025-0835

It ain't what you do, it's the way that you do it:

the impact of strategic fit on business performance in service organisations

Alex Hill

Kingston Business School, Kingston University,

Kingston upon Thames, KT1 1LQ

a.hill@kingston.ac.uk +44 7957 618094

Richard Cuthbertson

Saïd Business School, Oxford University, Oxford, OX1 1HP

Richard.Cuthbertson@sbs.ox.ac.uk +44 1865 288650

Steve Brown

School of Business and Economics, University of Exeter, Exeter, UK

steve.brown@exter.ac.uk +44 1392 263447

POMS 23rd Annual Conference

Chicago, Illinois, U.S.A.

April 20 to April 23, 2011

Abstract

Empirical research was conducted in twelve service organisations to understand the impact of internal strategic fit on business performance. The findings suggest that the approach used to create fit has a more significant than the level of fit it creates. A review of the high performing companies showed they used ‘strategic frameworks’ in stable price-sensitive markets, ‘service/product-based teams’ in stable design-led markets, ‘flexible resources’ in unstable price-sensitive markets and ‘customer-based teams’ in unstable design-led markets.

Keywords: Strategic fit; Operations strategy; Service operations; Case/field study

1. Introduction

The importance of creating fit has been at the core of management studies for over thirty years (da Silveira and Sousa, 2010) and is an important building block in strategy development (Venkatraman and Camillus, 1984; Drazin and de Ven, 1985). Strategic fit within an operation is defined as the consistency between its competitive priorities, strategy and delivery system (Hayes and Wheelwright, 1984; Kotha and Orne, 1989; Anderson et al., 1989; Leong et al., 1990; Hill and Hill, 2011). The process of achieving strategic fit concerns identifying, prioritising, communicating, achieving commitment to and implementing initiatives on two dimensions (Miller, 1981; Stephanovich and Mueller, 2002):

- **External fit** - The actions and interests of all employees are focused on the key company goals (Robinson and Stern, 1998) and thus its resources, capabilities and strategies match the demand of the external environment in which it competes (Stephanovich and Mueller, 2002)
- **Internal fit** - Employees from different organisational levels and functions agree on the relative importance of the competitive criteria that the firm must support (Boyer and McDermott, 1999) and there is fit among variables of structure, between structure and process, and among variables of process (Miller, 1981)

The need for fit is implicit in almost every operations strategy study even though its has received little explicit examination (Boyer et al., 2005). The research to date has predominantly looked at manufacturing operations (Machuca et al., 2007) with the limited service operations research looking at the external fit-performance relationship (Nayyar, 1992; Smith and Reece, 1999) and how to measure, manage and maintain internal fit (Hill and Brown, 2007). Equally, much of the research to date misses out on the contextual richness of the practice-performance relationships within firms (Menda and Ditts, 1997; Meredith, 1998; Boyer et al., 2005; Sousa and Voss, 2008).

This research starts to address some of these gaps. It investigates the impact of the 'level of fit' and 'approach to creating fit' on business performance. The findings suggest that the approach used to create fit has a more significant on business performance than the level of fit it creates. A review of the high performing companies showed they used 'strategic frameworks' in stable price-sensitive markets, 'service/product-based teams' in stable design-led markets, 'flexible resources' in unstable price-sensitive markets and 'customer-based teams' in unstable design-led markets. These findings have significant implications for practitioners. They help them identify where to improve the level of fit within their business given their performance objectives, and select the appropriate approach to creating fit given the key order-winner and stability of their market.

The paper starts with a discussion of the current research on the impact of fit on business performance before describing the approach used to select organisations, determine the approach they use to create fit and measure the level of fit and business performance that results from this. The research findings are then presented and the discussion leads to the development of the 'fitness approach' framework showing how organisations should create fit in markets with different key order-winners and levels of stability. Finally, the paper concludes with a discussion of the research limitations and future research opportunities.

2. Assessing the impact of fit on business performance

Table 2 summarises the key findings from the research to date to understand the impact of fit on business performance. This shows that the majority of research to date has looked at manufacturing firms where researchers found that external fit positively impacted growth (Anand and Ward, 2004; da Silveira, 2005) and operational performance (Youndt et al., 1996; Lindman et al., 2001; Brown et al., 2007). However, not all investigations have found significant relationships. For example, da Silveira (2005) found that external fit was not significantly related to profitability and da Silveira and Sousa (2010) found internal fit not significantly related to operational performance. Both sets of authors suggested that further research was required to better understand their findings and stressed that they had found insignificant relationships, not significant negative ones.

Table 1
Key findings from previous research into the fit-performance relationship (1992 - 2011)

Type of operation and dimension of fit researched	Research conducted: Topic	Author (date)	Key findings
Service			
External fit	Type of fit	Nayyar (1992)	Fit with customer segments is positively related to return on equity Fit with either internal capabilities or geographic regions is negatively related to return on equity
	Fit with business strategy	Smith and Reece (1999)	External fit is positively related to sales and return on sales The fit within the operational elements of a strategy is more important than the choice of strategy
Manufacturing			
External fit	Fit with human resource practices	Youndt et al. (1996)	Fit between human resource system and manufacturing practices is positively related to operational performance (product quality, employee morale, on-time delivery, inventory management, employee productivity, equipment utilisation, production lead-time and scrap minimisation)
		de Menezes et al. (2010)	Fit between human resource management and manufacturing practices is positively related to operational performance (productivity)
	Fit with business strategy	Lindman et al. (2001)	External fit is positively related to operational performance (cost, flexibility, quality and dependability)
		Anand and Ward (2004)	External fit is positively related to market share and sales growth
		da Silveira (2005)	External fit is positively related to market share External fit is not significantly related to return on sales or return on investment
		Brown et al. (2007)	External fit is positively related to operational performance (quality conformance, inventory and innovation) Manufacturing involvement in business strategy formulation is positively related to external fit
Internal fit	Fit within operation	da Silveira and Sousa (2010)	Internal fit is not significantly related to operational performance (quality, flexibility, and dependability)

Within service organisations, Nayyar (1992) studied the external fit with customer segments is positively related to profitability (return on equity), but external fit with internal capabilities or geographic regions is negatively related to profitability (return on equity). Whereas Smith and Reece (1999) found that external fit with business strategy was positively related to growth (sales)

and profitability (return on sales) and that the level of fit within a strategy was more important than the type of strategy chosen by an organisation. This research aims to build on these findings by examining the impact of internal fit on business performance within service organisations. It also starts to answer the call for further research to understanding the impact of fit on performance (da Silveira, 2005; da Silveira and Sousa, 2010).

