per year										
Primary (Nursery to Year 2)	0	0	0	0	0	0	6	9	11	11
Primary (Year 3 to 6)	0	0	0	0	0	0	0	0	0	0
Secondary (Year 7 to 9)	61	61	61	57	59	46	31	26	28	31
Secondary (Year 10)	18	18	18	17	18	12	11	11	13	15
Secondary (Year 11)	18	18	17	17	18	10	10	12	14	17
Sixth Form (Year 12 to 13)	0	0	0	1	1	1	5	11	11	11
Total	97	97	96	92	96	69	63	69	77	85
Students per teacher										
Primary (Nursery to Year 2)	0	0	0	0	0	0	0	17	18	18
Primary (Year 3 to 6)	0	0	0	0	0	0	0	0	0	0
Secondary (Year 7 to 9)	13	13	13	14	14	15	15	16	16	17
Secondary (Year 10)	15	15	15	16	16	14	13	12	11	11
Secondary (Year 11)	15	15	16	15	14	13	12	11	10	10
Sixth Form (Year 12 to 13)	0	0	0	20	25	8	25	25	26	30
Average primary	0	0	0	0	0	0	16	17	18	18
Average secondary	14	14	15	15	15	14	13	13	12	13
Average	14	14	14	15	15	14	15	14	14	15
Average teacher salary (£000)										
Primary (Nursery to Year 2)	0	0	0	0	0	0	28	29	30	30
Primary (Year 3 to 6)	0	0	0	0	0	0	0	0	0	0
Secondary (Year 7 to 9)	37	37	38	38	37	38	38	42	45	45
Secondary (Year 10)	36	35	37	37	38	40	42	44	48	50
Secondary (Year 11)	38	39	42	40	39	41	42	48	55	62
Sixth Form (Year 12 to 13)	0	0	0	50	51	52	34	34	35	35
Total	37	38	38	37	38	33	34	36	38	40

Note: Figures are for the end of the academic year shown

Figure a6: Inner City 1 (Case 1) market served and needs

Market served and needs	04-05	05-06	06-07	07-08	08-09	09-10	10-11	11-12	12-13	13-14
Market served										
Students within 1 mile	1322	1328	1325	1345	1347	859	764	874	686	669
Students outside 1 mile	0	0	0	0	0	128	178	246	584	754
% outside 1 mile	0	0	0	0	0	13	19	22	46	53
Key order-winner (% customers)										
Location	100	100	100	100	100	62	41	36	27	23
Speed of admissions process	0	0	0	0	0	37	35	25	3	0
Academic product design	0	0	0	0	0	0	9	22	17	26
Non Academic product design	0	0	0	0	0	0	6	13	42	28
Winning students within 1 mile										
Location	100	100	100	100	100	98	84	67	48	43
Academic product design	Q	Q	Q	Q	Q	2	7	21	34	41
Non Academic product design	Q	Q	Q	Q	Q	Q	5	8	11	7
Front Office Customer service	Q	Q	Q	Q	Q	Q	4	4	7	9
Customer relationship	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Speed of admissions process	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Retaining customers within 1 mile										
Location	100	100	100	100	100	100	91	78	59	51
Academic product design	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Non Academic product design	Q	Q	Q	Q	Q	Q	4	12	33	39
Front Office Customer service	Q	Q	Q	Q	Q	Q	3	6	8	10
Customer relationship	Q	Q	Q	Q	Q	Q	2	4	Q	Q
Speed of admissions process	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Winning students outside 1 mile										
Location	-	-	-	-	-	Q	Q	Q	Q	Q
Academic product design	-	-	-	-	-	9	18	28	35	48
Non Academic product design	-	-	-	-	-	Q	Q	10	54	39
Front Office Customer service	-	-	-	-	-	Q	Q	Q	Q	Q
Customer relationship	-	-	-	-	-	Q	Q	Q	Q	Q
Speed of admissions process	-	-	-	-	-	91	82	62	11	13
Retaining customers outside 1 mile										
Location	-	-	-	-	-	-	Q	Q	Q	Q
Academic product design	-	-	-	-	-	-	41	44	46	64
Non Academic product design	-	-	-	-	-	-	Q	20	54	31
Front Office Customer service	-	-	-	-	-	-	Q	Q	Q	Q
Customer relationship	-	-	-	-	-	-	Q	5	Q	5
Speed of admissions process	-	-	-	-	-	-	59	31	Q	Q

Definitions:

Location	Location of academy site
Academic product design	The academic curriculum design and delivery
Non Academic product design	The non academic curriculum (including sport) design and delivery
Front Office Customer service	Customer service provided by front office employees
Customer relationship	Relationship between customers and front office employees
Speed of admissions process	Speed that admissions are processed and offers made to customers

Appendix 2: Case data for Inner City 2 (Case 2)

Figure a7: Inner City 2 (Case 2) competitor analysis

Performance	04-05	05-06	06-07	07-08	08-09	09-10	10-11	11-12	12-13	13-14
OfSTED Inspection (1-4)										
Inner City 2 (Case 2)	2	-	3	-	3	4	-	3	2	-
Academy 6	3	-	4	-	2	-	3	4	-	3
Academy 7	3	-	-	3	4	-	3	-	2	-
Academy 8	3	-	2	-	1	-	2	-	2	-
Academy 9	1	-	-	1	-	-	1	-	-	2
Academy 10	-	-	2	-	-	2	3	-	2	-
Exam results (% 5+ C or above)										
Inner City 2 (Case 2)	29	28	22	24	26	30	39	44	51	56
Academy 6	35	37	41	43	46	50	45	36	46	38
Academy 7	62	64	65	42	51	53	62	66	63	69
Academy 8	67	70	75	80	81	68	61	54	69	52
Academy 9	77	79	77	75	73	75	74	63	67	63
Academy 10	62	60	57	61	54	58	54	51	64	61
Progress measure (Maths)										
Inner City 2 (Case 2)	-	-	-	-	-	46	49	52	55	56
Academy 6	-	-	-	-	-	58	56	50	52	54
Academy 7	-	-	-	-	-	62	65	67	69	70
Academy 8	-	-	-	-	-	78	75	71	68	62
Academy 9	-	-	-	-	-	76	74	73	78	63
Academy 10	-	-	-	-	-	63	62	66	68	70
Progress measure (English)										
Inner City 2 (Case 2)	-	-	-	-	-	55	67	78	81	86
Academy 6	-	-	-	-	-	75	73	62	71	82
Academy 7	-	-	-	-	-	73	76	80	82	85
Academy 8	-	-	-	-	-	76	72	73	76	82
Academy 9	-	-	-	-	-	86	84	87	86	63
Academy 10	-	-	-	-	-	72	75	77	78	79
Revenue (£000)										
Inner City 2 (Case 2)	4,491	4,496	4,505	4,501	4,491	4,482	3,083	4,718	5,040	5,550
Academy 6	3,815	3,859	3,978	4,037	4,146	4,303	4,525	4,850	5,067	5,138
Academy 7	5,430	5,485	5,593	5,880	5,978	5,972	6,964	7,035	7,046	7,051
Academy 8	5,577	5,989	6,471	6,769	7,018	6,997	8,048	8,119	8,086	8,130
Academy 9	4,872	4,856	4,872	4,845	4,861	4,878	4,883	4,883	4,878	4,883
Academy 10	6,146	6,173	6,184	6,178	6,216	7,859	7,859	7,875	7,859	7,864
Primary students										
Inner City 2 (Case 2)	0	0	0	0	0	0	0	0	0	0
Academy 6	0	0	0	0	0	0	0	0	0	0
Academy 7	0	0	0	0	0	0	0	0	0	0
Academy 8	0	0	0	0	0	0	0	0	0	0
Academy 9	0	0	0	0	0	0	0	0	0	0
Academy 10	0	0	0	0	0	0	0	0	0	0
Secondary students										
Inner City 2 (Case 2)	998	999	1001	1000	998	996	685	785	812	845
Academy 6	704	712	734	745	765	794	835	895	935	948
Academy 7	1002	1012	1032	1085	1103	1102	1285	1298	1300	1301
Academy 8	1029	1105	1194	1249	1295	1291	1485	1498	1492	1500
Academy 9	899	896	899	894	897	900	901	901	900	901
Academy 10	1134	1139	1141	1140	1147	1450	1450	1453	1450	1451
Total	5766	5863	6001	6113	6205	6533	6641	6830	6889	6946
Market share (% students)										
Inner City 2 (Case 2)	17	17	17	16	16	15	10	11	12	12
Academy 6	12	12	12	12	12	12	13	13	14	14
Academy 7	17	17	17	18	18	17	19	19	19	19
Academy 8	18	19	20	20	21	20	22	22	22	22

Performance	04-05	05-06	06-07	07-08	08-09	09-10	10-11	11-12	12-13	13-14
Academy 9	16	15	15	15	14	14	14	13	13	13
Academy 10	20	19	19	19	18	22	22	21	21	21
Market share (% competitors)	-	-	-	-	96	88	55	62	67	67
Sixth form students										
Inner City 2 (Case 2)	0	0	0	0	0	0	0	200	200	200
Academy 6	0	0	0	0	0	0	0	0	0	0
Academy 7	0	0	0	0	0	0	0	0	0	100
Academy 8	0	0	0	0	0	0	0	0	0	0
Academy 9	0	0	0	0	0	0	0	0	0	0
Academy 10	0	0	0	0	0	0	0	0	0	0
Primary student capacity (number)										
Inner City 2 (Case 2)	0	0	0	0	0	0	0	0	0	0
Academy 6	0	0	0	0	0	0	0	0	0	0
Academy 7	0	0	0	0	0	0	0	0	0	0
Academy 8	0	0	0	0	0	0	0	0	0	0
Academy 9	0	0	0	0	0	0	0	0	0	0
Academy 10	0	0	0	0	0	0	0	0	0	0
Secondary student capacity (number)										
Inner City 2 (Case 2)	1000	1000	1000	1000	1000	1000	1000	1250	1250	1250
Academy 6	800	800	800	800	800	800	950	950	950	950
Academy 7	1100	1100	1100	1100	1100	1100	1300	1300	1300	1300
Academy 8	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500
Academy 9	900	900	900	900	900	900	900	900	900	900
Academy 10	1150	1150	1150	1150	1450	1450	1450	1450	1450	1450
Sixth form student capacity (number)										
Inner City 2 (Case 2)	0	0	0	0	0	0	0	200	200	200
Academy 6	0	0	0	0	0	0	0	0	0	0
Academy 7	0	0	0	0	0	0	0	0	0	100
Academy 8	0	0	0	0	0	0	0	0	0	0
Academy 9	0	0	0	0	0	0	0	0	0	0
Academy 10	0	0	0	0	0	0	0	0	0	0
Primary teacher capacity (number)										
Inner City 2 (Case 2)	0	0	0	0	0	0	0	0	0	0
Academy 6	0	0	0	0	0	0	0	0	0	0
Academy 7	0	0	0	0	0	0	0	0	0	0
Academy 8	0	0	0	0	0	0	0	0	0	0
Academy 9	0	0	0	0	0	0	0	0	0	0
Academy 10	0	0	0	0	0	0	0	0	0	0
Secondary teacher capacity (number)										
Inner City 2 (Case 2)	67	67	68	65	65	65	46	52	56	57
Academy 6	43	43	44	45	46	48	51	54	57	57
Academy 7	61	61	63	66	67	67	78	79	79	79
Academy 8	62	67	72	76	78	78	90	91	90	91
Academy 9	54	54	54	54	54	55	55	55	55	55
Academy 10	69	69	69	69	70	88	88	88	88	88
Sixth form teacher capacity (number)										
Inner City 2 (Case 2)	0	0	0	0	0	0	0	12	12	12
Academy 6	0	0	0	0	0	0	0	0	0	0
Academy 7	0	0	0	0	0	0	0	0	0	6
Academy 8	0	0	0	0	0	0	0	0	0	0
Academy 9	0	0	0	0	0	0	0	0	0	0
Academy 10	0	0	0	0	0	0	0	0	0	0

Note: Progress measures were not introduced into the UK education sector until 2008-09

Figure a8: Inner City 2 (Case 2) student ethnicity competitor analysis

Student ethnicity (% total)	04-05	05-06	06-07	07-08	08-09	09-10	10-11	11-12	12-13	13-14
Inner City 2 (Case 2)										
Black or Black British	0.0	0.0	0.0	0.0	0.0	0.0	1.4	7.4	10.5	11.0
Chinese	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other	1.1	2.0	6.4	10.0	8.7	8.5	11.9	11.5	10.7	11.0
White	73.8	73.5	71.4	68.5	65.8	64.6	59.5	56.0	53.9	50.5
Asian or Asian British	10.1	9.4	9.5	9.7	11.2	9.4	10.5	10.0	8.7	9.5
Mixed	15.0	15.1	12.7	11.8	14.3	17.5	16.7	15.1	16.2	18.0
Not stated	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Academy 6										
Black or Black British	0.7	0.8	1.7	2.7	1.8	-0.3	2.8	3.3	4.8	5.7
Chinese	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.2
Other	1.0	1.8	5.2	8.7	11.1	10.1	10.4	11.1	10.9	11.0
White	83.9	81.7	79.7	77.8	76.7	73.8	72.7	68.8	66.7	65.7
Asian or Asian British	6.4	6.6	5.6	5.6	6.8	7.7	8.6	9.8	10.6	9.8
Mixed	0.0	0.0	0.0	0.9	1.8	2.9	2.7	3.9	5.3	5.8
Not stated	8.0	9.1	7.8	4.3	1.8	5.8	2.8	2.8	1.7	1.8
Academy 7										
Black or Black British	0.0	0.0	0.6	1.8	2.4	2.8	3.7	4.6	5.8	6.7
Chinese	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.3
Other	5.1	5.9	7.5	8.7	11.1	10.1	10.6	11.2	11.0	11.0
White	80.1	78.8	75.8	74.6	72.4	68.9	66.9	64.2	60.0	58.8
Asian or Asian British	6.1	6.1	7.1	7.1	6.7	7.7	8.9	10.0	12.9	15.0
Mixed	0.0	0.0	0.0	0.9	2.5	3.1	2.7	4.1	5.3	6.0
Not stated	8.7	9.2	9.0	6.9	4.9	7.4	7.2	5.7	4.8	2.2
Academy 8										
Black or Black British	0.0	0.0	0.8	1.7	2.8	3.5	5.7	6.8	7.9	7.8
Chinese	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.1	0.1	0.3
Other	4.2	5.1	6.2	7.0	10.0	9.5	10.6	11.2	10.9	11.2
White	82.7	80.7	78.7	76.7	73.7	71.7	68.7	66.7	63.7	61.7
Asian or Asian British	6.1	6.1	7.1	7.1	6.7	7.7	8.9	10.0	12.9	15.0
Mixed	0.0	0.0	0.0	0.9	2.0	3.1	2.7	4.1	4.0	3.7
Not stated	7.0	8.1	7.2	6.6	4.8	4.3	3.4	1.1	0.5	0.3
Academy 9										
Black or Black British	0.0	0.0	0.0	0.7	0.0	0.0	1.4	1.8	0.7	1.6
Chinese	0.0	0.0	0.2	0.0	0.0	0.0	0.3	0.0	0.0	0.1
Other	4.5	6.2	9.5	10.7	12.3	12.2	13.6	14.6	13.8	15.6
White	81.7	82.7	79.7	78.7	76.7	73.7	71.7	68.7	66.7	63.7
Asian or Asian British	6.1	6.1	7.1	7.1	6.7	7.7	8.9	10.0	12.9	15.0
Mixed	0.0	0.0	0.0	0.9	2.0	3.1	2.7	4.1	4.0	3.7
Not stated	7.7	5.0	3.5	1.9	2.3	3.3	1.4	0.8	1.9	0.3
Academy 10										
Black or Black British	0.0	0.0	1.0	2.7	2.8	1.9	2.7	3.8	4.7	4.6
Chinese	0.0	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Other	4.4	8.9	10.1	10.4	12.1	11.2	13.4	14.6	13.9	15.6
White	79.0	79.9	76.9	75.6	74.2	68.2	63.8	61.1	58.8	58.1
Asian or Asian British	6.1	6.1	7.1	7.1	6.7	7.7	8.9	10.0	12.9	15.0
Mixed	0.0	0.0	0.0	0.9	2.0	3.1	2.7	4.1	4.0	3.7
Not stated	10.5	4.9	4.7	3.3	2.2	7.9	8.5	6.4	5.7	2.9

Note: Competitors identified through analysis of 'school choices' on secondary school applications

Figure a9: Inner City 2 (Case 2) year 11 student leavers competitor analysis

Destination (% Year 11 leavers)	04-05	05-06	06-07	07-08	08-09	09-10	10-11	11-12	12-13	13-14
Inner City 2 (Case 2)										
Stayed at school (sixth form)	0	0	0	0	0	23	33	40	45	49
Sixth form college (other provider)	15	9	10	4	10	1	1	1	1	4
Further education college	35	36	32	25	27	29	32	34	31	27
Apprenticeship	9	10	13	14	12	7	4	1	3	4
Left education	30	32	31	44	40	28	20	15	12	10
Unknown	11	13	14	13	11	12	10	9	8	6
Academy 6										
Stayed at school (sixth form)	44	42	40	41	30	31	32	34	36	37
Sixth form college (other provider)	15	14	15	16	18	19	21	23	22	23
Further education college	30	29	27	26	23	25	26	27	25	24
Apprenticeship	2	5	7	6	16	12	7	5	4	2
Left education	9	9	9	10	11	13	14	11	10	8
Unknown	0	1	2	1	2	0	0	0	3	6
Academy 7										
Stayed at school (sixth form)	39	40	39	41	42	43	46	47	51	50
Sixth form college (other provider)	10	7	8	9	8	6	7	8	7	6
Further education college	41	42	41	40	40	39	38	36	35	34
Apprenticeship	2	2	2	3	3	2	2	3	2	4
Left education	6	7	7	3	2	4	2	2	2	3
Unknown	2	2	3	4	5	6	5	4	3	3
Academy 8										
Stayed at school (sixth form)	0	2	3	5	17	23	32	36	43	47
Sixth form college (other provider)	14	14	15	16	17	16	15	14	13	14
Further education college	46	45	42	43	40	39	35	32	29	28
Apprenticeship	25	26	25	24	17	15	12	10	7	3
Left education	14	13	14	12	9	7	6	6	5	4
Unknown	1	0	1	0	0	0	0	2	3	4
Academy 9										
Stayed at school (sixth form)	53	52	52	55	55	50	48	53	56	58
Sixth form college (other provider)	21	22	23	22	21	20	18	16	14	11
Further education college	21	22	23	23	24	24	23	22	23	24
Apprenticeship	2	2	2	0	0	6	9	8	6	3
Left education	3	2	0	0	0	0	2	1	1	3
Unknown	0	0	0	0	0	0	0	0	0	1
Academy 10										
Stayed at school (sixth form)	59	60	65	62	63	63	64	66	67	66
Sixth form college (other provider)	11	10	10	9	9	8	8	7	6	5
Further education college	21	22	22	21	20	18	19	20	19	18
Apprenticeship	6	6	3	5	5	4	4	3	3	3
Left education	3	2	0	2	2	7	5	4	3	5
Unknown	0	0	0	1	1	0	0	0	2	3

Note: Competitors identified through analysis of 'school choices' on secondary school applications

Figure a10: Inner City 2 (Case 2) performance journey

Performance	04-05	05-06	06-07	07-08	08-09	09-10	10-11	11-12	12-13	13-14
OfSTED Inspection (1-4)										
Achievement of pupils	2	-	3	-	3	3	-	3	2	-
Teaching quality	2	-	3	-	3	3	-	3	1	-
Behaviour and safety	2	-	2	-	2	4	-	2	1	-
Leadership and management	2	-	2	-	2	4	-	2	1	-
Overall	2	-	3	-	3	4	-	3	2	-
Exam results										
Secondary (% 5+ C or above)	29	28	22	24	26	30	39	44	51	56
Secondary (% 5+ B or above)	0	0	0	0	0	0	0	0	2	4
Secondary (% 5+ A or above)	0	0	0	0	0	0	0	0	0	1
Revenue (£000)										
Teaching	4,491	4,496	4,505	4,501	4,491	4,482	3,083	4,433	4,555	4,703
Non-teaching	0	0	0	0	0	0	0	0,285	0,485	0,847
Total	4,491	4,496	4,505	4,501	4,491	4,482	3,083	4,718	5,040	5,550
Costs (£000)										
Teaching	3,928	3,928	4,065	3,939	3,898	3,993	3,344	3,528	3,937	4,100
Teaching years 7-9	2,012	2,012	2,055	1,950	1,910	1,880	1,425	1,264	1,468	1,552
Teaching year 10	970	982	1,018	1,031	1,018	1,082	862	783	925	955
Teaching year 11	946	934	992	958	970	1,031	1,057	835	874	899
% of teaching costs by year 11	24	24	24	24	25	26	32	23	24	24
Non-teaching	0,541	0,544	0,547	0,560	0,590	0,890	0,862	0,738	0,716	0,657
Total	4,469	4,472	4,612	4,499	4,488	4,883	4,206	4,266	4,653	4,757
Operating profit (£000)	0,022	0,024	(0,107)	0,002	0,003	(0,401)	(1,123)	0,452	0,387	0,793
Students Per year										
Secondary	998	999	1001	1000	998	996	685	785	812	845
Sixth form	0	0	0	0	0	0	0	200	200	200
Total	998	999	1001	1000	998	996	685	985	1012	1045
Available secondary capacity	1000	1000	1000	1000	1000	1000	1000	1250	1250	1250
Available sixth form capacity	0	0	0	0	0	0	0	200	200	200
Total available capacity	1000	1000	1000	1000	1000	1000	1000	1450	1450	1450
Number of secondary applications	202	201	199	200	202	209	211	203	215	245
Applications (% available capacity)	101	101	100	100	101	105	146	135	130	132
Available Spaces in Year 7	200	200	200	200	200	200	145	150	165	185
% of applications outside 1 mile	0	0	0	0	1	7	13	19	53	56
% total capacity filled	100	100	100	100	100	100	69	68	70	72
Rejected applications within 1 mile										
Secondary	0	1	0	2	0	5	45	37	59	65
Sixth Form	0	0	0	0	0	0	0	45	64	74
Total	0	1	0	2	0	5	45	82	123	139
Rejected applications outside 1m										
Secondary	0	0	1	0	3	0	0	0	6	1
Sixth Form	0	0	0	0	0	0	0	19	21	29
Total	0	0	0	0	0	0	0	14	27	30
Competitiveness (secondary)										
Students living within 1 mile	970	960	990	981	951	927	611	847	749	543
Students living outside 1 mile	28	39	11	19	47	69	74	138	263	502
% students outside 1 mile	3	4	1	2	5	7	11	14	26	48
Teaching quality (% lessons)										
Outstanding	8	8	7	7	6	7	7	8	9	10

Performance	04-05	05-06	06-07	07-08	08-09	09-10	10-11	11-12	12-13	13-14
Good	41	42	41	42	43	53	64	77	80	83
Requires Improvement	44	43	46	45	46	35	25	12	9	6
Inadequate	7	7	6	6	5	5	4	3	2	1
Student quality										
Number of incidents	585	485	585	624	796	1357	1116	986	876	758
Student attendance (% classes)	90	90	90	91	92	92	93	93	94	94
Fixed term exclusions	29	25	29	29	27	63	146	108	102	95
Permanent exclusions	2	0	1	0	1	10	4	2	1	0
Teachers quality										
Number	67	67	68	65	65	65	46	64	68	69
Number with no sickness	93	89	94	90	88	93	61	56	68	78
Number on long term sick	4	2	2	3	2	4	18	14	4	3
Days lost	258	257	261	256	253	258	359	192	205	211
Teachers recruited										
Year 7-9	0	0	0	0	0	0	1	3	2	0
Year 10	0	1	0	0	1	0	0	2	0	0
Year 11	0	0	1	0	1	0	5	0	0	0
Sixth Form	0	0	0	0	0	0	0	12	1	0
Teachers managed out by capability										
Year 7-9	0	0	0	0	0	10	0	0	0	0
Year 10	0	1	0	0	0	0	0	0	0	0
Year 11	0	0	0	0	0	3	0	0	0	0
Sixth Form	0	0	0	0	0	0	0	0	0	0
Teachers lost through natural attrition										
Year 7-9	0	0	3	0	2	3	0	0	0	0
Year 10	0	0	1	0	0	0	0	0	0	0
Year 11	0	0	0	0	0	3	0	1	1	0
Sixth Form	0	0	0	0	0	0	0	0	1	0
Support staff quality										
Number	70	69	70	69	66	65	30	28	27	29
Recruited	0	1	1	1	0	0	0	8	0	3
Lost through natural attrition	0	2	0	1	2	1	15	0	1	1
Managed out by capability	0	0	0	1	1	0	20	10	0	0
Number with no sickness	4	5	4	6	7	5	17	14	12	8
On long term sick (>20 days)	312	327	312	299	302	316	356	460	351	121
Days lost	0	1	1	1	0	0	0	8	0	3

Note: Figures are for the end of the academic year shown

216

Figure a11: Inner City 2 (Case 2) teaching resource allocation

Performance	04-05	05-06	06-07	07-08	08-09	09-10	10-11	11-12	12-13	13-14
Students per year										
Secondary (Year 7 to 9)	600	600	600	600	600	600	400	450	500	550
Secondary (Year 10)	200	200	200	200	200	200	185	175	175	175
Secondary (Year 11)	198	199	201	200	198	196	100	160	137	120
Sixth Form (Year 12 to 13)	0	0	0	0	0	0	0	200	200	200
Total	998	999	1001	1000	998	996	685	985	1012	1045
Teachers per year										
Secondary (Year 7 to 9)	43	43	43	40	40	38	25	26	29	31
Secondary (Year 10)	12	12	13	12	12	13	13	13	15	15
Secondary (Year 11)	12	12	12	13	13	14	8	13	12	11
Sixth Form (Year 12 to 13)	0	0	0	0	0	0	0	12	12	12
Total	67	67	68	65	65	65	46	64	68	69
Students per teacher										
Secondary (Year 7 to 9)	14	14	14	15	15	16	16	17	17	18
Secondary (Year 10)	16	16	16	17	17	15	14	13	12	12
Secondary (Year 11)	16	16	17	16	15	14	13	12	11	11
Sixth Form (Year 12 to 13)	0	0	0	0	0	0	0	26	27	31
Average	15	15	15	16	16	15	16	15	15	16
Average teacher salary (£000)										
Secondary (Year 7 to 9)	34	34	35	35	34	35	35	39	42	42
Secondary (Year 10)	33	32	34	34	35	37	39	41	45	47
Secondary (Year 11)	35	36	39	37	36	38	39	45	52	59
Sixth Form (Year 12 to 13)	0	0	0	0	0	0	0	33	35	37
Total	34	34	36	35	35	37	38	40	44	46

Note: Figures are for the end of the academic year shown

Figure a12: Inner City 2 (Case 2) market served and needs (2004-13)

Market served and needs	04-05	05-06	06-07	07-08	08-09	09-10	10-11	11-12	12-13	13-14
Market served										
Students within 1 mile	970	960	990	981	951	927	611	847	749	543
Students outside 1 mile	28	39	11	19	47	69	74	138	263	502
% outside 1 mile	3	4	1	2	5	7	11	14	26	48
Key order-winner (% customers)										
Location	51	51	51	51	51	64	51	44	36	33
Speed of admissions process	49	49	49	49	49	36	34	25	3	0
Academic product design	0	0	0	0	0	0	9	18	18	38
Non Academic product design	0	0	0	0	0	0	6	13	43	19
Winning students within 1 mile										
Location	100	100	100	100	100	97	88	72	54	49
Academic product design	Q	Q	Q	Q	Q	3	7	21	34	37
Non Academic product design	Q	Q	Q	Q	Q	Q	4	5	9	10
Front Office Customer service	Q	Q	Q	Q	Q	Q	1	2	3	4
Customer relationship	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Speed of admissions process	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Retaining customers within 1 mile										
Location	100	100	100	100	100	100	93	82	65	61
Academic product design	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Non Academic product design	Q	Q	Q	Q	Q	Q	2	10	28	34
Front Office Customer service	Q	Q	Q	Q	Q	Q	3	6	7	5
Customer relationship	Q	Q	Q	Q	Q	Q	2	4	Q	Q
Speed of admissions process	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Winning students outside 1 mile										
Location	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Academic product design	Q	Q	Q	Q	Q	10	15	16	37	51
Non Academic product design	Q	Q	Q	Q	Q	Q	Q	10	52	36
Front Office Customer service	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Customer relationship	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Speed of admissions process	100	100	100	100	100	90	85	74	11	13
Retaining customers outside 1 mile										
Location	Q	Q	Q	Q	Q	Q	Q	Q	3	2
Academic product design	Q	Q	Q	Q	Q	Q	35	30	46	62
Non Academic product design	Q	Q	Q	Q	Q	Q	20	51	31	
Front Office Customer service	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Customer relationship	Q	Q	Q	Q	Q	Q	Q	5	Q	5
Speed of admissions process	100	100	100	100	100	100	65	45	Q	Q

Definitions:

Location	Location of academy site
Academic product design	The academic curriculum design and delivery
Non Academic product design	The non academic curriculum (including sport) design and delivery
Front Office Customer service	Customer service provided by front office employees
Customer relationship	Relationship between customers and front office employees
Speed of admissions process	Speed that admissions are processed and offers made to customers

Appendix 3: Case data for Urban 1 (Case 3)

Figure a13: Urban 1 (Case 3) Competitor analysis

Performance	04-05	05-06	06-07	07-08	08-09	09-10	10-11	11-12	12-13	13-14
OfSTED Inspection (1-4)										
Urban 1 (Case 3)	4	3	3	3	4	-	3	3	-	1
Academy 11	2	-	3	-	4	-	1	-	1	-
Academy 12	3	2	-	2	-	2	-	2	-	3
Academy 13	3	-	3	-	3	-	3	2	-	3
Academy 14	-	2	-	2	3	4	-	3	-	3
Academy 15	4	-	3	-	3	3	4	-	2	-
Exam results (% 5+ C or above)										
Urban 1 (Case 3)	19	21	20	21	31	26	46	62	64	69
Academy 11	32	33	38	30	43	61	75	76	74	75
Academy 12	50	51	63	49	63	64	67	64	66	62
Academy 13	40	39	35	40	46	51	57	75	80	69
Academy 14	39	37	38	36	33	31	41	45	63	56
Academy 15	29	28	27	33	37	38	35	49	52	50
Progress measure (Maths)										
Urban 1 (Case 3)	-	-	-	-	-	46	54	64	80	86
Academy 11	-	-	-	-	-	64	69	75	84	85
Academy 12	-	-	-	-	-	84	83	79	76	64
Academy 13	-	-	-	-	-	78	82	85	86	62
Academy 14	-	-	-	-	-	62	68	71	73	69
Academy 15	-	-	-	-	-	51	55	58	55	53
Progress measure (English)										
Urban 1 (Case 3)	-	-	-	-	-	41	57	68	73	78
Academy 11	-	-	-	-	-	68	74	75	76	77
Academy 12	-	-	-	-	-	81	78	76	72	69
Academy 13	-	-	-	-	-	79	85	87	91	68
Academy 14	-	-	-	-	-	66	71	75	84	58
Academy 15	-	-	-	-	-	56	58	62	61	63
Revenue (£000)										
Urban 1 (Case 3)	2,622	2,624	2,634	2,658	2,724	6,720	5,805	6,277	6,852	7,291
Academy 11	3,946	3,903	3,873	3,829	3,695	5,749	6,391	6,754	6,915	7,011
Academy 12	4,976	4,980	4,982	4,983	4,981	4,977	4,974	5,735	5,992	6,072
Academy 13	4,672	4,693	4,702	4,672	4,572	4,589	5,312	5,066	4,731	4,352
Academy 14	4,846	4,838	4,842	4,769	3,782	3,306	2,965	2,544	2,198	2,152
Academy 15	4,262	4,293	4,725	4,738	4,842	4,816	4,453	5,162	5,288	5,195
Primary students										
Urban 1 (Case 3)	0	0	0	0	0	494	475	439	437	464
Academy 11	0	0	0	0	0	0	0	0	0	60
Academy 12	0	0	0	0	0	0	0	0	0	0
Academy 13	0	0	0	0	0	0	0	0	0	0
Academy 14	0	0	0	0	0	0	0	0	0	0
Academy 15	0	0	0	0	0	0	0	0	0	0
Secondary students										
Urban 1 (Case 3)	874	875	878	886	908	925	714	851	993	1,002
Academy 11	912	902	895	885	854	1,104	1,219	1,287	1,300	1,300

Performance	04-05	05-06	06-07	07-08	08-09	09-10	10-11	11-12	12-13	13-14
Academy 12	1,150	1,150	1,150	1,150	1,150	1,150	1,150	1,150	1,150	1,149
Academy 13	894	899	901	894	871	875	1,042	987	931	875
Academy 14	1,120	1,118	1,119	1,102	874	764	674	573	483	475
Academy 15	985	992	1,092	1,095	1,119	1,113	1,029	1,193	1,132	1,104
Total	5,935	5,936	6,035	6,012	5,776	5,931	5,828	6,041	5,989	5,905
Market share (% students)										
Urban 1 (Case 3)	15	15	15	15	16	16	12	14	17	17
Academy 11	15	15	15	15	15	19	21	21	22	22
Academy 12	19	19	19	19	20	19	20	19	19	19
Academy 13	15	15	15	15	15	15	18	16	16	15
Academy 14	19	19	19	18	15	13	12	9	8	8
Academy 15	17	17	18	18	19	19	18	20	19	19
Market share (% competitors)	87	87	86	87	92	92	72	83	98	100
Sixth form students										
Urban 1 (Case 3)	0	0	0	0	0	0	0	0	97	127
Academy 11	0	0	0	0	0	242	278	295	321	345
Academy 12	0	0	0	0	0	0	0	189	253	274
Academy 13	200	200	200	200	200	200	200	198	175	141
Academy 14	0	0	0	0	0	0	12	16	27	24
Academy 15	0	0	0	0	0	0	0	0	97	104
Primary student capacity (number)										
Urban 1 (Case 3)	0	0	0	0	0	520	520	520	520	520
Academy 11	0	0	0	0	0	0	0	0	0	450
Academy 12	0	0	0	0	0	0	0	0	0	0
Academy 13	0	0	0	0	0	0	0	0	0	0
Academy 14	0	0	0	0	0	0	0	0	0	0
Academy 15	0	0	0	0	0	0	0	0	0	0
Secondary student capacity (number)										
Urban 1 (Case 3)	1,000	1,000	1,000	1,000	1,000	1,200	1,200	1,200	1,200	1,200
Academy 11	950	950	950	950	950	1,300	1,300	1,300	1,300	1,300
Academy 12	1,150	1,150	1,150	1,150	1,150	1,150	1,150	1,150	1,150	1,150
Academy 13	1,250	1,250	1,250	1,250	1,250	1,250	1,250	1,250	1,250	1,250
Academy 14	1,120	1,120	1,120	1,120	1,120	1,120	850	850	850	850
Academy 15	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,400	1,400
Sixth form student capacity (number)										
Urban 1 (Case 3)	0	0	0	0	0	0	0	0	200	200
Academy 11	0	0	0	0	0	400	400	400	400	400
Academy 12	0	0	0	0	0	0	0	250	250	250
Academy 13	200	200	200	200	200	200	200	200	200	200
Academy 14	0	0	0	0	0	0	300	300	300	300
Academy 15	0	0	0	0	0	0	0	0	250	250
Primary teacher capacity (number)										
Urban 1 (Case 3)	0	0	0	0	0	27	26	26	26	27
Academy 11	0	0	0	0	0	0	0	0	0	3
Academy 12	0	0	0	0	0	0	0	0	0	0
Academy 13	0	0	0	0	0	0	0	0	0	0
Academy 14	0	0	0	0	0	0	0	0	0	0
Academy 15	0	0	0	0	0	0	0	0	0	0

Performance	04-05	05-06	06-07	07-08	08-09	09-10	10-11	11-12	12-13	13-14
Secondary teacher capacity (number)										
Urban 1 (Case 3)	69	69	69	69	70	68	61	62	63	70
Academy 11	68	67	66	66	63	82	90	95	96	96
Academy 12	85	85	85	85	85	85	85	85	85	85
Academy 13	66	67	67	66	65	65	77	73	69	65
Academy 14	83	83	83	82	65	57	50	42	36	35
Academy 15	73	73	81	81	83	82	76	88	84	82
Sixth form teacher capacity (number)										
Urban 1 (Case 3)	0	0	0	0	0	0	0	0	7	10
Academy 11	0	0	0	0	0	12	13	14	15	16
Academy 12	0	0	0	0	0	0	0	9	12	13
Academy 13	10	10	10	10	10	10	10	9	8	7
Academy 14	0	0	0	0	0	0	1	1	2	1
Academy 15	0	0	0	0	0	0	0	0	5	5

Note: Progress measures were not introduced into the UK education sector until 2008-09

Figure a14: Urban 1 (Case 3) student ethnicity competitor analysis

Student ethnicity (% total)	04-05	05-06	06-07	07-08	08-09	09-10	10-11	11-12	12-13	13-14
Urban 1 (Case 3)										
Black or Black British	19.0	20.0	22.0	23.0	28.0	42.0	53.0	48.0	33.0	33.0
Chinese	0.0	0.0	0.0	0.0	1.0	0.0	2.0	4.0	18.0	23.0
White	68.0	67.0	66.0	66.0	60.0	47.0	32.0	30.0	24.0	18.0
Arab or any other	0.0	0.0	0.0	0.0	1.0	1.0	4.0	6.0	10.0	11.0
Asian or Asian British	0.0	0.0	0.0	0.0	0.0	1.0	1.0	5.0	8.0	9.0
Mixed	7.0	7.0	7.0	6.0	6.0	6.0	6.0	6.0	6.0	5.0
Not stated	7.0	7.0	6.0	6.0	5.0	4.0	3.0	2.0	2.0	2.0
Academy 11										
Black or Black British	11.0	14.0	14.0	15.0	15.0	17.0	20.0	22.0	24.0	24.0
Chinese	0.0	0.0	2.0	2.0	3.0	2.0	3.0	6.0	13.0	17.0
White	71.0	69.0	67.0	65.0	62.0	56.0	44.0	36.0	26.0	21.0
Arab or any other	1.0	2.0	2.0	3.0	2.0	6.0	5.0	7.0	9.0	8.0
Asian or Asian British	2.0	3.0	3.0	4.0	5.0	9.0	14.0	19.0	20.0	22.0
Mixed	7.0	7.0	7.0	7.0	7.0	7.0	8.0	7.0	6.0	6.0
Not stated	9.0	6.0	6.0	5.0	7.0	4.0	7.0	4.0	3.0	3.0
Academy 12										
Black or Black British	4.0	5.0	6.0	6.0	6.0	6.0	6.0	6.0	5.0	5.0
Chinese	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.0
White	65.0	62.0	61.0	59.0	59.0	59.0	60.0	62.0	63.0	63.0
Arab or any other	5.0	5.0	6.0	6.0	6.0	7.0	6.0	5.0	1.0	1.0
Asian or Asian British	8.0	9.0	9.0	9.0	9.0	8.0	7.0	7.0	7.0	6.0
Mixed	11.0	14.0	13.0	15.0	16.0	15.0	16.0	15.0	18.0	19.0
Not stated	8.0	6.0	6.0	6.0	5.0	6.0	6.0	6.0	6.0	6.0
Academy 13										
Black or Black British	4.0	5.0	5.0	5.0	6.0	6.0	6.0	6.0	7.0	8.0
Chinese	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	2.0
White	75.0	68.0	65.0	62.0	60.0	56.0	54.0	51.0	50.0	46.0
Arab or any other	0.0	0.0	0.0	0.0	2.0	3.0	5.0	7.0	7.0	6.0
Asian or Asian British	1.0	7.0	7.0	7.0	7.0	8.0	8.0	8.0	9.0	9.0
Mixed	18.0	17.0	19.0	21.0	19.0	20.0	19.0	19.0	16.0	18.0
Not stated	3.0	7.0	7.0	6.0	6.0	6.0	6.0	5.0	6.0	6.0
Academy 14										
Black or Black British	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	8.0	8.0
Chinese	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
White	67.0	65.0	64.0	63.0	61.0	60.0	59.0	59.0	58.0	56.0
Arab or any other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.0	1.0
Asian or Asian British	1.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Mixed	20.0	22.0	24.0	24.0	26.0	26.0	27.0	27.0	28.0	29.0
Not stated	5.0	5.0	5.0	5.0	5.0	5.0	5.0	4.0	4.0	4.0
Academy 15										
Black or Black British	4.0	4.0	4.0	4.0	4.0	4.0	5.0	5.0	5.0	5.0
Chinese	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
White	75.0	74.0	72.0	71.0	69.0	68.0	66.0	65.0	63.0	62.0
Arab or any other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Asian or Asian British	1.0	1.0	1.0	2.0	2.0	2.0	2.0	3.0	3.0	3.0
Mixed	18.0	19.0	21.0	21.0	23.0	23.0	24.0	25.0	26.0	26.0
Not stated	3.0	2.0	2.0	2.0	2.0	2.0	3.0	3.0	3.0	3.0