2.1 Business performance

The adoption of any particular set of indicators to measure business performance embroils the researcher in a quagmire of quantification and dimensionality problems as they try to choose indicators that are valid and meets universal acceptance (Bourgeois, 1980). To overcome these issues, several authors (for example Kaplan and Norton, 1992; Nilsson and Kald, 2002) suggest using a combination of financial and non-financial indicators. Financial indicators include sales growth (Kim and Lee, 1993), return on sales (Papke-Shields et al., 2001), return on equity (Nayyar, 1992), return on investment (da Silveira, 2005) and non-financial indicators include market share (Anderson and Sohal, 1999), overall competitiveness (Lau, 2002), productivity (Ross, 2002) and growth in market share (Tracey et al., 1999).

This study uses measures of performance adopted from Ramanujam and Venkatraman (1987), Kotha and Swamidass (2000) and Papke-Shields and Malhotra (2001). Two items measure profitability (return on sales and return on investment) and one item measures growth (domestic market share). All three measures have been used in previous operations strategy research (for example Boyer et al., 1997; Swamidass and Newell, 1987; Vickery et al., 1993; Ward et al., 1994) where they had a high level of internal consistency.

2.2 Level of fit

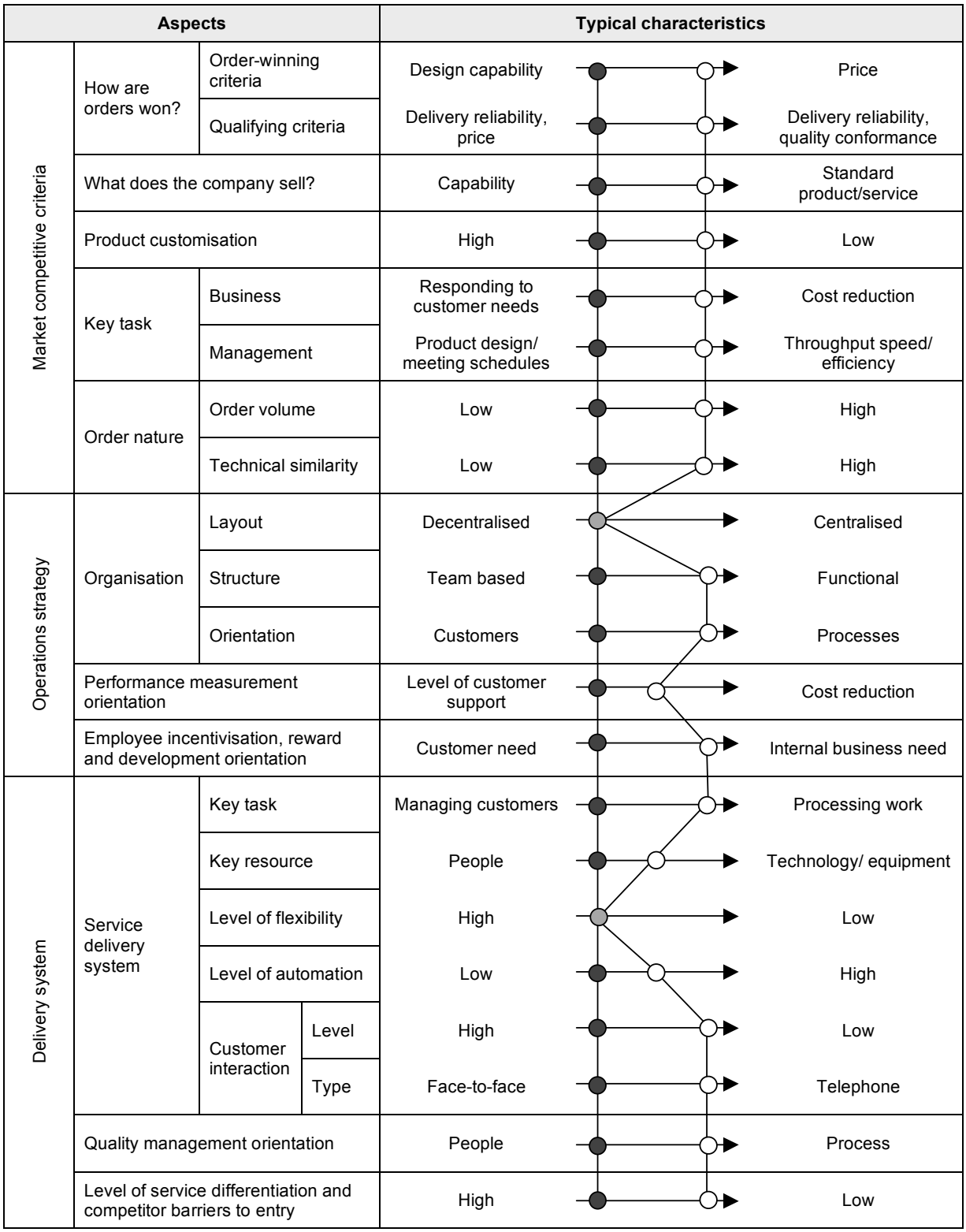
Empirically measuring 'fit' can be a challenging and elusive task even though it is core to most operations strategy research (da Silveira, 2005; Sousa and Voss, 2008; da Silveira and Sousa, 2010). A number of frameworks such as Chase and Aquilano's (1981) 'strategic audit', Shostack's (1984) 'service positioning strategy' and Heskett's (1986) 'strategic service vision' can be used to guide strategic decisions within service organisations. However, this research adopts the Hill and Brown (2007) strategic profiling framework, which is based on Heskett's (1986) 'strategic service vision', because it is the only one that has been specifically developed for assessing the level of internal fit within service operations. It is also consistent with other approaches used to investigate internal fit within manufacturing operations (such as Mills et al., 1998; Hill and Hill, 2009) and it is well suited to the measurement and analysis procedures necessary to complete empirical research. The Hill and Brown (2007) framework represents a configurational view of fit by suggesting that a number of variables within an operation should match and reinforce each other (Miller, 1996; Siggelkow, 2002). It measures the level of fit within an organisation by determining what a business needs to do and assessing how well it operates and delivers its services and products to its customers:

- **What the business needs to do (market competitive criteria)** – what are the important competitive criteria that have to be support within its markets and how do they vary in importance for the different markets it serves (Menda and Ditts, 1997; Boyer and McDermott, 1999; Hill and Brown, 2007; Hill and Hill, 2009).
- **How the business operates (operations strategy)** – are the different functions within the business aligned in terms of their organisation, investment, performance measurement and employee incentivisation, reward and development (Heskett, 1986; Hill and Brown, 2007).

- **How the business delivers its services and products (delivery systems)** – are the different steps in the delivery system, provided by different functions, aligned with each other (Heskett, 1986; Hill and Brown, 2007).

Figure 1 shows the twenty-one variables that need to be reviewed to determine the level of fit within and between an organisation's market competitive criteria, operations strategy and delivery system. It shows a profile for both a 'high-fit' and a 'low-fit' organisation, where a straight line shows that all aspects are aligned with each other and indicates a high level of fit. However, this straight line can be at any point in the framework. For example, a company competing in design-led, low volume markets would want their profile to be towards the right-hand side of the continuum, whereas companies competing in price-sensitive, high volume markets would want the points in their profile to be towards the left-hand side of the continuum. As such, the level of fit can measured as the Euclidean distance between the actual and ideal position on the profile (da Silveira, 2005).

Figure 1
Hill and Brown (2007) strategic profiling framework showing a company with high strategic fit and a company with low strategic fit



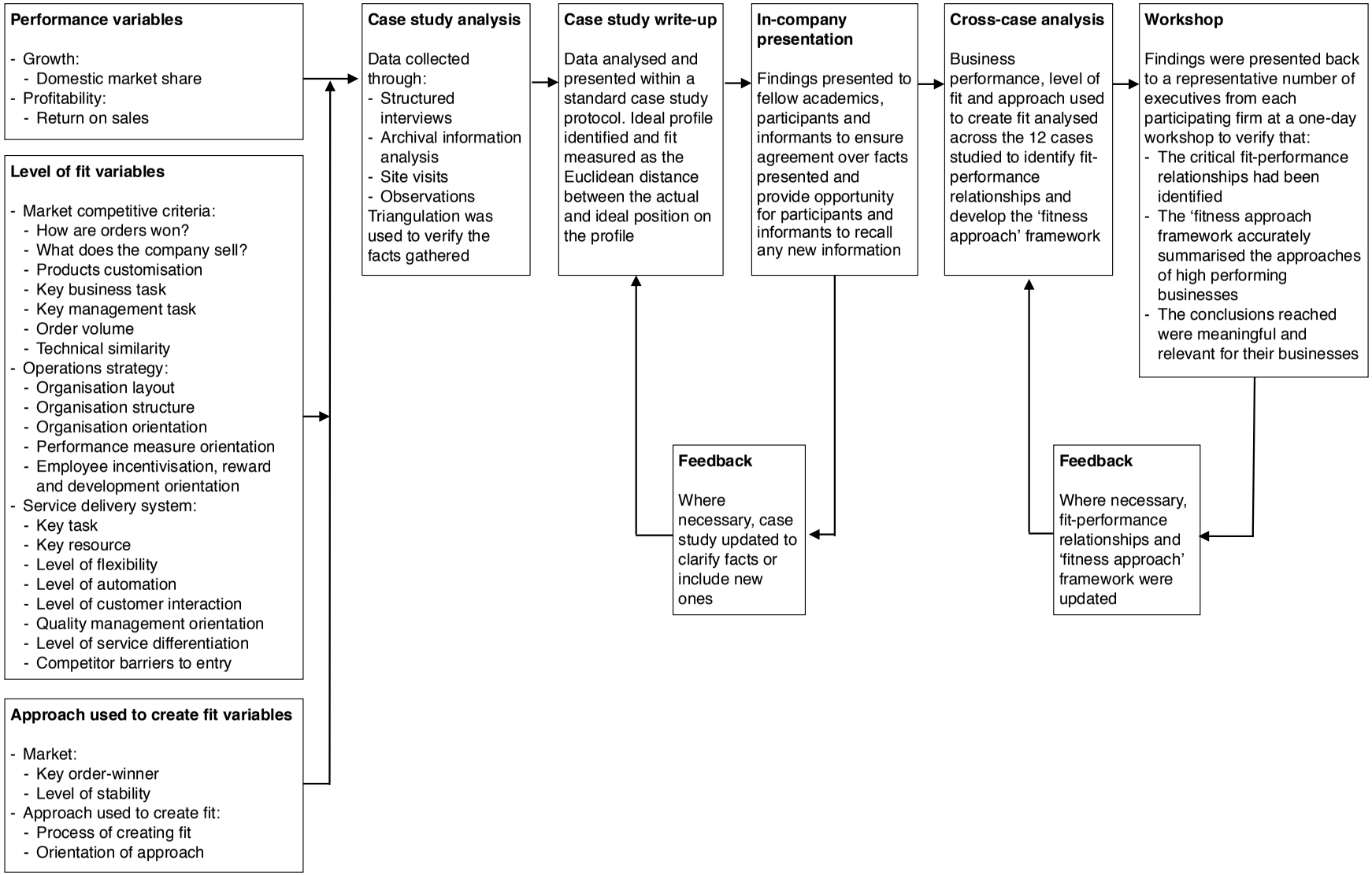
2.3 Approach used to create fit

The majority of operations strategy research has focused on the content of the strategy used rather than the process used to create it (Anderson et al., 1989, 1991; Adam and Swamidass, 1989; Leong et al., 1990; Minor et al., 1994; Dangayach and Deshmukh, 2001; Boyer et al., 2005). However, the research that has been conducted suggests firms should select either a planned or emergent process depending on their level of market stability (such as Mintzberg and Waters, 1985; Platts et al., 1998; Barnes, 2002; Harrington et al., 2004; Minarro-Viseras et al., 2005) and orientate fit around their resources or markets depending on how they wish to compete (such as Hayes and Schmenner, 1978; Ferdows and Meyer, 1990; Barney, 1991; Berry et al., 1991; Grant, 1991; Stalk et al., 1992; Draaijer, 1993; da Silveira, 2005; Ketchen et al., 2007; Santala and Parvinen, 2007; Hill, 2008; Zhou et al., 2008; Hill and Hill, 2011). This study therefore assesses the approach taken to create fit within an organisation by comparing the process of creating fit with its market stability and the orientation of approach used to create fit with the key market order-winner it has to support.