Note: Competitors identified through analysis of 'school choices' on secondary school applications

Figure a15: Urban 1 (Case 3) year 11 student leavers competitor analysis

Destination (% Year 11 leavers)	04-05	05-06	06-07	07-08	08-09	09-10	10-11	11-12	12-13	13-14
Urban 1 (Case 3)										
Stayed at school (sixth form)	0	0	0	0	0	0	0	0	24	52
Sixth form college (other provider)	0	0	0	0	0	0	0	1	2	3
Further education college	0	0	0	0	8	11	15	22	26	29
Apprenticeship	35	34	35	32	41	49	50	48	25	5
Left education	36	35	38	42	36	24	21	17	12	7
Unknown	28	30	26	25	17	18	15	13	11	4
Academy 11										
Stayed at school (sixth form)	0	0	0	0	0	18	32	39	42	54
Sixth form college (other provider)	0	0	0	0	0	0	2	3	4	1
Further education college	34	38	40	34	30	32	33	32	29	29
Apprenticeship	14	5	3	14	27	14	5	7	11	4
Left education	34	35	36	33	27	20	15	10	8	6
Unknown	20	24	23	21	18	16	13	9	6	6
Academy 12										
Stayed at school (sixth form)	0	0	0	0	0	0	0	15	24	31
Sixth form college (other provider)	42	43	41	38	41	44	50	30	20	8
Further education college	28	25	24	22	20	21	19	16	20	29
Apprenticeship	22	23	25	28	29	27	26	24	22	21
Left education	6	7	9	11	8	7	4	5	6	4
Unknown	3	3	0	0	3	0	0	8	6	5
Academy 13										
Stayed at school (sixth form)	35	37	39	40	38	42	45	48	53	59
Sixth form college (other provider)	6	7	8	8	9	10	12	13	11	12
Further education college	19	21	20	20	18	16	15	15	17	16
Apprenticeship	18	19	20	17	20	18	15	12	8	0
Left education	10	5	0	2	1	0	0	0	0	4
Unknown	12	11	13	13	14	14	13	12	11	9
Academy 14										
Stayed at school (sixth form)	0	0	0	0	0	0	21	27	29	30
Sixth form college (other provider)	0	1	1	3	6	7	2	6	16	19
Further education college	41	43	44	42	40	41	39	37	36	35
Apprenticeship	25	24	22	23	21	20	16	13	8	3
Left education	34	32	33	31	30	29	22	17	11	7
Unknown	0	0	0	1	3	3	0	0	0	6
Academy 15										
Stayed at school (sixth form)	0	0	0	0	0	0	0	0	18	30
Sixth form college (other provider)	25	27	30	29	27	25	21	18	17	16
Further education college	40	41	37	35	33	35	36	35	36	34
Apprenticeship	4	6	7	7	11	15	22	28	13	9
Left education	18	16	15	17	20	17	12	8	6	2
Unknown	14	11	12	13	10	9	10	12	8	7

Note: Competitors identified through analysis of 'school choices' on secondary school applications

223

Figure a16: Urban 1 (Case 3) performance journey

Performance	04-05	05-06	06-07	07-08	08-09	09-10	10-11	11-12	12-13	13-14
OfSTED Inspection (1-4)										
Achievement of pupils	4	3	3	3	3	-	3	3	-	1
Teaching quality	4	3	3	3	3	-	3	3	-	1
Behaviour and safety	4	3	3	3	3	-	3	3	-	1
Leadership and management	4	3	3	3	4	-	2	2	-	1
Overall	4	3	3	3	4	-	3	3	-	1
Exam results										
Primary (% level 4 or above)	-	-	-	-	-	-	34	57	78	80
Secondary (% 5+ C or above)	19	21	20	21	31	26	46	62	64	69
Secondary (% 5+ B or above)	0	0	0	0	0	5	9	13	14	19
Secondary (% 5+ A or above)	0	0	0	0	0	1	2	5	6	8
Revenue (£000)										
Teaching	2,622	2,624	2,634	2,658	2,724	6,632	5,703	6,113	6,665	7,086
Non-teaching	0	0	0	0	0	88	102	164	187	205
Total	2,622	2,624	2,634	2,658	2,724	6,720	5,805	6,277	6,852	7,291
Costs (£000)										
Teaching	2,415	2,553	2,691	2,622	2,625	2,850	2,914	2,992	3,456	4,151
Teaching years 7-9	1,467	1,569	1,670	1,615	1,613	1,685	1,559	1,562	1,839	2,194
Teaching year 10	489	523	557	538	538	562	623	625	736	877
Teaching year 11	459	461	464	469	475	604	732	805	881	1,080
% of teaching costs by year 11	19	18	17	18	18	21	25	27	25	26
Non-teaching	322	326	369	375	382	690	718	631	635	669
Total	2,737	2,879	3,060	2,997	3,007	3,540	3,632	3,623	4,091	4,820
Operating profit (£000)										
£000s	(115)	(255)	(426)	(339)	(283)	3,180	2,173	2,654	2,761	2,471
% sales revenue	(4)	(10)	(16)	(13)	(10)	47	37	42	40	34
Students Per year										
Primary	0	0	0	0	0	494	475	439	437	464
Secondary	874	875	878	886	908	925	714	851	993	1002
Sixth form	0	0	0	0	0	0	0	0	97	127
Total	874	875	878	886	908	1,419	1,189	1,290	1,527	1,593
Available primary capacity	0	0	0	0	0	520	520	520	520	520
Available secondary capacity	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
Available sixth form capacity	0	0	0	0	0	0	0	0	200	200
Total available capacity	1,000	1,000	1,000	1,000	1,000	1,520	1,520	1,520	1,720	1,720
Number of Secondary applications	201	202	200	202	204	201	204	214	278	314
Applications (% available Secondary capacity)	95	96	95	96	97	96	97	102	132	150
Available Spaces in Year 7	210	210	210	210	210	210	210	210	210	210
% of Year 7 applications outside 1 mile	0	0	0	0	2	8	24	31	53	66
% total capacity filled	87	88	88	89	91	93	78	85	83	89
Rejected applications within 1 mile										
Primary	0	0	0	0	0	0	0	7	17	27
Secondary	0	0	0	0	0	4	9	10	8	9
Total	0	0	0	0	0	4	9	17	25	36
Rejected applications outside 1m										
Primary	0	0	0	0	0	0	0	0	1	3

Performance	04-05	05-06	06-07	07-08	08-09	09-10	10-11	11-12	12-13	13-14
Secondary	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	1	3
Competitiveness (all students)										
Living within 1 mile	874	875	878	886	908	1149	880	832	844	766
Living outside 1 mile	0	0	0	0	0	270	309	458	683	827
% outside 1 mile	0	0	0	0	0	21	26	50	63	67
Competitiveness (primary)										
Students living within 1 mile	0	0	0	0	0	249	224	177	163	150
Students living outside 1 mile	0	0	0	0	0	245	251	262	274	314
% students outside 1 mile	0	0	0	0	0	49	52	59	62	67
Competitiveness (secondary)										
Students living within 1 mile	874	875	878	886	908	900	656	655	584	489
Students living outside 1 mile	0	0	0	0	0	25	58	196	409	513
% students outside 1 mile	0	0	0	0	0	3	8	23	41	51
Teaching quality (% lessons)										
Outstanding	19	19	19	19	19	19	19	21	23	27
Good	39	42	44	45	47	58	60	57	51	49
Requires Improvement	38	35	33	32	31	21	19	20	24	23
Inadequate	4	4	4	4	3	2	2	2	2	1
Students										
Number of incidents	663	654	645	689	675	1043	896	785	592	549
Student attendance (% classes)	92	92	93	92	93	94	94	95	95	96
Fixed term exclusions	34	26	20	17	16	192	112	103	92	66
Permanent exclusions	1	0	0	0	0	6	0	0	0	0
Teachers										
Number	69	69	69	69	70	95	84	88	96	104
Number on capability	1	0	0	1	2	31	20	20	0	0
With no sickness	54	58	62	48	39	21	37	74	87	93
On long term sick (>20 days)	2	3	3	2	5	14	10	5	4	2
Days lost	386	384	382	389	398	501	421	392	510	519
Teaches recruited										
Primary	0	0	0	0	0	27	26	26	26	27
Year 7-9	0	0	0	0	0	1	1	6	6	2
Year 10	0	0	0	0	2	2	2	11	1	4
Year 11	0	0	0	0	0	6	3	6	1	1
Sixth form	0	0	0	0	0	0	0	0	7	10
Teachers lost through natural attrition										
Year 7-9	0	0	0	0	0	1	0	1	2	3
Year 10	0	0	0	0	0	1	0	0	4	3
Year 11	0	0	0	0	0	2	1	2	1	1
Teachers managed out by capability										
Year 7-9	0	0	0	0	0	11	1	13	0	0
Year 10	0	0	0	0	0	0	4	7	0	0
Year 11	0	0	0	0	0	2	9	5	0	0
Support staff										
Number	99	99	97	98	101	97	54	115	94	104
Recruited	0	0	1	1	3	1	0	61	0	10
Lost through natural attrition	0	0	3	0	0	1	3	0	1	0

Performance	04-05	05-06	06-07	07-08	08-09	09-10	10-11	11-12	12-13	13-14
Managed out by capability	0	0	0	0	0	4	40	0	20	0
With no sickness	46	42	38	39	31	23	34	64	79	85
On long term sick (>20 days)	4	3	5	6	4	19	10	9	4	2
Days lost	320	315	337	327	321	449	327	326	426	418

Note: Figures are for the end of the academic year shown

Figure a17: Urban 1 (Case 3) teaching resource allocation

Performance	04-05	05-06	06-07	07-08	08-09	09-10	10-11	11-12	12-13	13-14
Students per year										
Primary (Nursery to Year 2)	0	0	0	0	0	290	274	232	220	232
Primary (Year 3 to 6)	0	0	0	0	0	204	201	207	217	228
Secondary (Year 7 to 9)	579	588	587	590	590	552	459	497	521	553
Secondary (Year 10)	174	159	162	165	186	188	154	172	178	189
Secondary (Year 11)	121	128	129	131	132	185	101	182	197	202
Sixth Form (Year 12 to 13)	0	0	0	0	0	0	0	0	97	127
Total	874	875	878	886	908	1,419	1,189	1,290	1,430	1,535
Teachers per year										
Primary (Nursery to Year 2)	0	0	0	0	0	14	14	14	13	14
Primary (Year 3 to 6)	0	0	0	0	0	13	12	12	13	13
Secondary (Year 7 to 9)	45	45	45	45	45	36	36	30	34	37
Secondary (Year 10)	12	12	12	12	13	14	12	16	13	15
Secondary (Year 11)	12	12	12	12	12	18	13	16	16	18
Sixth Form (Year 12 to 13)	0	0	0	0	0	0	0	0	7	10
Total	69	69	69	69	70	95	87	88	96	107
Students per teacher										
Primary (Nursery to Year 2)	0	0	0	0	0	16	16	17	18	18
Primary (Year 3 to 6)	0	0	0	0	0	16	16	17	17	18
Secondary (Year 7 to 9)	12	12	11	12	13	15	15	16	16	17
Secondary (Year 10)	14	14	15	16	16	13	13	10	12	12
Secondary (Year 11)	14	15	16	15	11	10	10	11	10	10
Sixth Form (Year 12 to 13)	0	0	0	0	0	0	0	0	13	13
Average primary	0	0	0	0	0	16	16	17	18	18
Average secondary	13	14	14	14	13	13	13	12	13	13
Average overall	13	14	14	14	13	14	14	15	15	16
Average teacher salary (£000)										
Primary (Nursery to Year 2)	0	0	0	0	0	27	28	29	30	30
Primary (Year 3 to 6)	0	0	0	0	0	30	31	34	37	37
Secondary (Year 7 to 9)	36	36	37	37	38	40	41	42	45	45
Secondary (Year 10)	37	38	39	38	38	40	42	44	48	50
Secondary (Year 11)	38	39	40	39	39	41	42	48	55	60
Sixth Form (Year 12 to 13)	0	0	0	0	0	0	0	0	35	35
Total	37	38	38	37	37	32	33	34	36	38

Note: Figures are for the end of the academic year shown

Figure a18: Urban 1 (Case 3) market served and needs

Market served and needs	04-05	05-06	06-07	07-08	08-09	09-10	10-11	11-12	12-13	13-14
Market served										
Students within 1 mile	874	875	878	886	908	1,134	880	640	533	512
Students outside 1 mile	0	0	0	0	0	294	308	643	896	1,023
% outside 1 mile	0	0	0	0	0	21	26	50	63	67
Key order-winner (% customers)										
Location	100	100	100	100	100	62	44	40	34	30
Speed of admissions process	0	0	0	0	0	37	38	25	17	11
Academic product design	0	0	0	0	0	-	9	25	40	56
Non Academic product design	0	0	0	0	0	1	9	10	9	3
Winning students within 1 mile										
Location	100	100	100	100	100	87	83	71	63	61
Academic product design	Q	Q	Q	Q	Q	0	0	10	10	10
Non Academic product design	Q	Q	Q	Q	Q	3	Q	Q	Q	Q
Front Office Customer service	Q	Q	Q	Q	Q	Q	Q	Q	7	8
Customer relationship	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Speed of admissions process	Q	Q	Q	Q	Q	10	17	19	20	21
Retaining customers within 1 mile										
Location	100	100	100	100	100	100	87	83	68	53
Academic product design	Q	Q	Q	Q	Q	-	-	3	15	27
Non Academic product design	Q	Q	Q	Q	Q	Q	10	7	8	9
Front Office Customer service	Q	Q	Q	Q	Q	Q	3	5	5	6
Customer relationship	Q	Q	Q	Q	Q	Q	1	3	4	5
Speed of admissions process	Q	Q	Q	Q	Q	-	-	-	-	-
Winning students outside 1 mile										
Location	-	-	-	-	-	-	2	3	4	3
Academic product design	-	-	-	-	-	-	-	32	64	66
Non Academic product design	-	-	-	-	-	Q	5	Q	Q	Q
Front Office Customer service	-	-	-	-	-	Q	Q	5	Q	9
Customer relationship	-	-	-	-	-	Q	Q	Q	Q	Q
Speed of admissions process	-	-	-	-	-	100	93	60	32	22
Retaining customers outside 1 mile										
Location	-	-	-	-	-	-	-	-	-	-
Academic product design	-	-	-	-	-	-	35	49	66	81
Non Academic product design	-	-	-	-	-	-	15	10	5	1
Front Office Customer service	-	-	-	-	-	-	9	15	10	5
Customer relationship	-	-	-	-	-	-	Q	4	5	6
Speed of admissions process	-	-	-	-	-	-	41	22	14	7

Definitions:

Location	Location of academy site
Academic product design	The academic curriculum design and delivery
Non Academic product design	The non academic curriculum (including sport and other facilities) design and delivery
Front Office Customer service	Customer service provided by front office employees
Customer relationship	Relationship between customers and front office employees
Speed of admissions process	Speed that admissions are processed and offers made to customers

Appendix 4: Case data for Urban 2 (Case 4)

Figure a19: Urban 2 (Case 4) competitor analysis

Performance	04-05	05-06	06-07	07-08	08-09	09-10	10-11	11-12	12-13	13-14
OfSTED Inspection (1-4)										
Urban 2 (Case 4)	-	3	-	4	-	3	-	2	-	1
Academy 16	2	-	3	2	-	2	-	3	-	2
Academy 17	-	2	-	3	-	2	-	2	-	1
Academy 18	-	-	-	1	-	1	-	-	1	-
Academy 14	-	2	-	2	3	4	-	3	-	3
Academy 19	-	-	2	-	3	4	-	3	3	-
Exam results (% 5+ C or above)										
Urban 2 (Case 4)	40	41	39	34	32	31	49	63	65	66
Academy 16	50	52	55	53	57	58	59	57	60	61
Academy 17	48	49	52	51	47	44	41	46	52	48
Academy 18	90	91	90	89	90	88	90	94	95	90
Academy 14	39	37	38	36	33	31	41	45	63	56
Academy 19	30	29	28	34	38	39	36	50	53	51
Progress measure (Maths)										
Urban 2 (Case 4)	-	-	-	-	-	54	56	70	69	71
Academy 16	-	-	-	-	-	59	60	69	69	63
Academy 17	-	-	-	-	-	60	59	64	73	76
Academy 18	-	-	-	-	-	81	92	97	95	94
Academy 14	-	-	-	-	-	62	68	71	73	69
Academy 19	-	-	-	-	-	51	55	58	55	53
Progress measure (English)										
Urban 2 (Case 4)	-	-	-	-	-	67	70	73	72	71
Academy 16	-	-	-	-	-	70	72	76	70	81
Academy 17	-	-	-	-	-	57	52	64	84	93
Academy 18	-	-	-	-	-	95	97	86	95	89
Academy 14	-	-	-	-	-	66	71	75	84	58
Academy 19	-	-	-	-	-	56	58	62	61	63
Revenue (£000)										
Urban 2 (Case 4)	4,032	4,023	4,014	4,023	4,045	3,033	3,061	4,392	4,758	4,823
Academy 16	4,737	5,015	5,233	5,331	5,393	5,576	5,724	5,860	6,085	6,257
Academy 17	3,512	3,666	3,832	4,057	4,258	4,553	4,677	4,813	4,932	5,074
Academy 18	5,919	5,925	5,919	5,943	5,961	6,085	6,138	6,316	6,322	6,339
Academy 14	6,623	6,611	6,617	6,517	5,161	4,518	3,986	3,388	2,856	2,809
Academy 19	5,825	5,866	6,458	6,475	6,617	6,582	6,085	7,055	6,694	6,529
Secondary students										
Urban 2 (Case 4)	896	894	892	894	899	674	681	693	701	704
Academy 16	801	848	885	902	912	943	968	991	1029	1058
Academy 17	594	620	648	686	720	770	791	814	834	858
Academy 18	1001	1002	1001	1005	1008	1029	1038	1068	1069	1072
Academy 14	1,120	1,118	1,119	1,102	874	764	901	1003	1120	1204
Academy 19	985	992	1,092	1,095	1,119	1,113	1,029	1,193	1,132	1,104
Total	5397	5474	5637	5684	5532	5293	5408	5762	5885	6000
Market share (% students)										
Urban 2 (Case 4)	17	16	16	16	16	13	13	13	13	13
Academy 16	15	15	16	16	16	18	19	19	20	20
Academy 17	11	11	11	12	13	15	15	15	16	16

Performance	04-05	05-06	06-07	07-08	08-09	09-10	10-11	11-12	12-13	13-14
Academy 18	19	18	18	18	18	19	20	20	20	20
Academy 14	21	20	20	19	16	14	13	11	9	9
Academy 19	18	18	19	19	20	21	20	22	22	21
Market share (% competitors)	-	-	-	-	96	75	75	75	75	76
Sixth form students										
Urban 2 (Case 4)	0	0	0	0	0	0	0	100	146	149
Academy 16	0	0	0	0	0	0	0	0	0	0
Academy 17	0	0	0	0	0	0	0	0	0	0
Academy 18	200	200	200	200	200	200	200	200	200	200
Academy 14	0	0	0	0	0	0	12	16	27	24
Academy 19	0	0	0	0	0	0	0	0	0	0
Primary student capacity (number)										
Urban 2 (Case 4)	0	0	0	0	0	0	0	0	0	0
Academy 16	0	0	0	0	0	0	0	0	0	0
Academy 17	0	0	0	0	0	0	0	0	0	0
Academy 18	0	0	0	0	0	0	0	0	0	0
Academy 14	0	0	0	0	0	0	0	0	0	0
Academy 19	0	0	0	0	0	0	0	0	0	0
Secondary student capacity (number)										
Urban 2 (Case 4)	950	950	950	950	950	1250	1250	1250	1250	1250
Academy 16	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100
Academy 17	800	800	800	800	800	800	800	800	800	800
Academy 18	1000	1000	1000	1000	1000	1025	1025	1070	1070	1070
Academy 14	1,120	1,120	1,120	1,120	1,120	1,120	1,120	1,120	1,120	1,200
Academy 19	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,400	1,400
Sixth form student capacity (number)										
Urban 2 (Case 4)	0	0	0	0	0	0	0	150	150	150
Academy 16	0	0	0	0	0	0	0	0	0	0
Academy 17	0	0	0	0	0	0	0	0	0	0
Academy 18	200	200	200	200	200	200	200	200	200	200
Academy 14	0	0	0	0	0	0	300	300	300	300
Academy 19	0	0	0	0	0	0	0	0	0	0
Primary teacher capacity (number)										
Urban 2 (Case 4)	0	0	0	0	0	0	0	0	0	0
Academy 16	0	0	0	0	0	0	0	0	0	0
Academy 17	0	0	0	0	0	0	0	0	0	0
Academy 18	0	0	0	0	0	0	0	0	0	0
Academy 14	0	0	0	0	0	0	0	0	0	0
Academy 19	0	0	0	0	0	0	0	0	0	0
Secondary teacher capacity (number)										
Urban 2 (Case 4)	75	69	69	69	75	52	52	57	61	57
Academy 16	49	51	54	55	55	57	59	60	62	64
Academy 17	36	38	39	42	44	47	48	49	51	52
Academy 18	61	61	61	61	61	62	63	65	65	65
Academy 14	68	68	68	67	53	46	41	35	29	29
Academy 19	60	60	66	66	68	67	62	72	69	67
Sixth form teacher capacity (number)										
Urban 2 (Case 4)	0	0	0	0	0	0	0	10	10	10
Academy 16	0	0	0	0	0	0	0	0	0	0
Accademy 17	0	0	0	0	0	0	0	0	0	0

Performance	04-05	05-06	06-07	07-08	08-09	09-10	10-11	11-12	12-13	13-14
Academy 18	13	13	13	13	13	13	13	13	13	13
Academy 14	0	0	0	0	0	0	2	2	2	2
Academy 19	0	0	0	0	0	0	0	0	0	0

Note: Progress measures were not introduced into the UK education sector until 2008-09

Figure a20: Urban 2 (Case 4) student ethnicity competitor analysis

Student ethnicity (% total)	04-05	05-06	06-07	07-08	08-09	09-10	10-11	11-12	12-13	13-14
Urban 2 (Case 4)										
Black or Black British	19.0	20.0	22.0	23.0	31.0	36.0	34.0	35.0	30.0	30.0
Chinese	0.0	0.0	0.0	0.0	1.0	0.0	5.0	11.0	16.0	22.0
White	64.0	64.0	62.0	62.0	57.0	43.0	38.0	31.0	25.0	24.0
Arab or any other	0.0	0.0	0.0	0.0	1.0	1.0	9.0	7.0	10.0	11.0
Asian or Asian British	0.0	0.0	0.0	0.0	0.0	1.0	1.0	5.0	8.0	3.0
Mixed	9.0	9.0	9.0	8.0	5.0	10.0	8.0	8.0	8.0	7.0
Not stated	8.0	7.0	7.0	7.0	5.0	9.0	5.0	3.0	3.0	3.0
Academy 16										
Black or Black British	11.0	14.0	14.0	15.0	15.0	17.0	20.0	22.0	24.0	24.0
Chinese	0.0	0.0	2.0	2.0	3.0	2.0	3.0	6.0	13.0	17.0
White	68.0	66.0	64.0	62.0	59.0	53.0	41.0	33.0	23.0	18.0
Arab or any other	1.0	2.0	2.0	3.0	2.0	6.0	5.0	7.0	9.0	8.0
Asian or Asian British	2.0	3.0	3.0	4.0	5.0	9.0	14.0	19.0	20.0	22.0
Mixed	9.0	9.0	9.0	9.0	9.0	9.0	10.0	9.0	8.0	8.0
Not stated	9.0	6.0	6.0	5.0	7.0	4.0	7.0	4.0	3.0	3.0
Academy 17										
Black or Black British	4.0	5.0	6.0	6.0	6.0	6.0	6.0	6.0	5.0	5.0
Chinese	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.0
White	62.0	59.0	58.0	56.0	56.0	56.0	57.0	59.0	60.0	60.0
Arab or any other	5.0	5.0	6.0	6.0	6.0	7.0	6.0	5.0	1.0	1.0
Asian or Asian British	8.0	9.0	9.0	9.0	9.0	8.0	7.0	7.0	7.0	6.0
Mixed	13.0	16.0	15.0	17.0	18.0	17.0	18.0	17.0	20.0	21.0
Not stated	8.0	6.0	6.0	6.0	5.0	6.0	6.0	6.0	6.0	6.0
Academy 18										
Black or Black British	4.0	5.0	5.0	5.0	6.0	6.0	6.0	6.0	7.0	8.0
Chinese	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	2.0
White	72.0	65.0	62.0	59.0	57.0	53.0	51.0	48.0	47.0	43.0
Arab or any other	0.0	0.0	0.0	0.0	2.0	3.0	5.0	7.0	7.0	6.0
Asian or Asian British	1.0	7.0	7.0	7.0	7.0	8.0	8.0	8.0	9.0	9.0
Mixed	20.0	19.0	21.0	23.0	21.0	22.0	21.0	21.0	18.0	20.0
Not stated	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0	11.0	12.0
Academy 14										
Black or Black British	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	8.0	8.0
Chinese	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
White	67.0	65.0	64.0	63.0	61.0	60.0	59.0	59.0	58.0	56.0
Arab or any other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.0	1.0
Asian or Asian British	1.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Mixed	20.0	22.0	24.0	24.0	26.0	26.0	27.0	27.0	28.0	29.0
Not stated	5.0	5.0	5.0	5.0	5.0	5.0	5.0	4.0	4.0	4.0
Academy 19										
Black or Black British	4.0	4.0	4.0	4.0	4.0	4.0	5.0	5.0	5.0	5.0
Chinese	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
White	72.0	71.0	69.0	68.0	66.0	65.0	63.0	62.0	60.0	59.0
Arab or any other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Asian or Asian British	1.0	1.0	1.0	2.0	2.0	2.0	2.0	3.0	3.0	3.0
Mixed	20.0	21.0	23.0	23.0	25.0	25.0	26.0	27.0	28.0	28.0
Not stated	3.0	3.0	3.0	3.0	3.0	4.0	4.0	4.0	4.0	5.0

Note: Competitors identified through analysis of 'school choices' on secondary school applications

Figure a21: Urban 2 (Case 4) year 11 student leavers competitor analysis

Destination (% Year 11 leavers)	04-05	05-06	06-07	07-08	08-09	09-10	10-11	11-12	12-13	13-14
Urban 2 (Case 4)										
Stayed at school (sixth form)	0	0	0	0	0	0	0	0	24	52
Sixth form college (other provider)	0	0	0	0	0	0	0	1	2	3
Further education college	0	0	0	0	8	11	15	22	26	29
Apprenticeship	35	34	35	32	41	49	50	48	25	5
Left education	36	35	38	42	36	24	21	17	12	7
Unknown	28	30	26	25	17	18	15	13	11	4
Academy 16										
Stayed at school (sixth form)	0	0	0	0	0	18	32	39	42	54
Sixth form college (other provider)	0	0	0	0	0	0	2	3	4	1
Further education college	34	38	40	34	30	32	33	32	29	29
Apprenticeship	14	5	3	14	27	14	5	7	11	4
Left education	34	35	36	33	27	20	15	10	8	6
Unknown	20	24	23	21	18	16	13	9	6	6
Academy 17										
Stayed at school (sixth form)	0	0	0	0	0	0	0	15	24	31
Sixth form college (other provider)	42	43	41	38	41	44	50	30	20	8
Further education college	28	25	24	22	20	21	19	16	20	29
Apprenticeship	22	23	25	28	29	27	26	24	22	21
Left education	6	7	9	11	8	7	4	5	6	4
Unknown	3	3	0	0	3	0	0	8	6	5
Academy 18										
Stayed at school (sixth form)	35	37	39	40	38	42	45	48	53	59
Sixth form college (other provider)	6	7	8	8	9	10	12	13	11	12
Further education college	19	21	20	20	18	16	15	15	17	16
Apprenticeship	18	19	20	17	20	18	15	12	8	0
Left education	10	5	0	2	1	0	0	0	0	4
Unknown	12	11	13	13	14	14	13	12	11	9
Academy 14										
Stayed at school (sixth form)	0	0	0	0	0	0	21	27	29	30
Sixth form college (other provider)	0	1	1	3	6	7	2	6	16	19
Further education college	41	43	44	42	40	41	39	37	36	35
Apprenticeship	25	24	22	23	21	20	16	13	8	3
Left education	34	32	33	31	30	29	22	17	11	7
Unknown	0	0	0	1	3	3	0	0	0	6
Academy 19										
Stayed at school (sixth form)	0	0	0	0	0	0	0	0	18	30
Sixth form college (other provider)	25	27	30	29	27	25	21	18	17	16
Further education college	40	41	37	35	33	35	36	35	36	34
Apprenticeship	4	6	7	7	11	15	22	28	13	9
Left education	18	16	15	17	20	17	12	8	6	2
Unknown	14	11	12	13	10	9	10	12	8	7

Note: Competitors identified through analysis of 'school choices' on secondary school applications

233

Figure a22: Urban 2 (Case 4) performance journey

Performance	04-05	05-06	06-07	07-08	08-09	09-10	10-11	11-12	12-13	13-14
OfSTED Inspection (1-4)										
Achievement of pupils	-	3	-	3	-	3	-	2	-	2
Teaching quality	-	3	-	4	-	3	-	2	-	1
Behaviour and safety	-	3	-	4	-	3	-	2	-	1
Leadership and management	-	3	-	4	-	3	-	2	-	1
Overall	-	3	-	4	-	3	-	2	-	1
Exam results										
Secondary (% 5+ C or above)	40	41	39	34	32	31	49	63	65	66
Secondary (% 5+ B or above)	0	0	0	0	0	0	0	0	12	14
Secondary (% 5+ A or above)	0	0	0	0	0	0	0	1	2	5
Revenue (£000)										
Teaching	4,032	4,023	4,014	4,023	4,045	3,033	3,061	3,568	3,811	3,838
Non-teaching	0	0	0	0	0	0	0	0,824	0,947	0,985
Total	4,032	4,023	4,014	4,023	4,045	3,033	3,061	4,392	4,758	4,823
Costs (£000)										
Teaching	1,914	1,914	2,143	1,963	1,864	1,447	1,479	1,429	2,566	2,527
Teaching years 7-9	1,914	1,914	2,143	1,963	1,864	1,447	1,479	1,429	1,519	1,431
Teaching year 10	0,703	0,717	0,693	0,643	0,643	0,628	0,650	0,844	0,810	0,836
Teaching year 11	0,717	0,693	0,667	0,693	0,883	0,999	0,950	0,969	1,047	1,096
% of teaching costs by year 11	37	36	31	35	47	69	64	68	41	43
Non-teaching	2,534	2,545	2,542	2,541	2,552	1,430	1,340	2,405	1,540	1,533
Total	4,448	4,459	4,685	4,504	4,416	2,877	2,819	3,834	3,999	4,448
Operating profit (£000)										
£000s	(416)	(436)	(671)	(481)	(371)	156	242	558	652	763
Students Per year										
Secondary	896	894	892	894	899	674	681	693	701	704
Sixth form	0	0	0	0	0	0	0	100	146	149
Total	896	894	892	894	899	674	681	793	847	853
Available secondary capacity	950	950	950	950	950	1250	1250	1250	1250	1250
Available sixth form capacity	0	0	0	0	0	0	0	150	150	150
Total available capacity	950	950	950	950	950	1250	1250	1400	1400	1400
Number of Secondary applications	171	179	178	184	181	182	185	189	195	205
Applications (% available Secondary capacity)	97	97	96	99	98	121	123	126	130	137
Available Spaces in Year 7	185	185	185	185	185	150	150	150	150	150
% of Year 7 applications outside 1 mile	0	0	0	0	0	8	24	31	53	66
% total capacity filled	94	94	94	94	95	54	54	57	61	61
Rejected applications within 1 mile										
Secondary	0	0	0	0	0	0	0	5	12	21
Sixth Form	0	0	0	0	0	0	0	86	88	94
Total	0	0	0	0	0	0	0	91	100	115
Rejected applications outside 1m										
Secondary	0	0	0	0	0	0	0	0	1	2
Sixth Form	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	1	2
Competitiveness (secondary)										
Students living within 1 mile	896	894	892	894	899	662	633	568	452	345
Students living outside 1 mile	0	0	0	0	0	12	48	125	249	359
% students outside 1 mile	0	0	0	0	0	2	7	18	36	51

Performance	04-05	05-06	06-07	07-08	08-09	09-10	10-11	11-12	12-13	13-14
Teaching quality (% lessons)										
Outstanding	18	18	18	18	18	18	18	20	22	26
Good	38	41	43	44	46	57	59	56	50	48
Requires Improvement	37	34	32	31	30	20	18	19	23	22
Inadequate	7	7	7	7	6	5	5	5	5	4
Students										
Number of incidents	642	633	624	668	654	1022	875	764	571	528
Student attendance (% classes)	92	92	93	92	93	94	94	95	95	96
Fixed term exclusions	40	52	47	38	14	175	152	96	87	73
Permanent exclusions	0	0	0	0	0	3	1	0	0	0
Teachers										
Number	75	69	69	69	75	52	52	57	61	57
Number on capability	0	5	0	0	5	15	0	0	0	0
With no sickness	21	29	25	22	19	9	8	12	11	10
On long term sick (>20 days)	4	3	4	1	3	8	1	0	0	0
Days lost	394	381	395	386	367	412	157	145	159	135
Teaches recruited										
Year 7-9	0	0	0	0	3	0	0	3	2	0
Year 10	0	0	0	0	2	0	0	1	1	0
Year 11	0	0	0	0	1	0	0	1	1	0
Sixth form	0	0	0	0	0	0	0	0	7	10
Teachers lost through natural attrition										
Year 7-9	0	1	0	0	0	3	0	0	0	2
Year 10	0	0	0	0	0	3	0	0	0	1
Year 11	0	0	0	0	0	2	0	0	0	1
Teachers managed out by capability										
Year 7-9	0	3	0	0	0	10	0	0	0	0
Year 10	0	1	0	0	0	2	0	0	0	0
Year 11	0	1	0	0	0	3	0	0	0	0
Support staff										
Number	75	69	69	69	75	75	30	30	30	30
Recruited	0	0	0	0	6	0	0	0	0	0
Lost through natural attrition	0	6	0	0	0	0	15	0	0	0
Managed out by capability	0	0	0	0	0	0	30	0	0	0
With no sickness	44	41	40	42	45	37	26	26	27	25
On long term sick (>20 days)	3	1	2	3	3	13	0	0	0	0
Days lost	315	384	334	352	345	564	98	91	86	84

Note: Figures are for the end of the academic year shown

Figure a23: Urban 2 (Case 4) teaching resource allocation

Performance	04-05	05-06	06-07	07-08	08-09	09-10	10-11	11-12	12-13	13-14
Students per year										
Secondary (Year 7 to 9)	538	536	535	536	539	450	450	450	450	450
Secondary (Year 10)	179	179	178	179	180	135	136	139	140	141
Secondary (Year 11)	179	179	178	179	180	89	95	104	111	113
Sixth Form (Year 12 to 13)	0	0	0	0	0	0	0	100	146	149
Total	896	894	892	894	899	674	681	793	847	853
Teachers per year										
Secondary (Year 7 to 9)	49	49	54	49	45	32	32	30	30	28
Secondary (Year 10)	14	14	13	12	12	11	11	15	13	13
Secondary (Year 11)	14	13	12	13	18	10	11	10	12	13
Sixth Form (Year 12 to 13)	0	0	0	0	0	0	0	0	12	12
Total	75	69	69	69	75	52	52	57	61	57
Students per teacher										
Secondary (Year 7 to 9)	11	11	10	11	12	14	14	15	15	16
Secondary (Year 10)	13	13	14	15	15	12	12	9	11	11
Secondary (Year 11)	13	14	15	14	10	9	9	10	9	9
Sixth Form (Year 12 to 13)	0	0	0	0	0	0	0	0	12	12
Total	12	13	13	13	12	13	13	14	14	15
Average teacher salary (£000)										
Secondary (Year 7 to 9)	35	35	36	36	37	39	40	41	44	44
Secondary (Year 10)	36	37	38	37	37	39	41	43	47	49
Secondary (Year 11)	37	38	39	38	38	40	41	47	54	59
Sixth Form (Year 12 to 13)	0	0	0	0	0	0	0	0	34	34
Total	36	37	37	36	36	31	32	33	35	37

Note: Figures are for the end of the academic year shown

Figure a24: Urban 2 (Case 4) market served and needs

Market served and needs	04-05	05-06	06-07	07-08	08-09	09-10	10-11	11-12	12-13	13-14
Market served										
Students within 1 mile	896	894	892	894	899	662	633	568	452	345
Students outside 1 mile	0	0	0	0	0	12	48	125	249	359
% outside 1 mile	0	0	0	0	0	2	7	18	36	51
Key order-winner (% customers)										
Location	100	100	100	100	100	90	56	54	48	45
Speed of admissions process	0	0	0	0	0	10	38	25	19	17
Academic product design	0	0	0	0	0	0	1	15	24	31
Non Academic product design	0	0	0	0	0	0	5	6	9	7
Winning students within 1 mile										
Location	100	100	100	100	100	80	81	77	70	68
Academic product design	Q	Q	Q	Q	Q	2	2	11	10	12
Non Academic product design	Q	Q	Q	Q	Q	5	5	Q	Q	Q
Front Office Customer service	Q	Q	Q	Q	Q	Q	Q	Q	9	10
Customer relationship	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Speed of admissions process	Q	Q	Q	Q	Q	13	12	12	11	10
Retaining customers within 1 mile										
Location	100	100	100	100	100	100	86	81	70	58
Academic product design	Q	Q	Q	Q	Q	Q	Q	3	15	22
Non Academic product design	Q	Q	Q	Q	Q	Q	10	9	8	9
Front Office Customer service	Q	Q	Q	Q	Q	Q	3	4	5	6
Customer relationship	Q	Q	Q	Q	Q	Q	1	3	2	5
Speed of admissions process	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Winning students outside 1 mile										
Location	-	-	-	-	-	Q	3	4	5	4
Academic product design	-	-	-	-	-	Q	Q	32	63	65
Non Academic product design	-	-	-	-	-	Q	4	Q	Q	Q
Front Office Customer service	-	-	-	-	-	Q	Q	3	Q	9
Customer relationship	-	-	-	-	-	Q	Q	Q	Q	Q
Speed of admissions process	-	-	-	-	-	100	93	61	32	22
Retaining customers outside 1 mile										
Location	-	-	-	-	-	-	Q	Q	Q	Q
Academic product design	-	-	-	-	-	-	Q	31	39	59
Non Academic product design	-	-	-	-	-	-	Q	15	10	5
Front Office Customer service	-	-	-	-	-	-	Q	9	12	10
Customer relationship	-	-	-	-	-	-	Q	Q	4	5
Speed of admissions process	-	-	-	-	-	-	100	45	35	21

Definitions:

Location	Location of academy site
Academic product design	The academic curriculum design and delivery
Non Academic product design	The non academic curriculum (including sport and other facilities) design and delivery
Front Office Customer service	Customer service provided by front office employees
Customer relationship	Relationship between customers and front office employees
Speed of admissions process	Speed that admissions are processed and offers made to customers

Appendix 5: Case data for Rural 1 (Case 5)

Figure a25: Rural 1 (Case 5) competitor analysis

Performance	04-05	05-06	06-07	07-08	08-09	09-10	10-11	11-12	12-13	13-14
OfSTED Inspection (1-4)										
Rural 1 (Case 5)	3	3	4	4	-	3	2	2	-	1
Academy 20	-	-	1	-	-	1	-	1	-	2
Academy 21	4	-	3	-	3	2	-	-	3	-
Academy 22	-	-	-	-	-	-	-	-	2	-
Academy 23	3	-	2	-	-	2	-	-	3	-
Academy 24	1	-	-	1	-	-	1	-	-	2
Exam results (% 5+ C or above)										
Rural 1 (Case 5)	14	17	18	22	29	31	31	33	63	68
Academy 20	67	65	72	69	71	70	72	69	71	66
Academy 21	23	25	27	39	46	52	39	46	52	41
Academy 22	-	-	-	-	-	-	-	-	-	-
Academy 23	31	33	37	35	38	42	47	50	48	49
Academy 24	78	79	81	80	79	80	81	83	84	87
Progress measure (Maths)										
Rural 1 (Case 5)	-	-	-	-	-	32	38	41	74	75
Academy 20	-	-	-	-	-	71	72	70	79	73
Academy 21	-	-	-	-	-	52	51	52	53	51
Academy 22	-	-	-	-	-	-	-	-	-	-
Academy 23	-	-	-	-	-	57	56	54	63	64
Academy 24	-	-	-	-	-	88	89	90	91	91
Progress measure (English)										
Rural 1 (Case 5)	-	-	-	-	-	40	44	49	72	74
Academy 20	-	-	-	-	-	68	70	71	76	73
Academy 21	-	-	-	-	-	55	53	54	68	47
Academy 22	-	-	-	-	-	-	-	-	-	-
Academy 23	-	-	-	-	-	60	65	69	61	63
Academy 24	-	-	-	-	-	89	90	90	91	93
Revenue (£000)										
Rural 1 (Case 5)	4,626	4,635	3,918	3,376	2,821	2,782	2,541	2,568	3,620	4,353
Academy 20	3,743	3,752	3,779	3,802	3,828	3,838	4,159	4,231	4,424	4,484
Academy 21	3,428	3,396	3,468	3,405	2,821	2,803	2,803	2,854	2,817	3,273
Academy 22	-	-	-	-	-	-	0,546	1,038	1,627	2,161
Academy 23	4,149	4,126	4,112	4,117	4,122	3,969	3,965	3,975	3,960	4,501
Academy 24	4,022	4,027	4,022	4,018	6,301	6,346	6,377	6,396	6,392	6,401
Primary students										
Rural 1 (Case 5)	0	0	0	0	0	0	0	0	0	0
Academy 20	0	0	0	0	0	0	0	0	0	0
Academy 21	0	0	0	0	0	0	0	0	0	0
Academy 22	0	0	0	0	0	0	0	0	0	0
Academy 23	0	0	0	0	0	0	0	0	0	0
Academy 24	0	0	0	0	0	0	0	0	0	0
Secondary students										
Rural 1 (Case 5)	1,032	1,034	874	753	628	615	486	436	583	673
Academy 20	829	831	837	842	848	850	921	922	948	960
Academy 21	798	751	768	754	625	622	621	632	624	725
Academy 22	-	-	-	-	-	-	109	216	324	431