3. Case study research methodology

A case study approach was adopted as it enables the impact of fit on performance to be studied in its 'natural' setting. This allows why, what, and how research questions to be answered with a relatively full understanding of the nature and complexity of the phenomenon being studied (Benbasat et al., 1987; Eisenhardt, 1989; Ellram, 1996; Meredith, 1998; Voss et al., 2002; Yin, 1994) and richer insights and explanations to be developed (Weick, 2007; Sousa and Voss, 2008). Figure 2 outlines the methodology used to investigate each case study, compare findings across cases, identify the fit-performance relationships and develop the 'fitness approach' framework.

Figure 2
Research methodology



3.1 Measures

A challenge for contingency research is developing measures that are both valid and comparable across different contexts (Sousa and Voss, 2008). A measure that covers different contexts will increase generalisability, but may reduce validity (Boyer and Pagell, 2000). However, a context-specific measure will increase validity, but may reduce generalisability (Ketokivi and Schroeder, 2004). To overcome these problems, three business performance variables, twenty-one level of fit variables and four approach for creating fit variables were measured in each organisation. Tables 2, 3 and 4 show mix of perceptual (executive opinion) and objective (data and evidence) scales used to measure each variable. Given the difficulties of obtaining objective business performance measures (Boyer et al., 1997; Vickery et al., 1993; Ward et al., 1994; Ward et al., 1995) and the acceptance of perceptual measures as a substitute (Dess and Robinson, 1984; Joshi et al., 2003), the level of business performance was based on respondents' perceptions of how well the company performed relative to their major competitors. Where possible, these perceptions were then tested against data or evidence from archival information to further increase their validity.

Table 2
Measures of business performance

Dimension and variable	Definition	Scale
Business performance		
Return on sales	Earnings before interest and taxes/sales for current year	0-100%
Domestic market share	Figure for current year	0-100%

Table 3
Measures of level of fit within each organisation based on Hill and Brown (2007) framework

Dimension and variable	Definition	Scale
Market competitive criteria		
How are orders won?	Importance of 'offer fast deliveries' in winning orders	1 (very important) – 5 (not important)
	Importance of 'offer newer products more frequently' in winning orders	1 (very important) – 5 (not important)
	Importance of 'have lower selling price' in winning orders	1 (not important) – 5 (very important)
What does the company sell?	Importance of a 'capability unique from competitors' in winning orders	1 (very important) – 5 (not important)
	Similarity of product/service sold to that of competitors	1 (not similar) – 5 (very similar)
Product customisation	Frequency with which designs are subject to change between orders	1 (all the time) – 5 (never)
Key business task	Importance of 'responding to customer needs' in maintaining future business	1 (very important) – 5 (not important)
	Importance of 'reducing costs' in maintaining future business	1 (not important) – 5 (very important)
Key management task	Required level of management time spent designing new products/services	1 (very significant) – 5 (not significant)
	Required level of management time spent improving process throughput and efficiency	1 (not significant) – 5 (very significant)
Order volume	Volume of similar products or services sold in a year	1 (less than 5) – 5 (more than 1,000)
Technical similarity	Level of technically similarity of the products or services sold within different customer orders	1 (not similar) – 5 (very similar)
Operations strategy		
Organisation layout	Percentage of activities that are centralised across operations units	1 (0%) – 5 (100%)
Organisation structure	Percentage of activities grouped into cross-functional teams rather than functions	1 (100%) – 5 (0%)
Organisation orientation	Percentage of activities structured around customers rather than processes	1 (100%) – 5 (0%)
Performance measure orientation	Percentage of performance measures used to monitor and develop customer support	1 (100%) – 5 (0%)
	Percentage of performance measures used to monitor and reduce operations costs	1 (0%) – 5 (100%)
Employee incentivisation, reward and development orientation	Percentage of employee incentivisation, reward and development linked to improvements in customer support	1 (100%) – 5 (0%)
	Percentage of employee incentivisation, reward and development linked to reduction in operations costs	1 (0%) – 5 (100%)
Service delivery system		
Key task	Percentage of time within the delivery system spent processing work	1 (0%) – 5 (100%)
Key resource	Percentage of key tasks processed by technology or equipment	1 (0%) – 5 (100%)
Level of flexibility	Level of investment required to modify system to deliver new service designs	1 (very significant) – 5 (not significant)
Level of automation	Percentage of steps processed by a technology or equipment	1 (0%) – 5 (100%)
Level of customer interaction	Percentage of tasks processed in the presence of the customer	1 (100%) – 5 (0%)
Type of customer interaction	Percentage of tasks processed face-to-face with the customer	1 (100%) – 5 (0%)
Quality management orientation	Percentage of service quality checks completed by technology or equipment	1 (0%) – 5 (100%)
Level of service differentiation	Percentage of services that are also delivered by competitors	1 (0%) – 5 (100%)
Competitor barriers to entry	Percentage of services that could also be delivered by competitors	1 (0%) – 5 (100%)

Table 4
Measures of the approach used to create fit within each organisation

Dimension and variable	Definition	Scale
Market		
Key order-winner	Importance of 'have lower selling price' in winning orders	1 (not important) – 5 (very important)
	Importance of 'service or product design' in winning orders	1 (very important) – 5 (not important)
Stability	Volatility of demand over the last 5 years	5 (not significant) – 1 (very significant)
	Percentage of demand caused by unpredictable fluctuations	1 (0%) – 5 (100%)
Approach used to create fit		
Orientation of approach used to create fit	Percentage of strategic decisions that focus on developing internal resources and capabilities	1 (100%) – 5 (0%)
	Percentage of strategic decisions that focus on developing new services/products, new customers or new markets	1 (0%) – 5 (100%)
Process of creating fit	Percentage of strategic decisions that are planned and executed in line with the plan	5 (100%) – 1 (0%)
	Percentage of strategic decisions that emerge over time	5 (0%) – 1 (100%)

3.2 Case selection

Twelve case studies were investigated to ensure empirical grounding for the findings without reducing the depth of research within each case (Glaser and Strauss, 1967; Eisenhardt, 1989; Voss et al., 2002). Cases were selected using replication logic to either produce similar or contrary results to other case studies for predictable reasons (Voss et al., 2002). For example, the Construction Service (Company 3) and Communications Group (Company 8) had low domestic market share (literal replication), whereas the Utility Metering Service (Company 9) and Domestic Utility Provider (Company 11) had high domestic market share (theoretical replication). However, other companies were selected because they had differing levels of business performance, which the research hoped to explain. For example, the Medium-sized Retail Group (Company 4) had low domestic market share, but high return on sales and return on investment, whereas the Product Developer (Company 1) had low domestic market share and low return on investment, but high return on sales.