Performance	04-05	05-06	06-07	07-08	08-09	09-10	10-11	11-12	12-13	13-14
Academy 23	999	894	891	892	893	860	859	861	858	857
Academy 24	941	882	881	880	953	952	951	951	950	952
Total	4599	4392	4251	4121	3947	3899	3947	4018	4287	4598
Market share (% students)										
Rural 1 (Case 5)	23	24	21	18	16	16	12	11	14	15
Academy 20	19	19	20	20	21	22	23	23	22	21
Academy 21	17	17	18	18	16	16	16	16	15	16
Academy 22	-	-	-	-	-	-	3	5	8	9
Academy 23	20	20	21	22	23	22	22	21	20	19
Academy 24	20	20	21	21	24	24	24	24	22	21
Market share (% competitors)	123	123	104	89	76	75	56	49	63	69
Sixth form students										
Rural 1 (Case 5)	0	0	0	0	0	0	0	0	0	0
Academy 20	0	0	0	0	0	0	0	15	31	33
Academy 21	0	0	0	0	0	0	0	0	0	0
Academy 22	-	-	-	-	-	-	0	0	0	0
Academy 23	0	0	0	0	0	0	0	0	0	118
Academy 24	0	0	0	0	427	438	446	450	450	450
Primary student capacity (number)										
Rural 1 (Case 5)	0	0	0	0	0	0	0	0	0	0
Academy 20	0	0	0	0	0	0	0	0	0	0
Academy 21	0	0	0	0	0	0	0	0	0	0
Academy 22	-	-	-	-	-	-	0	0	0	0
Academy 23	0	0	0	0	0	0	0	0	0	0
Academy 24	0	0	0	0	0	0	0	0	0	0
Secondary student capacity (number)										
Rural 1 (Case 5)	1,050	1,050	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1200
Academy 20	850	850	850	850	850	850	1150	1150	1150	1150
Academy 21	945	945	945	945	945	945	945	945	945	945
Academy 22	-	-	-	-	-	-	750	750	750	750
Academy 23	900	900	900	900	900	900	950	950	950	950
Academy 24	880	880	880	880	950	950	950	950	950	950
Sixth form student capacity (number)										
Rural 1 (Case 5)	0	0	0	0	0	0	0	0	0	0
Academy 20	0	0	0	0	0	0	0	50	50	50
Academy 21	0	0	0	0	0	0	0	0	0	0
Academy 22	-	-	-	-	-	-	0	0	0	0
Academy 23	0	0	0	0	0	0	0	0	0	200
Academy 24	0	0	0	0	450	450	450	450	450	450
Primary teacher capacity (number)										
Rural 1 (Case 5)	0	0	0	0	0	0	0	0	0	0
Academy 20	0	0	0	0	0	0	0	0	0	0
Academy 21	0	0	0	0	0	0	0	0	0	0
Academy 22	-	-	-	-	-	-	0	0	0	0
Academy 23	0	0	0	0	0	0	0	0	0	0
Academy 24	0	0	0	0	0	0	0	0	0	0
Secondary teacher capacity (number)										
Rural 1 (Case 5)	67	67	56	49	41	40	29	23	35	40
Academy 20	61	62	62	62	63	63	68	68	70	71
Academy 21	47	47	48	47	39	39	39	40	39	45

Performance	04-05	05-06	06-07	07-08	08-09	09-10	10-11	11-12	12-13	13-14
Academy 22	0	0	0	0	0	0	5	11	16	22
Academy 23	53	53	52	52	53	51	51	51	50	50
Academy 24	49	49	49	49	53	52	53	53	53	54
Sixth form teacher capacity (number)										
Rural 1 (Case 5)	0	0	0	0	0	0	0	0	0	0
Academy 20	0	0	0	0	0	0	0	1	1	1
Academy 21	0	0	0	0	0	0	0	0	0	0
Academy 22	-	-	-	-	-	-	0	0	0	0
Academy 23	0	0	0	0	0	0	0	0	0	4
Academy 24	0	0	0	0	14	14	15	15	15	16

Note: Progress measures were not introduced into the UK education sector until 2008-09

Figure a26: Rural 1 (Case 5) secondary student ethnicity competitor analysis

Student ethnicity (% total)	04-05	05-06	06-07	07-08	08-09	09-10	10-11	11-12	12-13	13-14
Rural 1 (Case 5)										
White	93.0	92.0	92.0	92.0	92.0	92.0	91.0	90.0	89.0	88.0
Mixed	2.0	2.0	2.0	2.0	2.0	2.0	2.0	3.0	3.0	3.0
Asian or Asian British	2.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.0	4.0
Black or Black British	2.0	2.0	2.0	2.0	2.0	2.0	2.0	3.0	3.0	4.0
Chinese or other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Not stated	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Academy 20										
White	89.0	88.0	87.0	86.0	85.0	84.0	83.0	82.0	81.0	80.0
Mixed	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Asian or Asian British	3.0	3.0	3.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Black or Black British	2.0	3.0	4.0	4.0	5.0	6.0	7.0	8.0	8.0	9.0
Chinese or other	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Not stated	1.0	1.0	1.0	1.0	1.0	1.0	2.0	2.0	2.0	1.0
Academy 21										
White	90.0	89.0	88.0	88.0	89.0	90.0	91.0	93.0	92.0	93.0
Mixed	3.0	3.0	3.0	4.0	4.0	3.0	3.0	3.0	2.0	2.0
Asian or Asian British	2.0	3.0	4.0	4.0	4.0	3.0	3.0	3.0	2.0	1.0
Black or Black British	1.0	2.0	2.0	2.0	2.0	2.0	2.0	3.0	3.0	3.0
Chinese or other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Not stated	3.0	2.0	2.0	2.0	2.0	1.0	1.0	1.0	1.0	1.0
Academy 22										
White	-	-	-	-	-	-	82.0	81.0	81.0	80.0
Mixed	-	-	-	-	-	-	6.0	6.0	7.0	7.0
Asian or Asian British	-	-	-	-	-	-	5.0	6.0	6.0	7.0
Black or Black British	-	-	-	-	-	-	5.0	5.0	5.0	4.0
Chinese or other	-	-	-	-	-	-	1.0	1.0	1.0	2.0
Not stated	-	-	-	-	-	-	1.0	1.0	1.0	1.0
Academy 23										
White	90.0	90.0	89.0	88.0	88.0	87.0	86.0	84.0	83.0	82.0
Mixed	2.0	3.0	3.0	3.0	3.0	3.0	3.0	4.0	4.0	4.0
Asian or Asian British	4.0	4.0	4.0	5.0	5.0	5.0	6.0	6.0	7.0	7.0
Black or Black British	2.0	2.0	2.0	2.0	2.0	3.0	3.0	4.0	4.0	4.0
Chinese or other	0.0	0.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Not stated	2.0	1.0	1.0	1.0	2.0	1.0	1.0	1.0	1.0	1.0
Academy 24										
White	90.0	90.0	88.0	88.0	87.0	86.0	85.0	83.0	82.0	81.0
Mixed	2.0	2.0	3.0	3.0	3.0	3.0	3.0	3.0	4.0	4.0
Asian or Asian British	3.0	4.0	4.0	5.0	5.0	5.0	6.0	6.0	6.0	7.0
Black or Black British	2.0	2.0	3.0	3.0	3.0	4.0	4.0	5.0	5.0	6.0
Chinese or other	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	2.0	2.0
Not stated	2.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0

Note: Competitors identified through analysis of 'school choices' on secondary school applications

Figure a27: Rural 1 (Case 5) year 11 student leavers competitor analysis

Destination (% Year 11 leavers)	04-05	05-06	06-07	07-08	08-09	09-10	10-11	11-12	12-13	13-14
Rural 1 (Case 5)										
Stayed at school (sixth form)	0	0	0	0	0	0	0	0	0	0
Sixth form college (other provider)	0	0	0	0	0	0	0	0	4	5
Further education college	1	0	2	3	1	2	12	36	49	58
Apprenticeship	14	18	19	18	26	34	30	24	12	7
Left education	62	64	61	60	58	51	47	31	26	22
Unknown	23	18	18	19	15	13	11	9	9	8
Academy 20										
Stayed at school (sixth form)	0	0	0	0	0	0	0	20	21	22
Sixth form college (other provider)	46	44	44	43	43	45	48	31	35	36
Further education college	28	29	31	32	33	33	32	31	30	31
Apprenticeship	12	12	11	10	9	8	8	7	6	4
Left education	9	9	8	8	7	6	5	5	4	5
Unknown	5	6	6	7	8	8	7	6	4	2
Academy 21										
Stayed at school (sixth form)	0	0	0	0	0	0	0	0	0	0
Sixth form college (other provider)	0	0	1	0	2	0	1	2	1	0
Further education college	22	26	30	32	30	26	27	27	29	31
Apprenticeship	37	33	31	32	33	36	32	31	30	29
Left education	30	30	28	26	25	27	28	29	30	31
Unknown	11	11	10	10	10	11	12	11	10	9
Academy 22										
Stayed at school (sixth form)	-	-	-	-	-	-	-	-	-	-
Sixth form college (other provider)	-	-	-	-	-	-	-	-	-	-
Further education college	-	-	-	-	-	-	-	-	-	-
Apprenticeship	-	-	-	-	-	-	-	-	-	-
Left education	-	-	-	-	-	-	-	-	-	-
Unknown	-	-	-	-	-	-	-	-	-	-
Academy 23										
Stayed at school (sixth form)	0	0	0	0	0	0	0	0	0	49
Sixth form college (other provider)	41	41	44	45	47	47	48	48	49	1
Further education college	33	33	29	28	28	29	29	32	33	33
Apprenticeship	10	10	11	10	9	8	7	7	6	5
Left education	12	12	11	11	10	9	9	8	8	7
Unknown	4	4	5	6	6	7	7	5	4	5
Academy 24										
Stayed at school (sixth form)	0	0	0	0	0	84	83	84	83	81
Sixth form college (other provider)	93	93	92	92	10	9	9	8	8	9
Further education college	7	7	8	7	6	7	8	8	9	10
Apprenticeship	0	0	0	0	0	0	0	0	0	0
Left education	0	0	0	1	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0

Note: Competitors identified through analysis of 'school choices' on secondary school applications

Figure a28: Rural 1 (Case 5) performance journey

Performance	04-05	05-06	06-07	07-08	08-09	09-10	10-11	11-12	12-13	13-14
OfSTED Inspection (1-4)										
Achievement of pupils	3	3	4	-	-	3	2	2	-	1
Teaching quality	3	3	4	-	-	3	2	2	-	1
Behaviour and safety	3	3	3	-	-	2	2	1	-	1
Leadership and management	2	2	4	4	-	2	1	1	-	1
Overall	3	3	4	4	-	3	2	2	-	1
Exam results										
Secondary (% 5+ C or above)	14	17	18	22	29	31	31	33	63	68
Secondary (% 5+ B or above)	0	0	0	0	0	0	0	0	4	8
Secondary (% 5+ A or above)	0	0	0	0	0	0	0	0	2	5
Revenue (£000)										
Teaching	4,626	4,635	3,918	3,376	2,815	2,757	2,175	1,954	2,613	3,017
Non-teaching	0	0	0	0	6	25	96	134	267	396
Offsite Provision	0	0	0	0	0	0	270	480	740	940
Total	4,626	4,635	3,918	3,376	2,821	2,782	2,541	2,568	3,620	4,353
Costs (£000)										
Teaching	3,297	3,125	2,756	2,540	2,321	2,153	1,957	2,086	2,398	2,575
Teaching years 7-9	1,912	2,423	2,042	1,860	1,619	1,743	1,537	1,510	1,628	1,521
Teaching year 10	701	704	679	701	678	424	431	564	673	689
Teaching year 11	684	702	714	680	702	410	420	576	770	1,054
% of teaching costs by year 11	20	22	25	26	30	19	21	27	32	40
Non-teaching	521	573	424	415	674	798	763	714	698	705
Total	4,502	4,400	3,894	3,635	3,697	3,361	3,140	3,376	3,866	4,334
Operating profit (£000)	124	235	24	(259)	(876)	(579)	(599)	(808)	(246)	19
Secondary students Per year										
Secondary	1,032	1,034	874	753	628	615	486	436	583	673
Total available capacity	1,050	1,050	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1200
Number of applications	206	198	175	168	154	140	121	134	119	163
Applications (% available capacity)	98	94	71	65	62	57	49	55	49	67
Available Spaces in Year 7	210	210	245	245	245	245	245	245	245	245
% of applications outside 1 mile	0	0	0	0	0	0	0	0	1	3
% total capacity filled	98	98	72	62	52	51	40	36	48	56
Rejected applications within 1 mile	0	0	0	0	0	17	22	36	39	73
Rejected applications outside 1 m	0	0	0	0	0	0	0	0	0	1
Offsite Provision Students Per year										
Total	0	0	0	0	0	0	27	48	74	94
Available capacity	0	0	0	0	0	0	200	200	200	200
% capacity filled	0	0	0	0	0	0	13	24	37	47
Competitiveness										
Students living within 1 mile	1,032	1,034	874	753	628	615	486	412	431	415
Students living outside 1 mile	0	0	0	0	0	0	0	24	152	258
% students outside 1 mile	0	0	0	0	0	0	-0	6	35	62
Teaching quality (% lessons)										
Outstanding	6	7	9	8	14	22	28	33	37	43
Good	30	29	28	27	29	33	37	40	46	51
Requires Improvement	57	56	54	55	47	37	28	21	13	3
Inadequate	7	8	9	10	10	8	7	6	4	3

Student quality										
Number of incidents	853	878	903	914	919	867	756	674	591	451
Student attendance (% classes)	89	90	91	92	92	91	92	93	94	95
Fixed term exclusions	16	19	25	47	55	58	78	84	16	14
Permanent exclusions	0	0	0	0	3	5	8	11	0	0
Teacher quality										
Number	74	75	58	49	41	35	29	27	36	44
Number on capability	0	0	0	0	0	10	11	10	11	8
With no sickness	69	70	38	32	30	29	28	25	34	41
On long term sick (>20 days)	2	1	2	3	8	3	0	0	0	0
Days lost	121	138	140	156	187	119	87	76	81	93
Teachers recruited										
Year 7-9	1	1	0	1	0	0	0	0	10	9
Year 10	0	0	0	0	0	0	0	1	4	3
Year 11	0	0	0	0	0	0	0	6	4	4
Offsite provision	0	0	0	0	0	0	1	1	2	1
Teachers managed out by capability										
Year 7-9	0	0	2	1	0	0	1	0	4	3
Year 10	0	0	0	0	0	0	0	0	3	1
Year 11	0	0	0	0	0	0	0	6	3	2
Offsite provision	0	0	0	0	0	0	0	0	0	0
Teachers lost through natural attrition										
Year 7-9	0	0	12	4	5	4	3	3	1	0
Year 10	0	0	2	3	1	1	2	1	0	2
Year 11	0	0	1	0	2	1	1	0	1	1
Offsite provision	0	0	0	0	0	0	0	0	1	0
Support staff										
Number	74	77	76	73	72	40	23	24	26	29
Number recruited	0	3	0	0	0	2	0	1	2	3
Lost through natural attrition	0	0	1	3	1	1	0	0	0	0
Managed out by capability	0	0	0	0	0	33	0	0	0	0
Number with no sickness	46	42	38	39	31	23	34	64	79	85
Number on long term sick (>20 days)	1	2	2	3	13	1	1	0	0	0
Days lost	111	123	157	163	204	129	98	87	85	89

Note: Figures are for the end of the academic year shown

Figure a29: Rural 1 (Case 5) teaching resource allocation

Performance	04-05	05-06	06-07	07-08	08-09	09-10	10-11	11-12	12-13	13-14
Students per year										
Secondary (Year 7 to 9)	618	626	486	421	360	352	292	242	374	446
Secondary (Year 10)	205	203	185	147	125	122	96	98	111	116
Secondary (Year 11)	209	205	203	185	143	141	98	96	98	111
Offsite provision	0	0	0	0	0	0	27	48	74	94
Total	1,032	1,034	874	753	628	615	513	484	657	767
Teachers per year										
Secondary (Year 7 to 9)	47	48	34	28	23	19	15	12	18	24
Secondary (Year 10)	14	14	12	9	8	7	5	5	6	6
Secondary (Year 11)	13	13	12	12	10	9	8	8	9	10
Offsite provision	0	0	0	0	0	0	1	2	3	4
Total	74	75	58	49	41	35	29	27	36	44
Students per teacher										
Secondary (Year 7 to 9)	13	13	14	15	16	19	20	21	20	19
Secondary (Year 10)	14	14	15	16	17	18	19	20	19	18
Secondary (Year 11)	16	16	16	15	15	14	13	12	11	11
Offsite provision	0	0	0	0	0	0	27	24	25	23
Average	14	14	15	15	16	16	17	18	18	17
Average teacher salary (£000)										
Secondary (Year 7 to 9)	31	32	32	31	33	34	37	39	40	41
Secondary (Year 10)	30	31	31	32	32	33	36	38	39	40
Secondary (Year 11)	31	30	30	31	33	32	52	53	55	58
Offsite provision	0	0	0	0	0	0	28	31	32	33
Total	31	31	31	31	32	33	35	40	42	43

Note: Figures are for the end of the academic year shown

Figure a30: Rural 1 (Case 5) market served and needs

Market served and needs	04-05	05-06	06-07	07-08	08-09	09-10	10-11	11-12	12-13	13-14
Market served										
Students within 1 mile	1,032	1,034	874	753	628	615	486	412	431	415
Students outside 1 mile	0	0	0	0	0	0	0	24	152	258
% outside 1 mile	0	0	0	0	0	0	0	6	35	62
Key order-winner (% customers)										
Location	100	100	100	100	100	100	98	54	32	25
Speed of admissions process	0	0	0	0	0	0	0	2	1	1
Academic product design	0	0	0	0	0	0	2	35	50	55
Non Academic product design	0	0	0	0	0	0	0	9	17	19
Winning students within 1 mile										
Location	100	100	100	100	100	100	98	76	64	52
Academic product design	Q	Q	Q	Q	Q	Q	2	15	22	27
Non Academic product design	Q	Q	Q	Q	Q	Q	Q	9	14	21
Front Office Customer service	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Customer relationship	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Speed of admissions process	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Retaining customers within 1 mile										
Location	100	100	100	100	100	100	100	78	58	45
Academic product design	Q	Q	Q	Q	Q	Q	Q	19	28	39
Non Academic product design	Q	Q	Q	Q	Q	Q	Q	3	14	16
Front Office Customer service	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Customer relationship	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Speed of admissions process	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Winning students outside 1 mile										
Location	-	-	-	-	-	-	-	10	6	5
Academic product design	-	-	-	-	-	-	-	71	74	77
Non Academic product design	-	-	-	-	-	-	-	9	16	15
Front Office Customer service	-	-	-	-	-	-	-	5	Q	Q
Customer relationship	-	-	-	-	-	-	-	Q	Q	Q
Speed of admissions process	-	-	-	-	-	-	-	5	4	3
Retaining customers outside 1 mile										
Location	-	-	-	-	-	-	-	-	Q	Q
Academic product design	-	-	-	-	-	-	-	-	76	77
Non Academic product design	-	-	-	-	-	-	-	-	24	23
Front Office Customer service	-	-	-	-	-	-	-	-	Q	Q
Customer relationship	-	-	-	-	-	-	-	-	Q	Q
Speed of admissions process	-	-	-	-	-	-	-	-	Q	Q

Definitions:

Location	Location of academy site
Academic product design	The academic curriculum design and delivery
Non Academic product design	The non academic curriculum (including sport) design and delivery
Front Office Customer service	Customer service provided by front office employees
Customer relationship	Relationship between customers and front office employees
Speed of admissions process	Speed that admissions are processed and offers made to customers

Appendix 6: Case data for Rural 2 (Case 6)

Figure a31: Rural 2 (Case 6) competitor analysis

Performance	04-05	05-06	06-07	07-08	08-09	09-10	10-11	11-12	12-13	13-14
OfSTED Inspection (1-4)										
Rural 2 (Case 6)	2	-	3	-	4	-	3	-	2	-
Academy 25	-	2	-	-	2	-	-	2	-	4
Academy 26	-	-	-	-	-	-	-	-	-	1
Academy 27	-	4	3	-	-	3	-	3	-	3
Academy 28	1	-	-	1	-	-	1	-	-	2
Exam results (% 5+ C or above)										
Rural 2 (Case 6)	45	42	41	42	31	40	43	48	54	58
Academy 25	50	52	51	50	46	42	46	50	60	37
Academy 26	-	-	-	-	-	-	-	-	-	-
Academy 27	32	34	38	40	41	43	44	54	62	47
Academy 28	69	62	61	60	55	52	57	66	69	64
Progress measure Maths (% 3+ LoP)										
Rural 2 (Case 6)	-	-	-	-	-	53	58	66	76	74
Academy 25	-	-	-	-	-	48	52	63	58	56
Academy 26	-	-	-	-	-	-	-	-	-	-
Academy 27	-	-	-	-	-	41	49	63	67	55
Academy 28	-	-	-	-	-	56	71	80	72	69
Progress measure English (% 3+ LoP)										
Rural 2 (Case 6)	-	-	-	-	-	59	64	58	87	87
Academy 25	-	-	-	-	-	64	69	65	69	58
Academy 26	-	-	-	-	-	-	-	-	-	-
Academy 27	-	-	-	-	-	61	64	70	79	73
Academy 28	-	-	-	-	-	64	67	70	73	64
Revenue (£000)										
Rural 2 (Case 6)	5,914	5,829	5,469	5,551	5,581	6,187	5,584	5,510	5,384	5,380
Academy 25	5,153	5,268	5,222	5,287	5,294	5,369	5,421	5,434	5,471	4,983
Academy 26	-	-	-	-	-	-	0,540	1,081	1,622	2,161
Academy 27	5,335	5,354	5,371	5,401	5,420	5,642	5,656	5,420	5,349	5,339
Academy 28	4,795	4,808	4,830	4,904	4,795	4,839	4,861	4,709	4,695	4,687
Primary students										
Rural 2 (Case 6)	0	0	0	0	0	0	0	0	0	0
Academy 25	0	0	0	0	0	0	0	0	0	0
Academy 26	-	-	-	-	-	-	0	0	0	0
Academy 27	0	0	0	0	0	0	0	0	0	0
Academy 28	0	0	0	0	0	0	0	0	0	0
Secondary students										
Rural 2 (Case 6)	1314	1295	1215	1234	1240	1124	1012	984	921	902
Academy 25	1120	1145	1135	1149	1135	1167	1178	1181	1189	1083
Academy 26	-	-	-	-	-	-	120	240	360	480
Academy 27	1131	1135	1139	1145	1149	1196	1199	1149	1134	1130
Academy 28	1104	1107	1112	1129	1104	1114	1119	1084	1081	1079
Total	4669	4682	4601	4657	4628	4601	4628	4638	4685	4674
Market share (% students)										
Rural 2 (Case 6)	28	28	26	26	27	24	22	21	20	19
Academy 25	24	24	25	25	25	25	25	25	25	23
Academy 26	-	-	-	-	-	-	3	5	8	10

Performance	04-05	05-06	06-07	07-08	08-09	09-10	10-11	11-12	12-13	13-14
Academy 27	24	24	25	25	25	26	26	25	24	24
Academy 28	24	24	24	24	24	24	24	23	23	23
Market share (% competitors)	-	-	-	-	109	96	112	107	100	95
Sixth form students										
Rural 2 (Case 6)	0	0	0	0	0	0	0	0	0	0
Academy 25	0	0	0	0	0	0	0	0	0	0
Academy 26	-	-	-	-	-	-	0	0	0	0
Academy 27	0	0	0	0	0	0	0	0	0	0
Academy 28	0	0	0	0	0	0	0	0	0	0
Primary student capacity (number)										
Rural 2 (Case 6)	0	0	0	0	0	0	0	0	0	0
Academy 25	0	0	0	0	0	0	0	0	0	0
Academy 26	-	-	-	-	-	-	0	0	0	0
Academy 27	0	0	0	0	0	0	0	0	0	0
Academy 28	0	0	0	0	0	0	0	0	0	0
Secondary student capacity (number)										
Rural 2 (Case 6)	1300	1300	1300	1300	1300	1100	1100	1100	1100	1100
Academy 25	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200
Academy 26	-	-	-	-	-	-	750	750	750	750
Academy 27	1320	1320	1320	1320	1320	1320	1320	1320	1320	1320
Academy 28	1205	1205	1205	1205	1205	1205	1205	1205	1205	1205
Sixth form student capacity (number)										
Rural 2 (Case 6)	0	0	0	0	0	0	0	0	0	0
Academy 25	0	0	0	0	0	0	0	0	0	0
Academy 26	-	-	-	-	-	-	0	0	0	0
Academy 27	0	0	0	0	0	0	0	0	0	0
Academy 28	0	0	0	0	0	0	0	0	0	0
Primary teacher capacity (number)										
Rural 2 (Case 6)	0	0	0	0	0	0	0	0	0	0
Academy 25	0	0	0	0	0	0	0	0	0	0
Academy 26	-	-	-	-	-	-	0	0	0	0
Academy 27	0	0	0	0	0	0	0	0	0	0
Academy 28	0	0	0	0	0	0	0	0	0	0
Secondary teacher capacity (number)										
Rural 2 (Case 6)	88	88	85	85	85	80	78	76	77	75
Academy 25	75	76	76	77	76	78	79	79	79	72
Academy 26	-	-	-	-	-	-	9	18	30	40
Academy 27	75	76	76	76	77	80	80	77	76	75
Academy 28	74	74	74	75	74	74	75	72	72	72
Sixth form teacher capacity (number)										
Rural 2 (Case 6)	0	0	0	0	0	0	0	0	0	0
Academy 25	0	0	0	0	0	0	0	0	0	0
Academy 26	-	-	-	-	-	-	0	0	0	0
Academy 27	0	0	0	0	0	0	0	0	0	0
Academy 28	0	0	0	0	0	0	0	0	0	0

Note: Progress measures were not introduced into the UK education sector until 2008-09

Figure a32: Rural 2 (Case 6) secondary student ethnicity competitor analysis

Student ethnicity (% total)	04-05	05-06	06-07	07-08	08-09	09-10	10-11	11-12	12-13	13-14
Rural 2 (Case 6)										
White	89.0	88.0	87.0	86.0	85.0	84.0	83.0	82.0	81.0	80.0
Mixed	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Asian or Asian British	3.0	3.0	3.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Black or Black British	2.0	3.0	4.0	4.0	5.0	6.0	7.0	8.0	8.0	9.0
Chinese or other	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Not stated	1.0	1.0	1.0	1.0	1.0	1.0	2.0	2.0	2.0	1.0
Academy 25										
White	90.0	90.0	89.0	88.0	88.0	87.0	86.0	84.0	83.0	82.0
Mixed	2.0	3.0	3.0	3.0	3.0	3.0	3.0	4.0	4.0	4.0
Asian or Asian British	4.0	4.0	4.0	5.0	5.0	5.0	6.0	6.0	7.0	7.0
Black or Black British	2.0	2.0	2.0	2.0	2.0	3.0	3.0	4.0	4.0	4.0
Chinese or other	0.0	0.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Not stated	2.0	1.0	1.0	1.0	2.0	1.0	1.0	1.0	1.0	1.0
Academy 26										
White	-	-	-	-	-	-	82.0	81.0	81.0	82.0
Mixed	-	-	-	-	-	-	6.0	6.0	7.0	6.0
Asian or Asian British	-	-	-	-	-	-	5.0	6.0	6.0	5.0
Black or Black British	-	-	-	-	-	-	5.0	5.0	5.0	5.0
Chinese or other	-	-	-	-	-	-	1.0	1.0	1.0	1.0
Not stated	-	-	-	-	-	-	1.0	1.0	1.0	1.0
Academy 27										
White	90.0	90.0	88.0	88.0	87.0	86.0	85.0	83.0	83.0	84.0
Mixed	2.0	2.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.0
Asian or Asian British	3.0	4.0	4.0	5.0	5.0	5.0	6.0	6.0	6.0	6.0
Black or Black British	2.0	2.0	3.0	3.0	3.0	4.0	4.0	5.0	5.0	4.0
Chinese or other	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Not stated	2.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Academy 28										
White	90.0	89.0	88.0	88.0	89.0	90.0	91.0	93.0	92.0	93.0
Mixed	3.0	3.0	3.0	4.0	4.0	3.0	3.0	3.0	2.0	2.0
Asian or Asian British	2.0	3.0	4.0	4.0	4.0	3.0	3.0	3.0	2.0	1.0
Black or Black British	1.0	2.0	2.0	2.0	2.0	2.0	2.0	3.0	3.0	3.0
Chinese or other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Not stated	3.0	2.0	2.0	2.0	2.0	1.0	1.0	1.0	1.0	1.0

Note: Competitors identified through analysis of 'school choices' on secondary school applications

Figure a33: Rural 2 (Case 6) year 11 student leavers competitor analysis

Destination (% Year 11 leavers)	04-05	05-06	06-07	07-08	08-09	09-10	10-11	11-12	12-13	13-14
Rural 2 (Case 6)										
Stayed at school (sixth form)	0	0	0	0	0	0	6	16	21	22
Sixth form college (other provider)	46	44	44	43	43	45	42	36	35	36
Further education college	28	29	31	32	33	33	32	31	30	31
Apprenticeship	12	12	11	10	9	8	8	7	6	4
Left education	9	9	8	8	7	6	5	5	4	5
Unknown	5	6	6	7	8	8	7	5	4	2
Academy 25										
Stayed at school (sixth form)	9	11	12	15	12	6	3	0	0	0
Sixth form college (other provider)	62	63	63	64	65	67	68	66	61	51
Further education college	2	1	2	1	3	12	14	21	11	9
Apprenticeship	12	14	11	6	9	5	7	4	19	21
Left education	15	11	12	13	11	10	6	7	9	18
Unknown	0	0	0	1	0	0	2	2	0	1
Academy 26										
Stayed at school (sixth form)	-	-	-	-	-	-	-	-	-	-
Sixth form college (other provider)	-	-	-	-	-	-	-	-	-	-
Further education college	-	-	-	-	-	-	-	-	-	-
Apprenticeship	-	-	-	-	-	-	-	-	-	-
Left education	-	-	-	-	-	-	-	-	-	-
Unknown	-	-	-	-	-	-	-	-	-	-
Academy 27										
Stayed at school (sixth form)	0	0	0	0	0	0	0	0	0	49
Sixth form college (other provider)	41	41	44	45	47	47	48	48	49	1
Further education college	33	33	29	28	28	29	29	32	33	33
Apprenticeship	10	10	11	10	9	8	7	7	6	5
Left education	12	12	11	11	10	9	9	8	8	7
Unknown	4	4	5	6	6	7	7	5	4	5
Academy 28										
Stayed at school (sixth form)	0	0	0	0	84	84	83	84	83	81
Sixth form college (other provider)	93	93	92	92	10	9	9	8	8	9
Further education college	7	7	8	7	6	7	8	8	9	10
Apprenticeship	0	0	0	0	0	0	0	0	0	0
Left education	0	0	0	1	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0

Note: Competitors identified through analysis of 'school choices' on secondary school applications

Figure a34: Rural 2 (Case 6) performance journey

Performance	04-05	05-06	06-07	07-08	08-09	09-10	10-11	11-12	12-13	13-14
OfSTED Inspection (1-4)										
Achievement of pupils	2	-	3	-	3	-	3	-	2	-
Teaching quality	2	-	2	-	3	-	3	-	2	-
Behaviour and safety	2	-	3	-	4	-	3	-	1	-
Leadership and management	2	-	2	-	3	-	1	-	1	-
Overall	2	-	3	-	4	-	3	-	2	-
Exam results										
Secondary (% 5+ C or above)	45	42	41	42	31	40	43	48	54	58
Secondary (% 5+ B or above)	0	0	0	0	0	0	0	0	3	5
Secondary (% 5+ A or above)	0	0	0	0	0	0	0	1	1	2
Revenue (£000)										
Teaching	5,914	5,829	5,469	5,551	5,581	6,187	5,570	5,415	5,069	4,965
Non-teaching	0	0	0	0	0	0	14	95	315	415
Total	5,914	5,829	5,469	5,551	5,581	6,187	5,584	5,510	5,384	5,380
Costs (£000)										
Teaching	2,841	2,893	2,816	2,803	2,918	2,738	2,642	2,626	3,018	3,174
Teaching years 7-9	1,625	1,676	1,612	1,563	1,661	1,612	1,501	1,394	1,394	1,439
Teaching year 10	614	633	633	652	652	572	572	588	700	716
Teaching year 11	602	584	571	588	605	554	569	644	924	1,019
% of teaching costs by year 11	21	20	20	21	21	20	22	25	31	32
Non-teaching	2,029	2,014	2,015	2,021	2,019	2,058	2,043	2,054	2,049	2,052
Total	4,870	4,907	4,831	4,824	4,937	4,796	4,685	4,680	5,067	5,226
Operating profit (£000)	1,044	922	638	727	644	1,391	885	735	2	(261)
Secondary students Per year										
Secondary	1314	1295	1215	1234	1240	1124	1012	984	921	902
Total available capacity	1300	1300	1300	1300	1300	1100	1100	1100	1100	1100
Number of applications	272	268	251	255	256	232	209	203	190	186
Applications (% available capacity)	101	99	93	94	95	126	113	110	103	101
Available Spaces in Year 7	270	270	270	270	270	185	185	185	185	185
% of applications outside 1 mile	0	0	0	0	0	0	0	0	1	3
% total capacity filled	101	100	93	95	95	102	92	89	84	82
Rejected applications within 1 mile	2	0	0	0	0	47	24	18	5	1
Rejected applications outside 1 m	0	0	0	0	0	0	0	0	0	0
Competitiveness										
Students living within 1 mile	1314	1295	1215	1234	1240	1124	1012	984	921	902
Students living outside 1 mile	0	0	0	0	0	0	0	0	0	0
% students outside 1 mile	0	0	0	0	0	0	0	0	0	0
Teaching quality (% lessons)										
Outstanding	20	20	21	21	21	22	23	25	26	27
Good	38	41	42	42	47	55	57	53	52	50
Requires Improvement	38	35	33	33	29	21	18	20	20	22
Inadequate	4	4	4	4	3	2	2	2	2	1
Student quality										
Number of incidents	824	843	894	875	852	1084	984	895	814	753
Student attendance (% classes)	92	92	93	92	94	94	94	94	94	94
Fixed term exclusions	34	38	41	39	34	85	93	81	76	72
Permanent exclusions	0	0	1	2	1	4	2	1	0	0

251

Teacher quality										
Number	88	88	85	85	85	80	78	76	77	75
Number on capability	0	0	1	1	2	15	19	13	8	3
With no sickness	62	67	66	65	54	41	68	69	64	61
On long term sick (>20 days)	1	1	2	2	6	8	9	6	3	2
Days lost	451	442	421	418	479	484	412	398	395	391
Teachers recruited										
Year 7-9	0	0	0	0	0	0	0	0	0	3
Year 10	0	0	0	0	0	0	0	0	1	0
Year 11	0	0	0	0	0	0	0	0	2	0
Teachers managed out by capability										
Year 7-9	0	0	0	0	0	0	0	0	0	2
Year 10	0	0	0	0	0	3	0	0	0	0
Year 11	0	0	0	0	0	2	0	0	2	1
Teachers lost through natural attrition										
Year 7-9	0	0	2	0	0	0	2	2	0	1
Year 10	0	0	0	0	0	0	0	0	0	0
Year 11	0	0	1	0	0	0	0	0	0	1
Support staff										
Number	70	70	70	70	70	62	59	55	52	51
Number recruited	0	0	0	0	0	0	0	0	0	0
Lost through natural attrition	0	0	0	0	0	8	3	4	3	1
Managed out by capability	0	0	0	0	0	0	0	0	0	0
Number with no sickness	51	55	49	52	48	40	49	44	47	48
Number on long term sick (>20 days)	1	2	1	2	4	8	5	2	1	0
Days lost	90	103	114	99	124	167	139	104	98	87

Note: Figures are for the end of the academic year shown

Figure a35: Rural 2 (Case 6) teaching resource allocation

Performance	04-05	05-06	06-07	07-08	08-09	09-10	10-11	11-12	12-13	13-14
Students per year										
Secondary (Year 7 to 9)	815	803	753	765	769	697	627	610	571	559
Secondary (Year 10)	263	259	243	247	248	225	202	197	184	180
Secondary (Year 11)	237	233	219	222	223	202	182	177	166	162
Total	1314	1295	1215	1234	1240	1124	1012	984	921	902
Teachers per year										
Secondary (Year 7 to 9)	51	51	49	49	49	49	47	45	45	45
Secondary (Year 10)	19	19	19	19	19	16	16	16	16	16
Secondary (Year 11)	18	18	17	17	17	15	15	15	16	15
Total	88	88	85	85	85	80	78	76	77	75
Students per teacher										
Secondary (Year 7 to 9)	16	16	15	16	16	14	13	14	13	12
Secondary (Year 10)	14	14	13	13	13	14	13	12	12	11
Secondary (Year 11)	13	13	13	13	13	13	12	12	10	11
Average	14	14	14	14	14	14	13	13	12	12
Average teacher salary (£000)										
Secondary (Year 7 to 9)	31	32	32	31	33	32	31	30	30	31
Secondary (Year 10)	30	31	31	32	32	33	33	34	41	42
Secondary (Year 11)	31	30	31	32	33	34	35	40	55	65
Total	31	32	32	31	32	32	32	33	40	45

Note: Figures are for the end of the academic year shown

Figure a36: Rural 2 (Case 6) market served and nee

Market served and needs	04-05	05-06	06-07	07-08	08-09	09-10	10-11	11-12	12-13	13-14
Market served										
Students within 1 mile	1314	1295	1215	1234	1240	1124	1012	984	921	902
Students outside 1 mile	0	0	0	0	0	0	0	0	0	0
% outside 1 mile	0	0	0	0	0	0	0	0	0	0
Key order-winner (% customers)										
Location	100	100	100	100	100	100	100	100	100	100
Speed of admissions process	0	0	0	0	0	0	0	0	0	0
Academic product design	0	0	0	0	0	0	0	0	0	0
Non Academic product design	0	0	0	0	0	0	0	0	0	0
Winning students within 1 mile										
Location	100	100	100	100	100	100	100	100	100	100
Academic product design	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Non Academic product design	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Front Office Customer service	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Customer relationship	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Speed of admissions process	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Retaining customers within 1 mile										
Location	100	100	100	100	100	100	100	100	100	100
Academic product design	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Non Academic product design	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Front Office Customer service	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Customer relationship	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Speed of admissions process	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Winning students outside 1 mile										
Location	-	-	-	-	-	-	-	-	-	-
Academic product design	-	-	-	-	-	-	-	-	-	-
Non Academic product design	-	-	-	-	-	-	-	-	-	-
Front Office Customer service	-	-	-	-	-	-	-	-	-	-
Customer relationship	-	-	-	-	-	-	-	-	-	-
Speed of admissions process	-	-	-	-	-	-	-	-	-	-
Retaining customers outside 1 mile										
Location	-	-	-	-	-	-	-	-	-	-
Academic product design	-	-	-	-	-	-	-	-	-	-
Non Academic product design	-	-	-	-	-	-	-	-	-	-
Front Office Customer service	-	-	-	-	-	-	-	-	-	-
Customer relationship	-	-	-	-	-	-	-	-	-	-
Speed of admissions process	-	-	-	-	-	-	-	-	-	-

Definitions:

Location	Location of academy site
Academic product design	The academic curriculum design and delivery
Non Academic product design	The non academic curriculum (including sport) design and delivery
Front Office Customer service	Customer service provided by front office employees
Customer relationship	Relationship between customers and front office employees
Speed of admissions process	Speed that admissions are processed and offers made to customers

Appendix 7: Case data for Coastal 1 (Case 7)