Other companies were selected because they were expected to have similar or different levels of fit and approaches used to create fit. For example, the Utility Metering Service (Company 9) and Emergency Response Service (Company 10) were both expected to have a high level of fit (literal replication), whereas the Large Business Utility Provider (Company 2) was expected to have a low level of fit (theoretical replication). Whereas both the Product Developer (Company 1) and Communications Group (Company 8) were expected to use an emergent process to create fit (literal replication), whereas the Medium-sized Retail Group (Company 4) and Emergency Response Service (Company 10) were expected to use a planned process to create fit (theoretical replication). Equally, organisations were selected to show a range of organisational characteristics, markets, operations and delivery systems as shown in Table 5. Selecting case studies in this way created the rich and robust database that is required for theory development (Eisenhardt, 1989; Yin, 1994). Once theoretical saturation had been reached no further case studies were added (Eisenhardt, 1989).

3.3 Data

A case study research protocol was used to guide the study and write the report for each company describing its business performance, level of fit and approach used to create fit. Quantitative and qualitative data were collected from multiple sources in a systematic way using structured interviews, site visits, archival information analyses and observations (Eisenhardt, 1989; Patton and Appelbaum, 2003; Yin, 2003). Each type of data helped strengthen the analysis and allowed triangulation on important issues to verify and test critical insights and findings.

Table 6
Some examples of the varying characteristics of the case studies researched grouped into different levels of performance

Case studies grouped by level of performance	Annual sales		Markets (♯)		Type of operation (♯)						♯ delivery system steps
	Revenue (£M)	Volume (000s)	Customers (000s)	Markets served	Services offered	Location	Sites	Employ-ees	Funct-ions	Typical levels of hierarchy	
High return and high share											
1 Utility Metering Service	156	1,430	1,430	5	3	UK	16	1,560	5	9	7
2 Product Developer	702	507	7	3	10	UK	4	39	7	4	8
3 Emergency Response Service	234	1,820	1,820	5	3	UK	16	1,820	5	9	8
4 Medium-sized Retail Group	1,634	4,618	1,603	9	7	NOR	13	1,430	7	8	7
5 Large-sized Retail Group	5,323	2,130	1,350	9	7	UK	24	990	5	7	7
6 Communications Group	6,131	3,512	2,130	7	7	UK	32	1,120	4	8	7
High return and low share											
7 Retail Bank	8,320	910	845	8	13	UK	1	975	10	7	8
Low return and low share											
8 Small Business Utility Provider	5,486	312	312	5	7	UK	7	1,235	5	7	7
9 Large Business Utility Provider	4,823	130	130	9	7	UK	5	390	4	8	7
10 Small-sized Retail Group	642	497	27	3	10	UK	3	24	7	4	8
11 Domestic Utility Provider	1,313	5,608	5,603	9	7	UK	7	1,560	7	9	7
12 Construction Service	273	241	72	5	7	UK	8	845	7	9	14

On-site, face-to-face interviews were conducted with several executives in each organisation lasting between one and two hours depending on the number of variables reviewed. Multiple questions were used to guide these interviews (Swamidass, 1986; Menda and Dilts, 1997; Boyer and McDermott, 1999; Sousa and Voss, 2008) and the range of executives interviewed reflected the type of organisation and the aspect of fit being reviewed. For example, more senior executives knew more about market competitive criteria and operations strategies, whereas less senior executives

better understood service delivery. Typically, executives worked in operations, sales, marketing or another support function and ranged from the managing director/CEO to executives working three levels beneath them. Interviews started with the managing director/CEO in each organisation, moved down the hierarchy and then stopped when the level of fit and approach used to create fit within each organisation was fully understood (Menda and Ditts, 1997). The data collected from these interviews was then tested against archival information such as operational performance, financial performance and minutes of meetings. Site visits were undertaken and observations were also made to understand how each business actually operated.

The level of fit within the organisation was then calculated using three steps. Firstly, the ideal profile was identified based on the mode position of the 'market competitive criteria' variables. As such, the research adopted the view that a firm's 'operations strategy' and 'service delivery system' must match its market needs rather than requirements defined within the literature (as in Ahmad and Schroeder, 1990) or a sample of top performers (as in Venkatraman and Prescott, 1990). Secondly, the level of misfit was measured within each variable by calculating the Euclidean distance between the position on the profile and the ideal position on the profile (Venkatraman, 1989; Venkatraman and Prescott, 1990; Choe et al., 1997; Ahmad and Schroeder, 2003; da Silveira, 2005). Finally, the level of fit within each variable was calculated by subtracting the measure of 'misfit' from the maximum Euclidean distance possible, which in this case is 4 because we are measuring on a five point scale. For example, the level of fit would be '4' if the position was at the ideal point on the profile or '3' if the position was one point away from the ideal position.

The approach used to create fit within each cases was then assessed by first calculating the Euclidean distance between the approach used to create fit and the key market order-winner; and between the process used to create fit and the level of market stability. This measure of 'misfit' is

then subtracted from the maximum Euclidean distance possible, which in this case is 4, to create a measure of fit. For example, the level of fit would be '4' if the process used to create fit matched the level of market stability or '3' if it was one point away from it. A detailed case study write-up was then completed using a standard format and tables to summarise the level of fit and approach used to create fit within each organisation. Finally, these findings were then presented back to the executives involved to verify the findings and so further increase validity. Where necessary, the case study was updated to clarify facts or include new ones.

3.4 Identifying fit-performance relationships

Once all the case studies had been completed, the level and type of business performance was correlated with the level of fit and approach used to create fit all twelve companies to understand the relationships that exists between fit and performance. Once these relationships had been identified, illustrations from the companies researched were used to both challenge and help explain them. From this analysis, fifteen propositions were identified and the 'fitness approach' framework was developed. These conclusions were then presented back to a representative number of executives from each participating firm at a one-day workshop to ensure that the critical fit-performance relationships had been identified, the 'fitness approach' framework accurately summarised the approaches of high performing businesses; and the conclusions reached were meaningful and relevant for their businesses. Where necessary, the fit-performance relationships and 'fitness approach framework' were updated.

4. Analysis and discussion

The research found varying levels of business performance, levels of fit and approaches used to create fit within the cases investigated. The findings from each case are summarised before showing

how the data was analysed to identify the fit-performance relationships and develop the 'fitness approach' framework.

4.1 Case descriptions

The first level of analysis identified the business performance, market competitive criteria, operations strategy, service delivery system and approach used to create fit within each organisation. Using the interview guide, the research team gathered information and produced a twenty to twenty-five page report for each case study. The findings from each organisation have been summarised in Appendices A, B, C, D and E.

4.2 Business performance, level of fit and approach used to create fit

Through joint discussions supported by interview notes, archival information, site visits and observations, the research team used the data in Tables 8, 9, 10, 11 and 12 to ranked each variable between 1 and 5. Table 7 shows the resulting business performance, level of fit and approach used to create fit within each case study. Of the twelve companies researched, four companies had high return on sales (scored between 4.0 and 5.0) and two had good return on sales (scored between 3.0 and 3.9). Whilst three companies had high return on investment and two had good return on investment. However, only two had high market share and three had good market share. Within the level of fit, five companies had an ideal profile of 1, three companies an ideal profile of 3 and four companies had an ideal profile of 5. The level of fit is then shown for all of the twenty-one variables investigated by comparing them with the ideal profile where 4.0 indicates the maximum level of fit and '-' shows that there was no fit. The approach used to create fit was then assessed by comparing the orientation of approach with the key market order-winner and the process used with the market stability. Again 4.0 is the maximum level of fit and '-' indicates that there was no fit.

Table 7
Business performance, level of fit and approach used to create fit within each case study

Dimension and variable	Case study (grouped by performance level)											
	High return and high share						High return and low share	Low return and low share				
	1	2	3	4	5	6	7	8	9	10	11	12
Business performance												
Return on sales	5.0	4.5	4.5	3.5	3.0	3.0	4.5	2.5	1.5	1.5	1.0	0.5
Domestic market share	3.0	3.5	3.0	5.0	4.0	3.0	1.5	1.0	2.0	2.0	1.0	2.0
Level of fit												
Ideal profile	5	1	5	1	3	3	5	3	1	1	5	1
Market competitive criteria fit												
How are orders won?	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	3.5	4.0	4.0	3.0
What does the company sell?	4.0	4.0	4.0	4.0	4.0	4.0	3.0	4.0	3.0	4.0	4.0	4.0
Product customisation	4.0	4.0	4.0	4.0	4.0	4.0	3.0	4.0	3.0	4.0	4.0	2.5
Key business task	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Key management task	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	3.5
Order volume	4.0	4.0	4.0	2.5	2.5	4.0	2.5	4.0	4.0	1.5	3.0	2.0
Technical similarity	4.0	4.0	4.0	3.5	3.5	4.0	3.5	4.0	3.0	3.5	3.0	3.5
Operations strategy fit												
Organisation layout	4.0	4.0	4.0	4.0	2.0	2.0	-	2.0	2.0	-	-	-
Organisation structure	4.0	4.0	4.0	4.0	4.0	2.0	-	2.0	2.0	1.0	-	-
Organisation orientation	4.0	4.0	3.5	4.0	2.0	2.0	3.0	2.0	2.0	1.0	-	-
Performance measure orientation	1.0	4.0	2.0	1.5	4.0	4.0	1.5	2.0	-	4.0	1.0	4.0
Employee incentivisation, reward and development orientation	1.0	3.0	3.0	3.5	4.0	4.0	0.5	2.0	-	4.0	1.0	2.0
Service delivery system fit												
Key task	4.0	3.5	4.0	3.5	3.5	4.0	-	2.0	-	1.0	1.0	1.5
Key resource	4.0	3.5	4.0	2.0	3.5	4.0	2.0	3.5	1.0	2.0	1.0	0.5
Level of flexibility	4.0	3.5	4.0	3.5	2.0	4.0	2.0	2.0	1.0	4.0	-	-
Level of automation	3.0	3.0	3.5	2.0	3.0	2.0	2.0	2.5	-	1.0	-	1.5
Level of customer interaction	4.0	4.0	4.0	2.0	2.0	2.0	4.0	3.0	2.0	4.0	-	-
Type of customer interaction	2.0	4.0	2.5	4.0	2.0	2.0	4.0	2.0	2.0	4.0	2.0	-
Quality management orientation	4.0	3.0	3.5	3.5	2.5	2.0	-	2.0	2.0	4.0	1.0	-
Level of service differentiation	4.0	3.0	4.0	3.5	2.0	2.0	2.0	2.0	-	1.0	3.0	-
Competitor barriers to entry	4.0	3.5	4.0	3.5	3.5	4.0	-	2.0	-	1.0	1.0	1.5
Approach used to create fit												
Fit between orientation of approach used to create fit and key market order-winner	4.0	4.0	4.0	4.0	4.0	3.5	2.5	2.0	2.0	2.0	1.0	1.0
Fit between process used to create fit and market stability	4.0	4.0	4.0	4.0	4.0	3.5	2.5	2.0	2.0	2.0	2.0	1.5

Note:
1. The maximum potential level is 4.0 for each measure of the level of fit and approach used to create fit
2. '-' indicates that there was no fit.

4.3 Impact of level of fit on business performance

Using the data in Table 7, each of the three measures of business performance were then correlated against the level of fit within each of the twenty-one variables used to assess the market competitive criteria, operations strategy and service delivery system in each organisation. Table 8 shows the variables that were found to have a significant relationship with business performance. These findings are discussed in more detail using illustrations from the companies researched to help explain the correlations that were identified.

Table 8
Impact of level of fit on business performance: variables with a signiicant relationship

Dimension and variable	Correlation with business performance	
	Return on sales	Domestic market share
Operations strategy fit		
Organisation layout	*0.75	
Organisation structure	*0.71	*0.79
Organisation orientation	**0.93	
Service delivery system fit		
Key task		*0.72
Key resource	*0.77	
Level of flexibility	*0.72	
Level of automation	*0.80	
Level of customer interaction	*0.74	
Level of service differentiation	*0.76	
Competitor barriers to entry		*0.72

Key:

* significant to 0.005
** significant to 0.001

As Table 8 shows, a number of different variables are positively related to either return on sales or market share. However, the only variable to positively impact both return on sales and market share is ‘organisation structure’. For example, the Medium-sized Retail Group (Company 4) initially created fit within its performance measures and employee incentives, rewards and development.