Figure a37: Coastal 1 (Case 7) competitor analysis

Performance	04-05	05-06	06-07	07-08	08-09	09-10	10-11	11-12	12-13	13-14
OfSTED Inspection (1-4)										
Coastal 1 (Case 7)	-	-	-	3	4	-	3	4	-	2
Previous School 1	3	-	3	-	-	-	-	-	-	-
Previous School 2	3	-	4	-	-	-	-	-	-	-
Academy 29	3	-	2	-	3	-	2	-	2	-
Academy 30	1	-	-	-	2	-	-	2	-	-
Exam results (% 5+ C or above)										
Coastal 1 (Case 7)	-	-	-	25	18	25	29	24	36	42
Previous School 1	31	32	30	-	-	-	-	-	-	-
Previous School 2	20	20	19	-	-	-	-	-	-	-
Academy 29	49	50	50	49	48	52	54	58	60	61
Academy 30	67	68	70	71	69	68	67	66	64	50
Progress measure Maths (% 3+ LoP)										
Coastal 1 (Case 7)	-	-	-	-	-	37	40	41	60	79
Academy 29	-	-	-	-	-	58	62	63	66	68
Academy 30	-	-	-	-	-	50	52	55	59	65
Progress measure English (% 3+ LoP)										
Coastal 1 (Case 7)	-	-	-	-	-	31	33	32	61	74
Academy 29	-	-	-	-	-	61	62	64	67	70
Academy 30	-	-	-	-	-	40	42	44	45	47
Revenue (£000)										
Coastal 1 (Case 7)	8,120	8,223	8,919	8,889	8,421	8,395	5,766	6,064	5,645	5,272
Previous School 1	1,849	1,798	1,807	-	-	-	-	-	-	-
Previous School 2	6,271	6,425	7,112	-	-	-	-	-	-	-
Academy 29	2,920	3,027	2,963	2,784	2,774	2,803	4,771	4,766	4,790	4,630
Academy 30	4,859	4,864	4,864	4,859	4,868	4,868	6,433	6,452	6,516	6,672
Secondary students										
Coastal 1 (Case 7)	1,910	1,933	1,960	1,956	1,864	1,843	1,250	1,250	1,064	950
Previous School 1	435	421	397	-	-	-	-	-	-	-
Previous School 2	1,475	1,512	1,563	-	-	-	-	-	-	-
Academy 29	601	623	610	573	571	577	982	981	986	953
Academy 30	1,000	1,001	1,001	1,000	1,002	1,002	1,324	1,328	1,341	1,374
Total	3,511	3,557	3,571	3,529	3,437	3,422	3,556	3,559	3,391	3,277
Market share (% students)										
Coastal 1 (Case 7)	54	54	55	55	54	54	35	35	31	29
Previous School 1	12	12	11	-	-	-	-	-	-	-
Previous School 2	42	43	44	-	-	-	-	-	-	-
Academy 29	17	18	17	16	17	17	28	28	29	29
Academy 30	28	28	28	28	29	29	37	37	40	42
Market share (% competitors)	239	238	243	249	237	233	108	108	91	82
Secondary student capacity (number)										
Coastal 1 (Case 7)	2,500	2,500	2,500	2,500	2,500	2,500	1,250	1,250	1,250	1,250
Previous School 1	1,000	1,000	1,000	-	-	-	-	-	-	-
Previous School 2	1,500	1,500	1,500	-	-	-	-	-	-	-
Academy 29	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
Academy 30	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000

Secondary teacher capacity (number)

Performance	04-05	05-06	06-07	07-08	08-09	09-10	10-11	11-12	12-13	13-14
Coastal 1 (Case 7)	196	196	184	130	116	131	89	89	76	63
Previous School 1	98	98	92	-	-	-	-	-	-	-
Previous School 2	98	98	92	-	-	-	-	-	-	-
Academy 29	24	26	25	25	35	36	47	48	48	49
Academy 30	54	54	54	54	59	59	68	69	69	73

Note: None of the schools have primary or sixth form students
Note: Progress measures were not introduced into the UK education sector until 2008-09

Figure a38: Coastal 1 (Case 7) student ethnicity competitor analysis

Student ethnicity (% total)	04-05	05-06	06-07	07-08	08-09	09-10	10-11	11-12	12-13	13-14
Coastal 1 (Case 7)										
White	91.0	91.0	92.0	91.0	91.0	90.0	89.0	83.0	78.0	73.0
Mixed	2.0	2.0	3.0	2.0	2.0	3.0	4.0	6.0	8.0	9.0
Black or Black British	1.0	0.0	0.0	3.0	3.0	3.0	3.0	6.0	6.0	8.0
Chinese	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	4.0
Arab or any other	2.0	2.0	1.0	1.0	1.0	1.0	1.0	2.0	3.0	3.0
Asian or Asian British	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Not stated	2.0	2.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Previous School 1										
White	83.0	83.0	85.0	-	-	-	-	-	-	-
Mixed	3.0	3.0	4.0	-	-	-	-	-	-	-
Black or Black British	3.0	2.0	1.0	-	-	-	-	-	-	-
Chinese	0.0	0.0	0.0	-	-	-	-	-	-	-
Arab or any other	4.0	4.0	3.0	-	-	-	-	-	-	-
Asian or Asian British	4.0	5.0	5.0	-	-	-	-	-	-	-
Not stated	3.0	3.0	2.0	-	-	-	-	-	-	-
Previous School 2										
White	94.0	94.0	94.0	-	-	-	-	-	-	-
Mixed	2.0	2.0	3.0	-	-	-	-	-	-	-
Black or Black British	0.0	0.0	0.0	-	-	-	-	-	-	-
Chinese	0.0	0.0	0.0	-	-	-	-	-	-	-
Arab or any other	1.0	1.0	1.0	-	-	-	-	-	-	-
Asian or Asian British	1.0	1.0	1.0	-	-	-	-	-	-	-
Not stated	2.0	2.0	1.0	-	-	-	-	-	-	-
Academy 29										
White	85.0	85.0	84.0	84.0	83.0	83.0	82.0	82.0	81.0	80.0
Mixed	3.0	3.0	3.0	3.0	3.0	2.0	2.0	2.0	2.0	2.0
Black or Black British	3.0	3.0	3.0	3.0	3.0	3.0	2.0	2.0	2.0	2.0
Chinese	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	1.0	2.0
Arab or any other	1.0	1.0	1.0	1.0	2.0	2.0	2.0	2.0	2.0	2.0
Asian or Asian British	6.0	6.0	7.0	7.0	8.0	9.0	10.0	10.0	10.0	10.0
Not stated	2.0	2.0	2.0	2.0	1.0	1.0	1.0	2.0	2.0	2.0
Academy 30										
White	84.0	83.0	83.0	82.0	82.0	81.0	81.0	80.0	79.0	79.0
Mixed	3.0	3.0	3.0	3.0	3.0	2.0	2.0	2.0	2.0	2.0
Black or Black British	2.0	2.0	2.0	2.0	3.0	3.0	3.0	2.0	2.0	1.0
Chinese	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Arab or any other	2.0	3.0	2.0	3.0	1.0	4.0	4.0	5.0	6.0	7.0
Asian or Asian British	6.0	6.0	7.0	7.0	8.0	8.0	8.0	9.0	9.0	9.0
Not stated	3.0	3.0	3.0	3.0	3.0	2.0	2.0	2.0	2.0	2.0

Note: Competitors identified through analysis of 'school choices' on secondary school applications

Figure a39: Coastal 1 (Case 7) year 11 student leavers competitor analysis

Destination (% Year 11 leavers)	04-05	05-06	06-07	07-08	08-09	09-10	10-11	11-12	12-13	13-14
Coastal 1 (Case 7)										
Stayed at school (sixth form)	0	0	0	0	0	0	0	0	2	6
Sixth form college (other provider)	0	0	0	1	4	7	14	35	47	55
Further education college	18	14	12	27	26	26	27	29	30	28
Apprenticeship	4	8	8	6	5	4	21	20	4	2
Left education	77	77	78	66	65	61	35	16	11	8
Unknown	1	1	2	0	0	2	3	0	6	1
Previous School 1										
Stayed at school (sixth form)	0	0	0	-	-	-	-	-	-	-
Sixth form college (other provider)	0	0	0	-	-	-	-	-	-	-
Further education college	44	46	47	-	-	-	-	-	-	-
Apprenticeship	8	8	8	-	-	-	-	-	-	-
Left education	47	43	41	-	-	-	-	-	-	-
Unknown	1	3	4	-	-	-	-	-	-	-
Previous School 2										
Stayed at school (sixth form)	0	0	0	-	-	-	-	-	-	-
Sixth form college (other provider)	0	0	0	-	-	-	-	-	-	-
Further education college	10	5	3	-	-	-	-	-	-	-
Apprenticeship	3	8	8	-	-	-	-	-	-	-
Left education	86	87	88	-	-	-	-	-	-	-
Unknown	1	0	1	-	-	-	-	-	-	-
Academy 29										
Stayed at school (sixth form)	0	0	0	0	0	0	0	1	2	3
Sixth form college (other provider)	28	31	34	36	38	40	42	41	42	44
Further education college	18	20	23	21	22	24	25	27	26	27
Apprenticeship	40	41	38	34	31	28	24	19	13	8
Left education	5	4	5	9	8	6	7	10	11	12
Unknown	9	4	0	0	1	2	2	2	6	6
Academy 30										
Stayed at school (sixth form)	9	11	12	15	12	6	3	0	0	0
Sixth form college (other provider)	62	63	63	64	65	67	68	66	61	51
Further education college	2	1	2	1	3	12	14	21	11	9
Apprenticeship	12	14	11	6	9	5	7	4	19	21
Left education	15	11	12	13	11	10	6	7	9	18
Unknown	0	0	0	1	0	0	2	2	0	1

Note: Competitors identified through analysis of 'school choices' on secondary school applications

Figure a40: Coastal 1 (Case 7) performance journey

Performance	04-05	05-06	06-07	07-08	08-09	09-10	10-11	11-12	12-13	13-14
OfSTED Inspection (1-4)										
Achievement of pupils	3	-	3	3	4	-	3	4	3	2
Teaching quality	3	-	3	2	2	-	2	2	2	2
Behaviour and safety	3	-	3	2	2	-	3	3	3	2
Leadership and management	3	-	4	3	2	-		3	2	1
Overall	3	-	4	3	4	-	3	4	3	2
Exam results										
Secondary (% 5+ C or above)	21	22	24	25	18	25	29	24	36	42
Secondary (% 5+ B or above)	0	0	0	0	0	0	0	0	0	1
Secondary (% 5+ A or above)	0	0	0	0	0	0	0	0	0	0
Revenue (£000)										
Teaching	6,634	6,667	6,685	8,889	8,396	8,301	5,630	5,630	4,792	4,278
Non-teaching	0	0	0	0	25	94	136	434	853	994
Total	6,634	6,667	6,685	8,889	8,421	8,395	5,766	6,064	5,645	5,272
Costs (£000)										
Teaching	3,699	3,813	3,823	5,030	4,712	5,192	3,848	3,937	4,040	3,583
Teaching years 7-9	2,208	2,271	2,242	3,677	3,307	3,865	2,508	2,497	2,068	1,697
Teaching year 10	823	847	849	712	709	715	710	705	856	946
Teaching year 11	669	695	732	641	696	612	630	735	1,116	940
% of teaching costs by year 11	18	18	19	13	15	12	16	19	28	26
Non-teaching	811	873	824	1,412	1,679	1,718	1,731	614	609	601
Total	4,510	4,686	4,647	6,442	6,391	6,910	5,579	4,551	4,649	4,184
Operating profit (£000)	2,124	1,981	2,038	2,447	2,030	1,485	187	1,513	996	1,088
Secondary students per year										
Students	1,473	1,479	1,485	1,956	1,864	1,843	1,250	1,250	1,064	950
Available capacity	1,500	1,500	1,500	2,500	2,500	2,500	1,250	1,250	1,250	1250
Number of applications	300	301	299	307	420	420	417	389	376	351
Applications (% available capacity)	100	100	99	51	70	70	139	130	125	117
Available Spaces in Year 7	300	300	300	600	600	600	300	300	300	300
% of applications outside 1 mile	0	0	0	0	0	0	0	0	0	3
% total capacity filled	98	98	99	78	74	73	100	100	85	76
Rejected applications within 1 mile	0	0	0	0	0	0	16	5	36	47
Rejected applications outside 1m	0	0	0	0	0	0	0	0	0	0
Competitiveness										
Students living within 1 mile	1,473	1,479	1,485	1,956	1,864	1,843	1,250	1,250	1,064	935
Students living outside 1 mile	0	0	0	0	0	0	0	0	0	15
% students outside 1 mile	0	0	0	0	0	0	0	0	0	2
Teaching quality (% lessons)										
Outstanding	19	20	21	40	42	43	43	44	47	51
Good	35	33	32	39	41	43	44	43	46	48
Requires Improvement	38	40	41	16	13	11	9	9	5	1
Inadequate	8	7	6	5	4	3	4	4	2	0
Student quality										
Number of incidents	978	991	1,003	1,196	1,534	1,684	1,536	1,423	1,212	1,023
Student attendance (% classes)	89	90	89	88	89	90	90	89	95	96
Fixed term exclusions	13	15	75	86	97	123	63	53	46	36
Permanent exclusions	0	0	2	3	1	5	8	11	4	2
Teacher quality										
Number	132	130	130	130	116	131	89	89	76	63

Number on capability	2	1	1	3	7	0	8	8	9	4
With no sickness	91	90	86	128	109	126	63	61	74	62
On long term sick (>20 days)	2	1	2	10	12	11	3	6	1	-
Days lost	486	491	412	642	674	781	563	421	241	198
Teachers recruited										
Year 7-9	0	0	0	0	5	0	2	3	5	0
Year 10	0	0	1	0	2	0	1	0	0	0
Year 11	0	0	0	1	0	0	3	5	2	1
Teachers lost through natural attrition										
Year 7-9	0	0	0	0	5	0	2	3	5	0
Year 10	0	0	1	0	2	0	1	0	0	0
Year 11	0	0	0	1	0	0	3	5	2	1
Teachers managed out by capability										
Year 7-9	0	0	0	0	5	0	2	3	5	0
Year 10	0	0	1	0	2	0	1	0	0	0
Year 11	0	0	0	1	0	0	3	5	2	1
Support staff quality										
Number	133	133	135	135	114	113	86	87	46	46
Recruited	1	1	2	0	0	0	0	10	0	5
Lost through natural attrition	0	1	0	0	21	1	27	9	28	5
Managed out by capability	0	0	0	0	0	0	0	0	13	0
With no sickness	61	61	74	97	91	87	74	61	43	44
On long term sick (>20 days)	8	9	14	15	23	22	19	11	1	1
Days lost	637	634	634	691	684	852	421	417	119	95

Note: Originally two schools that merged in 07-08 and continued to operate across 2 sites until 2010
Note: Figures are for the end of the academic year shown

Figure a41: Coastal 1 (Case 7) teaching resource allocation

Performance	04-05	05-06	06-07	07-08	08-09	09-10	10-11	11-12	12-13	13-14
Students per year										
Secondary (Year 7 to 9)	409	412	374	1,260	1,260	1,251	770	771	675	660
Secondary (Year 10)	398	420	412	405	315	329	244	245	211	189
Secondary (Year 11)	385	400	420	291	298	263	236	234	178	101
Total	1,192	1,232	1,206	1,956	1,864	1,843	1,250	1,250	1,064	950
Teachers per year										
Secondary (Year 7 to 9)	47	46	44	84	84	89	51	48	42	39
Secondary (Year 10)	42	41	43	25	21	23	17	18	16	15
Secondary (Year 11)	43	43	43	20	21	18	18	21	18	12
Total	132	130	130	130	116	131	89	89	76	63
Students per teacher										
Secondary (Year 7 to 9)	9	9	9	14	14	14	15	16	16	17
Secondary (Year 10)	9	10	10	16	15	14	14	13	13	12
Secondary (Year 11)	9	9	10	15	14	14	13	11	10	9
Average	9	9	9	15	16	14	14	14	14	15
Average teacher salary (£000)										
Secondary (Year 7 to 9)	31	32	32	31	33	32	31	30	30	31
Secondary (Year 10)	30	31	31	32	32	33	33	34	41	42
Secondary (Year 11)	31	30	31	32	33	34	35	35	62	70
Total	31	32	32	31	32	32	32	33	40	41

Note: Figures are for the end of the academic year shown

Figure a42: Coastal 1 (Case 7) market served and needs

Market served and needs	04-05	05-06	06-07	07-08	08-09	09-10	10-11	11-12	12-13	13-14
Market served										
Students within 1 mile	-	-	-	1,956	1,864	1,843	1,250	1,250	1,064	935
Students outside 1 mile	-	-	-	-	-	-	-	-	-	15
% outside 1 mile	-	-	-	-	-	-	-	-	-	2
Key order-winner (% customers)										
Location	-	-	-	100	100	100	100	100	96	92
Academic product design	-	-	-	-	-	-	-	-	4	7
Speed of admissions process	-	-	-	-	-	-	-	-	-	-
Non Academic product design	-	-	-	-	-	-	-	-	-	1
Winning students within 1 mile										
Location	-	-	-	100	100	100	100	100	95	90
Academic product design	-	-	-	Q	Q	Q	Q	Q	5	5
Non Academic product design	-	-	-	Q	Q	Q	Q	Q	Q	5
Front Office Customer service	-	-	-	Q	Q	Q	Q	Q	Q	Q
Customer relationship	-	-	-	Q	Q	Q	Q	Q	Q	Q
Speed of admissions process	-	-	-	Q	Q	Q	Q	Q	Q	Q
Retaining customers within 1 mile										
Location	-	-	-	100	100	100	100	100	100	95
Academic product design	-	-	-	Q	Q	Q	Q	Q	Q	5
Non Academic product design	-	-	-	Q	Q	Q	Q	Q	Q	Q
Front Office Customer service	-	-	-	Q	Q	Q	Q	Q	Q	Q
Customer relationship	-	-	-	Q	Q	Q	Q	Q	Q	Q
Speed of admissions process	-	-	-	Q	Q	Q	Q	Q	Q	Q
Winning students outside 1 mile										
Location	-	-	-	-	-	-	-	-	Q	Q
Academic product design	-	-	-	-	-	-	-	-	95	90
Non Academic product design	-	-	-	-	-	-	-	-	2.5	5
Front Office Customer service	-	-	-	-	-	-	-	-	2.5	5
Customer relationship	-	-	-	-	-	-	-	-	Q	Q
Speed of admissions process	-	-	-	-	-	-	-	-	Q	Q
Retaining customers outside 1 mile										
Location	-	-	-	-	-	-	-	-	-	Q
Academic product design	-	-	-	-	-	-	-	-	-	95
Non Academic product design	-	-	-	-	-	-	-	-	-	5
Front Office Customer service	-	-	-	-	-	-	-	-	-	Q
Customer relationship	-	-	-	-	-	-	-	-	-	Q
Speed of admissions process	-	-	-	-	-	-	-	-	-	Q

Definitions:

Location	Location of academy site
Academic product design	The academic curriculum design and delivery
Non Academic product design	The non academic curriculum (including sport) design and delivery
Front Office Customer service	Customer service provided by front office employees
Customer relationship	Relationship between customers and front office employees
Speed of admissions process	Speed that admissions are processed and offers made to customers

Appendix 8: Case data for Coastal 2 (Case 8)