These helped it better serve its design-led market, but return on sales did not significantly grow until it re-orientated its 'organisation structure' around its different market segments. The new structure enabled it to better understand the true costs of serving different customers. As a result, the cost of serving these customers reduced (which increased return on sales) and it was able to develop new customer-specific service offerings (which increased its market share). The Product Developer (Company 1) had a similar experience. It initially increased fit within its delivery system to better support its design-led customer requirements. The service it offered became significantly different to its competitors and, as a result, it was able to increase prices and grow return on sales. Although these changes made it more profitable, its market share only started to grow when it introduced customer-based teams to identify their needs and then design delivery services to meet them. However, the improvement in fit within its 'organisation structure' not only increased market share, but also increased the profitability of these new sales as its customer-based teams were able to develop new services that customers believed added more value to their business and for which they were prepared to pay a premium. The Medium-sized Retail Group (Company 4) also grew market share and return on sales when it restructured its organisation into customer-based to support its design-led markets.

The same was true for companies operating in price-sensitive markets. The Utility Metering Service (Company 9) initially created fit within its operations strategy by changing its performance measures and its employee incentives, rewards and development. However, its return on sales and market share only significantly grew when it centralising its 'organisation structure' around specific business processes, which enabled it to develop a significant competitive advantage within its market. Also, although the Retail Bank (Company 12) still has low fit within all aspects of its delivery system, it has started to increased increase both return on sales and market share by re-orientating its 'organisation structure' around its business processes. Therefore, it seems that an

organisation Even though they are not clearly defined. This is an example of how an organisation can increase return on sales by re-orientating its organisation before fully developing fit within its other operations strategy variables. As such, it has increased return on sales even though fit within all its other operations strategy variables is still low.

Further investigation of why the level of fit within a firm's 'organisation structure' appears to more significant than other variables in improving business performance suggested that this was because it reflected the approach used to create fit within an organisation rather than the level of fit it created. A more detailed analysis of this is described in the next section.

4.4 Impact of approach used to create fit on business performance

As discussed earlier, the academic literature suggests that organisation should use a process of creating fit that reflects their market stability and the orientation of approach that reflects the key market order-winners they have to support. Table 9 analyses the findings presented earlier in Table 7 and suggests that both return on sales and market share are significantly and positively related to fit between the 'orientation of approach to create fit and key market order-winner' to be supported. For example, the Medium-sized Retail Group (Company 4), Large-sized Retail Group (Company 7) and Product Developer (Company 1) used a market-led approach to support the key service/product design order-winner within their markets. Whilst the Utility Metering Service (Company 9) and Emergency Response Service (Company 10) both used a resource-based approach to reduce their operating costs and support their price-sensitive markets. The high level of fit between the orientation of approach to create fit and the key market order-winner meant all these businesses performed well even though they had a low level of fit in certain aspects of their business.

Table 9
Impact of approach used to create fit on business performance: variables with a significant relationship

Dimension and variable	Correlation with business performance	
	Return on sales	Domestic market share
Orientation of approach used to create fit	**0.87	**0.82
Process used to create fit	**0.84	**0.83

Key:

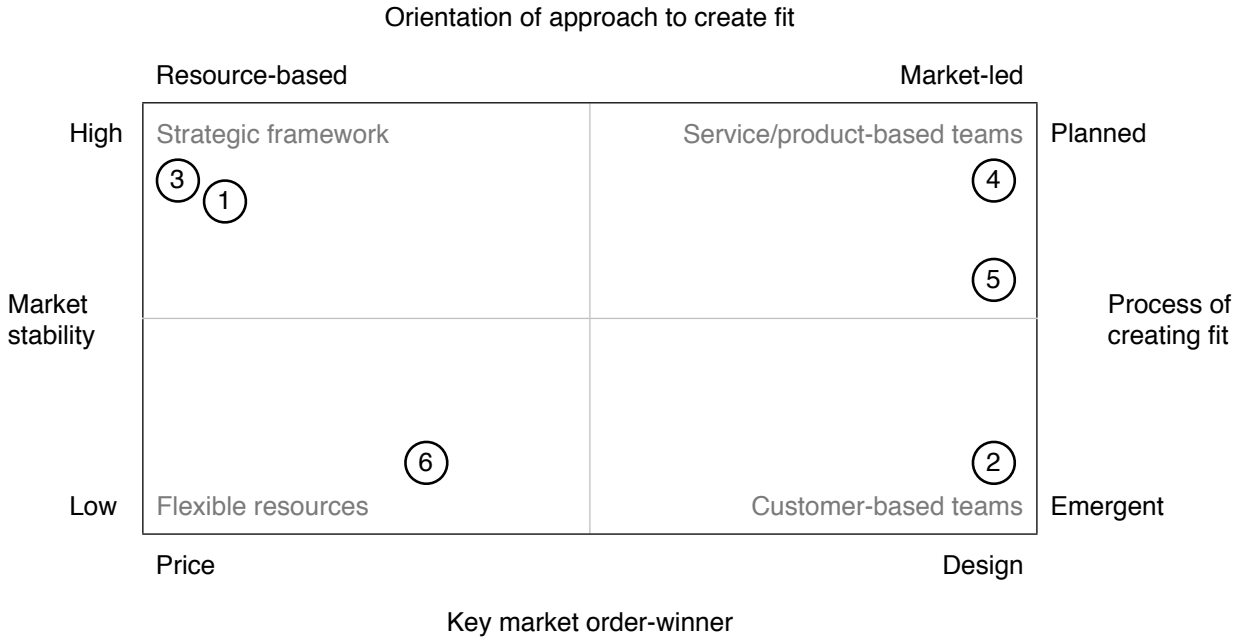
* significant to 0.005
** significant to 0.001

Equally, return on sales and market share are both significantly and positively related to fit between the process of creating fit and the level of market stability. For example, the Product Developer (Company 1) and Communications Group (Company 8) both used a highly emergent process to understand and support their ever-changing customer needs. By contrast, the Medium-sized Retail Group (Company 4), Utility Metering Service (Company 9) and Emergency Response Service (Company 10) all used a highly planned approach to develop fit with stable customer demands. In both instances, the high level of fit between the process used to create fit and the stability of the market they served meant the companies performed well even though they had a low level of fit in certain aspects of their business.

4.5 Approach for creating fit in high performing organisations

Given the impact that the approach for creating fit seems to positively impact both return on sales and market share, the high performing companies were reviewed to understand the approaches they used to support markets with different key order-winners and levels of stability. Figure 3 shows the 'fitness approach' framework that emerged from this analysis, which identifies four types of approach to be used within differing markets. Each type of approach is now explained in more detail.