Figure a43: Coastal 2 (Case 8) competitor analysis

Performance	04-05	05-06	06-07	07-08	08-09	09-10	10-11	11-12	12-13	13-14
OfSTED Inspection (1-4)										
Coastal 2 (Case 8)	3	-	-	3	4	-	3	3	4	2
Academy 31	1	-	-	1	-	-	1	-	-	1
Academy 32	4	3	-	3	-	3	-	-	3	3
Academy 33	3	-	-	4	-	-	3	3	-	3
Academy 34	3	-	-	3	-	3	-	-	3	-
Academy 35	3	-	3	-	4	-	3	-	3	-
Exam results (% 5+ C or above)										
Coastal 2 (Case 8)	33	31	30	29	24	28	32	40	47	50
Academy 31	80	82	78	79	80	81	83	92	81	77
Academy 32	30	31	29	28	31	37	44	46	37	38
Academy 33	33	35	39	40	35	33	31	34	46	39
Academy 34	36	38	37	33	32	34	36	48	59	58
Academy 35	38	39	37	30	28	45	53	60	55	58
Progress measure (Maths)										
Coastal 2 (Case 8)	-	-	-	-	-	31	36	43	57	64
Academy 31	-	-	-	-	-	90	89	88	88	82
Academy 32	-	-	-	-	-	46	50	59	67	63
Academy 33	-	-	-	-	-	33	28	48	43	49
Academy 34	-	-	-	-	-	57	60	54	64	76
Academy 35	-	-	-	-	-	54	60	59	56	67
Progress measure (English)										
Coastal 2 (Case 8)	-	-	-	-	-	38	46	53	66	69
Academy 31	-	-	-	-	-	91	94	84	75	85
Academy 32	-	-	-	-	-	44	46	46	43	37
Academy 33	-	-	-	-	-	40	45	51	60	60
Academy 34	-	-	-	-	-	57	60	56	66	77
Academy 35	-	-	-	-	-	68	69	71	48	79
Revenue (£000)										
Coastal 2 (Case 8)	6,623	6,646	6,668	6,596	6,530	6,315	6,094	5,895	5,338	4,934
Academy 31	9,898	9,925	10,144	9,954	10,141	10,132	10,224	10,280	10,77	10,944
Academy 32	5,939	5,939	5,939	6,533	6,533	5,957	5,903	5,825	5,256	5,209
Academy 33	4,903	4,913	4,849	4,814	4,730	4,794	4,828	4,467	4,462	4,461
Academy 34	4,097	4,112	4,161	4,217	4,242	4,232	4,572	4,916	5,011	5,471
Academy 35	4,589	4,555	4,521	4,555	4,458	4,357	4,347	4,352	4,357	4,357
Primary students										
Coastal 2 (Case 8)	0	0	0	0	0	0	0	0	0	0
Academy 31	0	0	0	0	0	0	0	0	0	0
Academy 32	0	0	0	0	0	0	0	0	0	0
Academy 33	0	0	0	0	0	0	0	0	0	0
Academy 34	0	0	0	0	0	0	0	0	0	0
Academy 35	0	0	0	0	0	0	0	0	0	0
Secondary students										
Coastal 2 (Case 8)	1201	1205	1209	1196	1184	1145	1105	1069	968	895
Academy 31	1940	1945	1988	1951	1989	1986	2004	2015	2112	2145
Academy 32	1000	1000	1000	1100	1100	1003	994	981	885	877
Academy 33	989	991	978	971	954	967	974	901	900	900

Performance	04-05	05-06	06-07	07-08	08-09	09-10	10-11	11-12	12-13	13-14
Academy 34	821	824	835	845	850	848	916	985	1004	1097
Academy 35	948	941	934	941	921	900	898	899	900	900
Total	6899	6906	6944	7004	6998	6849	6891	6850	6769	6814
Market share (% students)										
Coastal 2 (Case 8)	17	17	17	17	17	17	16	16	14	13
Academy 31	28	28	29	28	28	29	29	29	31	31
Academy 32	14	14	14	16	16	15	14	14	13	13
Academy 33	14	14	14	14	14	14	14	13	13	13
Academy 34	12	12	12	12	12	12	13	14	15	16
Academy 35	14	14	13	13	13	13	13	13	13	13
Market share (% competitors)	100	100	100	100	100	100	96	96	82	75
Sixth form students										
Coastal 2 (Case 8)	0	0	0	0	0	0	0	0	0	0
Academy 31	0	0	0	0	0	0	0	0	0	0
Academy 32	0	0	0	0	0	0	0	0	0	0
Academy 33	0	0	0	0	0	0	0	0	0	0
Academy 34	0	0	0	0	0	0	0	0	0	0
Academy 35	0	0	0	0	0	0	0	0	0	0
Primary student capacity (number)										
Coastal 2 (Case 8)	0	0	0	0	0	0	0	0	0	0
Academy 31	0	0	0	0	0	0	0	0	0	0
Academy 32	0	0	0	0	0	0	0	0	0	0
Academy 33	0	0	0	0	0	0	0	0	0	0
Academy 34	0	0	0	0	0	0	0	0	0	0
Academy 35	0	0	0	0	0	0	0	0	0	0
Secondary student capacity (number)										
Coastal 2 (Case 8)	1200	1200	1200	1200	1200	1200	950	950	950	950
Academy 31	2300	2300	2300	2300	2300	2300	2300	2355	2355	2355
Academy 32	1000	1000	1000	1100	1100	1100	1100	1100	1100	1100
Academy 33	1000	1000	1000	1000	1000	1000	1000	900	900	900
Academy 34	800	800	800	850	850	900	900	1000	1000	1100
Academy 35	950	950	950	950	900	900	900	900	900	900
Sixth form student capacity (number)										
Coastal 2 (Case 8)	0	0	0	0	0	0	0	0	0	0
Academy 31	0	0	0	0	0	0	0	0	0	0
Academy 32	0	0	0	0	0	0	0	0	0	0
Academy 33	0	0	0	0	0	0	0	0	0	0
Academy 34	0	0	0	0	0	0	0	0	0	0
Academy 35	0	0	0	0	0	0	0	0	0	0
Primary teacher capacity (number)										
Coastal 2 (Case 8)	0	0	0	0	0	0	0	0	0	0
Academy 31	0	0	0	0	0	0	0	0	0	0
Academy 32	0	0	0	0	0	0	0	0	0	0
Academy 33	0	0	0	0	0	0	0	0	0	0
Academy 34	0	0	0	0	0	0	0	0	0	0
Academy 35	0	0	0	0	0	0	0	0	0	0
Secondary teacher capacity (number)										
Coastal 2 (Case 8)	62	62	62	62	61	59	57	55	50	46
Academy 31	100	100	102	101	103	102	103	104	109	111
Academy 32	52	52	52	57	57	52	51	51	46	45

Performance	04-05	05-06	06-07	07-08	08-09	09-10	10-11	11-12	12-13	13-14
Academy 33	51	51	50	50	50	50	50	49	46	46
Academy 34	42	42	43	44	44	44	47	51	52	57
Academy 35	49	49	48	49	47	46	46	46	46	46
Sixth form teacher capacity (number)										
Coastal 2 (Case 8)	0	0	0	0	0	0	0	0	0	0
Academy 31	0	0	0	0	0	0	0	0	0	0
Academy 32	0	0	0	0	0	0	0	0	0	0
Academy 33	0	0	0	0	0	0	0	0	0	0
Academy 34	0	0	0	0	0	0	0	0	0	0
Academy 35	0	0	0	0	0	0	0	0	0	0

Note: None of the schools have primary or sixth form students
Note: Progress measures were not introduced into the UK education sector until 2008-09

Figure a44: Coastal 2 (Case 8) secondary student ethnicity competitor analysis

Student ethnicity (% total)	04-05	05-06	06-07	07-08	08-09	09-10	10-11	11-12	12-13	13-14
Coastal 2 (Case 8)										
White	99.0	98.0	98.0	98.0	97.0	96.0	95.0	94.0	93.0	92.0
Mixed	1.0	1.0	1.0	1.0	1.0	1.0	2.0	1.0	2.0	2.0
Asian or Asian British	0.0	0.0	1.0	1.0	1.0	1.0	1.0	1.0	2.0	3.0
Black or Black British	0.0	0.0	0.0	0.0	0.0	2.0	2.0	3.0	2.0	2.0
Chinese or other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Not stated	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	1.0	1.0
Academy 31										
White	90.0	89.0	88.0	88.0	89.0	90.0	91.0	93.0	92.0	93.0
Mixed	3.0	3.0	3.0	4.0	4.0	3.0	3.0	3.0	2.0	2.0
Asian or Asian British	2.0	3.0	4.0	4.0	4.0	3.0	3.0	3.0	2.0	1.0
Black or Black British	1.0	2.0	2.0	2.0	2.0	2.0	2.0	3.0	3.0	3.0
Chinese or other	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0
Not stated	3.0	2.0	2.0	2.0	2.0	1.0	1.0	1.0	1.0	1.0
Academy 32										
White	97.0	97.0	97.0	97.0	96.0	96.0	96.0	95.0	94.0	93.0
Mixed	1.0	1.0	1.0	1.0	1.0	1.0	2.0	1.0	2.0	2.0
Asian or Asian British	1.0	1.0	1.0	2.0	2.0	1.0	0.0	0.0	1.0	2.0
Black or Black British	0.0	0.0	0.0	0.0	0.0	2.0	2.0	3.0	2.0	2.0
Chinese or other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Not stated	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	1.0	1.0
Academy 33										
White	97.0	97.0	97.0	97.0	97.0	98.0	99.0	99.0	99.0	99.0
Mixed	1.0	1.0	1.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0
Asian or Asian British	1.0	1.0	1.0	1.0	1.0	1.0	0.0	0.0	0.0	0.0
Black or Black British	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Chinese or other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Not stated	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Academy 34										
White	98.0	97.0	97.0	97.0	97.0	98.0	99.0	99.0	99.0	99.0
Mixed	0.0	1.0	1.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0
Asian or Asian British	1.0	1.0	1.0	1.0	1.0	1.0	0.0	0.0	0.0	0.0
Black or Black British	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Chinese or other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Not stated	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Academy 35										
White	97.0	97.0	97.0	97.0	97.0	98.0	99.0	99.0	99.0	99.0
Mixed	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Asian or Asian British	1.0	1.0	1.0	1.0	1.0	1.0	0.0	0.0	0.0	0.0
Black or Black British	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Chinese or other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Not stated	1.0	1.0	1.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0

Note: Competitors identified through analysis of 'school choices' on secondary school applications

Figure a45: Coastal 2 (Case 8) year 11 student leavers competitor analysis

Destination (% Year 11 leavers)	04-05	05-06	06-07	07-08	08-09	09-10	10-11	11-12	12-13	13-14
Coastal 2 (Case 8)										
Stayed at school (sixth form)	0	0	0	0	0	0	0	0	12	26
Sixth form college (other provider)	3	4	5	4	8	17	22	29	30	31
Further education college	30	27	29	32	37	49	52	54	53	42
Apprenticeship	14	16	17	16	11	9	6	4	2	1
Left education	47	46	43	43	39	21	15	9	1	0
Unknown	6	7	6	5	5	4	5	4	2	0
Academy 31										
Stayed at school (sixth form)	35	33	32	31	30	30	29	28	26	24
Sixth form college (other provider)	23	22	20	20	22	21	18	19	21	20
Further education college	34	34	34	34	34	34	34	34	34	34
Apprenticeship	7	7	12	12	10	9	13	12	11	15
Left education	1	3	2	2	4	5	6	6	7	7
Unknown	0	1	0	1	0	1	0	1	1	0
Academy 32										
Stayed at school (sixth form)	0	0	0	0	0	0	0	0	9	14
Sixth form college (other provider)	28	31	34	36	26	28	35	27	36	43
Further education college	18	20	23	21	30	33	36	41	48	42
Apprenticeship	40	41	38	34	29	22	15	13	0	0
Left education	5	4	5	9	11	13	12	14	7	1
Unknown	9	4	0	0	4	4	2	5	0	0
Academy 33										
Stayed at school (sixth form)	0	1	0	0	1	2	3	1	0	2
Sixth form college (other provider)	20	22	23	24	25	25	24	24	23	22
Further education college	56	49	44	43	42	41	40	44	45	48
Apprenticeship	2	7	13	13	13	14	16	16	17	13
Left education	13	12	12	13	12	12	12	11	11	10
Unknown	9	9	8	7	7	6	5	4	4	5
Academy 34										
Stayed at school (sixth form)	37	37	38	38	39	39	40	39	40	41
Sixth form college (other provider)	15	17	15	16	14	15	12	12	13	11
Further education college	30	29	29	28	28	27	28	30	28	29
Apprenticeship	3	3	3	3	3	3	3	3	3	2
Left education	11	10	10	10	10	10	9	9	8	8
Unknown	4	4	5	5	6	6	8	7	8	9
Academy 35										
Stayed at school (sixth form)	0	0	0	0	0	0	10	5	8	7
Sixth form college (other provider)	44	44	43	43	45	48	31	29	26	27
Further education college	29	31	32	33	33	32	41	53	53	53
Apprenticeship	12	11	10	9	8	8	7	5	5	5
Left education	9	8	8	7	6	5	5	4	4	4
Unknown	6	6	7	8	8	7	6	4	4	4

Note: Competitors identified through analysis of 'school choices' on secondary school applications

Figure a46: Coastal 2 (Case 8) performance journey

Performance	04-05	05-06	06-07	07-08	08-09	09-10	10-11	11-12	12-13	13-14
OfSTED Inspection (1-4)										
Achievement of pupils	3	-	-	3	3	-	3	3	3	2
Teaching quality	3	-	-	3	3	-	3	3	3	2
Behaviour and safety	2	-	-	2	4	-	3	3	4	2
Leadership and management	3	-	-	3	4	-	2	2	3	1
Overall	3	-	-	3	4	-	3	3	4	2
Exam results										
Secondary (% 5+ C or above)	33	31	30	29	24	28	32	40	47	50
Secondary (% 5+ B or above)	0	0	0	0	0	0	0	0	1	3
Secondary (% 5+ A or above)	0	0	0	0	0	0	0	0	0	1
Revenue (£000)										
Teaching	6,623	6,646	6,668	6,596	6,530	6,223	5,955	5,729	5,156	4,730
Non-teaching	0	0	0	0	0	0,092	0,139	0,166	0,182	0,204
Total	6,623	6,646	6,668	6,596	6,530	6,315	6,094	5,895	5,338	4,934
Costs (£000)										
Teaching	2,863	2,893	2,978	2,833	2,694	2,718	2,720	2,615	2,436	2,409
Teaching years 7-9	1,925	1,820	1,908	1,764	1,665	1,406	1,406	1,406	1,248	1,248
Teaching year 10	578	578	560	525	504	432	418	312	287	258
Teaching year 11	360	495	510	544	525	880	896	897	901	903
Redundancy Costs	0	0	0	0	0	707	711	710	996	1,013
% of teaching costs by year 11	13	17	17	19	19	32	33	34	35	37
Non-teaching	2,639	2,533	2,694	2,834	3,080	2,918	2,984	2,991	2,984	2,976
Total	5,502	5,426	5,672	5,667	5,774	6,343	6,415	6,316	6,416	6,398
Operating profit (£000)	1,121	1,220	996	929	756	(28)	(321)	(421)	(1,078)	(1,464)
Secondary students Per year										
Secondary	1201	1205	1209	1196	1184	1145	1105	1069	968	895
Total available capacity	1200	1200	1200	1200	1200	1200	950	950	950	950
Number of applications	238	239	241	239	235	229	227	221	218	215
Applications (% available capacity)	99	100	100	100	98	95	119	116	115	113
Available Spaces in Year 7	240	240	240	240	240	240	190	190	190	190
% of applications outside 1 mile	0	0	0	0	0	0	0	0	1	14
% total capacity filled	100	100	101	100	99	95	116	113	102	94
Rejected applications within 1 mile	0	0	1	0	1	6	9	15	25	37
Rejected applications outside 1 m	0	0	0	0	0	0	0	0	0	0
Competitiveness										
Students living within 1 mile	1201	1205	1209	1196	1184	1145	1105	1069	967	881
Students living outside 1 mile	0	0	0	0	0	0	0	0	1	14
% students outside 1 mile	0	0	0	0	0	0	0	0	0.1	1.5
Teaching quality (% lessons)										
Outstanding	16	16	17	17	19	20	26	31	33	43
Good	35	33	32	39	40	43	44	47	50	55
Requires Improvement	41	44	45	39	37	34	26	18	15	2
Inadequate	8	7	6	5	4	3	4	4	2	0
Student quality										
Number of incidents	931	925	915	914	925	1053	975	934	764	754
Student attendance (% classes)	89	90	91	92	92	92	92	93	93	94
Fixed term exclusions	56	59	54	63	68	121	119	113	98	67

Permanent exclusions	0	0	1	3	2	5	6	4	2	0

Teacher quality

Number	92	93	86	80	74	60	55	53	46	43
Number on capability	0	0	0	0	0	5	5	1	3	1
With no sickness	57	65	66	61	57	45	47	48	44	41
On long term sick (>20 days)	1	1	1	2	1	6	4	2	1	0
Days lost	378	384	371	427	416	648	538	318	292	176

Teachers recruited

Year 7-9	0	1	0	0	0	0	1	0	1	0
Year 10	0	0	0	0	0	1	1	0	1	0
Year 11	0	0	0	0	0	4	3	1	1	1

Teachers managed out by capability

Year 7-9	0	0	0	0	0	0	1	0	1	0
Year 10	0	0	0	0	0	1	1	0	1	0
Year 11	0	0	0	0	0	4	3	1	1	1

Teachers lost through natural attrition

Year 7-9	0	1	5	5	6	10	5	1	5	1
Year 10	0	0	1	1	0	2	0	1	1	1
Year 11	0	0	1	0	0	2	0	0	1	1

Support staff

Number	95	95	95	95	95	78	65	57	48	40
Number recruited	0	0	0	0	0	0	0	3	4	8
Lost through natural attrition	0	0	0	0	0	1	1	0	0	0
Managed out by capability	0	0	0	0	0	16	12	8	9	8
Number with no sickness	18	12	22	25	18	9	25	38	38	39
Number on long term sick (>20 days)	12	13	11	10	11	25	22	21	6	2
Days lost	457	456	536	593	614	785	859	758	247	195

Note: Figures are for the end of the academic year shown

Figure a47: Coastal 2 (Case 8) teaching resource allocation

Performance	04-05	05-06	06-07	07-08	08-09	09-10	10-11	11-12	12-13	13-14
Students per year										
Secondary (Year 7 to 9)	721	729	739	731	723	718	730	785	698	662
Secondary (Year 10)	240	236	234	231	230	208	186	141	134	112
Secondary (Year 11)	240	240	236	234	231	219	189	143	136	121
Total	1201	1205	1209	1196	1184	1145	1105	1069	968	895
Teachers per year										
Secondary (Year 7 to 9)	55	52	53	49	45	38	37	37	32	32
Secondary (Year 10)	17	17	16	15	14	12	11	8	7	6
Secondary (Year 11)	15	15	15	16	15	16	14	11	10	10
Total	92	93	86	80	74	60	55	53	46	43
Students per teacher										
Secondary (Year 7 to 9)	13	14	14	15	16	19	20	21	22	21
Secondary (Year 10)	14	14	15	15	16	17	17	18	19	19
Secondary (Year 11)	16	16	16	15	15	14	14	13	13	12
Average	13	13	14	15	16	19	20	20	21	21
Average teacher salary (£000)										
Secondary (Year 7 to 9)	25	25	26	26	27	27	28	28	29	30
Secondary (Year 10)	24	24	25	25	26	26	28	29	31	33
Secondary (Year 11)	23	23	24	24	25	26	30	33	41	52
Total	24	24	25	25	26	26	28	30	33	35

Note: Figures are for the end of the academic year shown

Figure a48: Coastal 2 (Case 8) market served and needs

Market served and needs	04-05	05-06	06-07	07-08	08-09	09-10	10-11	11-12	12-13	13-14
Market served										
Students within 1 mile	1201	1205	1209	1196	1184	1145	1105	1069	967	881
Students outside 1 mile	0	0	0	0	0	0	0	0	1	14
% outside 1 mile	0	0	0	0	0	0	0	0	0.1	1.5
Key order-winner (% customers)										
Location	100	100	100	100	100	100	100	100	96	92
Academic product design	0	0	0	0	0	0	0	0	4	7
Speed of admissions process	0	0	0	0	0	0	0	0	0	0
Non Academic product design	0	0	0	0	0	0	0	0	0	1
Winning students within 1 mile										
Location	100	100	100	100	100	100	100	100	95	90
Academic product design	Q	Q	Q	Q	Q	Q	Q	Q	5	5
Non Academic product design	Q	Q	Q	Q	Q	Q	Q	Q	Q	5
Front Office Customer service	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Customer relationship	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Speed of admissions process	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Retaining customers within 1 mile										
Location	100	100	100	100	100	100	100	100	100	95
Academic product design	Q	Q	Q	Q	Q	Q	Q	Q	Q	5
Non Academic product design	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Front Office Customer service	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Customer relationship	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Speed of admissions process	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Winning students outside 1 mile										
Location	-	-	-	-	-	-	-	-	Q	Q
Academic product design	-	-	-	-	-	-	-	-	95	90
Non Academic product design	-	-	-	-	-	-	-	-	2	5
Front Office Customer service	-	-	-	-	-	-	-	-	3	5
Customer relationship	-	-	-	-	-	-	-	-	Q	Q
Speed of admissions process	-	-	-	-	-	-	-	-	Q	Q
Retaining customers outside 1 mile										
Location	-	-	-	-	-	-	-	-	-	Q
Academic product design	-	-	-	-	-	-	-	-	-	95
Non Academic product design	-	-	-	-	-	-	-	-	-	5
Front Office Customer service	-	-	-	-	-	-	-	-	-	Q
Customer relationship	-	-	-	-	-	-	-	-	-	Q
Speed of admissions process	-	-	-	-	-	-	-	-	-	Q

Definitions:

Location	Location of academy site
Academic product design	The academic curriculum design and delivery
Non Academic product design	The non academic curriculum (including sport) design and delivery
Front Office Customer service	Customer service provided by front office employees
Customer relationship	Relationship between customers and front office employees
Speed of admissions process	Speed that admissions are processed and offers made to customers