Figure 3
'Fitness approach' framework showing the appropriate approach for creating fit within different markets and the approach taken by the 'high return and high share' businesses (Companies 1, 2, 3, 4, 5 and 6)



'Strategic framework' approach suits price-sensitive stable markets. Both the Emergency Response Service (Company 10) and the Utility Metering Service (Company 9) used a 'strategic framework' approach to create fit within their price-sensitive stable markets. In both cases, a 'strategic framework' had been developed and implemented by senior management that linked the overall strategic objectives of the business to performance contracts for individuals working within the business. This created a very systematic way of managing the business that enabled them to continually identify and reduce its costs, but meant they were not particularly good at adapting to their markets and modifying the level of fit within their organisation. However, the stability of their markets meant this was not a problem and the cost focus suited their price-sensitive customers. In the Emergency Response Service (Company 10) even though its performance measures were not aligned to the market and the level of customer interaction was too high, the 'strategic framework' created strategic clarity in the business and ensured that the daily activities within the business supported and maintained these objectives. As a result, it was able to achieve high return on sales

and good market share. Equally, a similar ‘strategic framework’ was used by the Utility Metering Service (Company 9), which meant it had high market share and good return on sales even though its performance measures and employee incentivisation, reward and development were not aligned to its markets.

‘Flexible resources’ approach suits price-sensitive unstable markets. In contrast, the Communications Group (Company 8) had to support highly competitive price-sensitive markets that were continually destabilised by competitor activity, which created a high level of customer churn in the industry. This market instability meant that it couldn’t use a rigid strategic framework approach to creating fit. Instead, it focused on developing ‘flexible resources’ that were lean, but able to adapt to market changes. This meant that it could respond quickly to counter act any competitor activity such as launching a new service or product or reducing their prices. This emergent and resource-based approach enabled to maintain a good market share and return on sales even though it had low fit within its organisation layout, structure and orientation.

‘Service/product-based teams’ approach suits design-led stable markets. The Medium-sized Retail Group (Company 4) competes in design-led stable markets using ‘service/product-based teams’ that are continually developing new services and products for their customers. These teams work in a very planned way looking ahead at expected future customer requirements and developing services and products to meet these needs. By looking ahead and developing services and products to meet expected rather than current market requirements, it ensures that it is seen as the leader in its market and is always one step ahead of its competitors. As a result, it maintains a high market share and good return on sales even though it has low fit within the key resource, level of automation and customer interaction in its delivery system and the performance measures it uses to manage them. By contrast, the Large-Sized Retail Group’s (Company 7) markets are more competitive and less

stable than those served by the Medium-sized Retail Group (Company 4) even though they are still design-led. To meet these requirements, its 'service/product-based teams' have to respond to current market changes as well as thinking about future customer requirements. To facilitate this, it uses a very sophisticated customer loyalty programme to track customer behaviour and preferences. This allows it to identify and respond quickly to any changes in its markets. It also trials new services and products within some of its stores to see how customers respond and, if necessary, it will then make further modifications before launching these products across its stores. Equally, it may decide to only stock these products within some of its outlets and not others. As a result, although it still uses 'service/product-based teams' to create fit within its organisation, these are more customer-focused than those used in the Medium-sized Retail Group (Company 4). This approach has enabled it to gain a high market share and good return on sales even though it has low fit within its organisation layout, organisation orientation and several aspects of its delivery system.

'Customer-based teams' approach suits design-led unstable markets. The markets served by the Product Developer (Company 1) are design-led and constantly changing as its customers are continually searching for new and better performing services and products. To support these markets, it uses key account managers who work closely with clients to understand their needs. Based on these requirements, a five-year business plan is developed for each client outlining key objectives and milestones. Customer specific performance measures and targets are then developed and used as the basis for employee incentives, rewards and development. As client needs change, they are immediately identified and reflected back into the operating strategy and service delivery system of the business. In this way, high fit is achieved and also maintained over time. These teams use daily customer feedback to monitor performance and identify areas for improvement. The people within these teams are highly skilled and able to flex and change service delivery in line

with differing market requirements. As a result, it has a high return on sales and a good market share.

5. Conclusions and recommendations for further research

This research makes several contributions to the study of internal strategic fit within service organisations. Firstly, it suggests that the approach to creating fit has a more significant impact on business performance than the level of fit it creates. Secondly, it develops the 'fitness approach' framework that identifies four approaches for creating fit within different markets: a 'strategic framework' for price-sensitive stable markets, 'flexible resources' for price-sensitive unstable markets, 'service/product-based teams' for design-led stable markets and 'customer-based teams' for design-led unstable markets. These findings answer the call for research to better understand the process of operations strategy (Adam and Swamidass, 1989; Anderson et al., 1989, 1991; Leong et al., 1990; Minor et al., 1994; Dangayach and Deshmukh, 2001; Boyer et al., 2005). Future research now needs to test these fidnigns on a wider sample of service organizations. It might also be a good starting point for investigating manufacturing organisations (da Silveira's, 2005; da Silveira and Sousa, 2010).

These findings also have significant implications for practitioners. Firstly, it also suggests that if they want to improve both return on sales and market share at the same time, then they should focus on developing the approach to creating fit within their business rather than the level of fit that it creates. Secondly, it helps them select the appropriate approach to creating fit given the key order-winner and stability of their market. As with all case study research, the findings and conclusions presented have their limitations. Although the case studies were selected using replication logic, the findings and conclusions may not be generalisable to all organisations.

References

Adam, E.E. and Swamidass, P.M., 1989. Assessing operations management from a strategic perspective. *Journal of Management* 15 (6), 639-57.

Ahmad, S. and Schroeder, R.G. 2003. The impact of human resource management practices on operational performance: Recognising country and industry differences. *Journal of Operations Management* 21 (1), 19

Anand, G. and Ward, P.T. 2004. Fit, flexibility and performance in manufacturing: Coping with dynamic environments. *Production and Operations Management* 13 (4), 369-85.

Anderson. J.C, Cleveland. G. and Schroeder R.G. 1989. Operations strategy: A literature review. *Journal of Operations Management* 8 (2), 133-158.

Anderson, J.C., Schroeder, R.G. and Cleveland, G., 1991. The process of manufacturing strategy: some empirical observations and conclusions. *International Journal of Operations and Production Management* 11(3), 86-110.

Anderson, M. and Sohal, A.S. 1999. A study of the relationship between quality management practices and performance in a small business. *The International Journal of Quality and Reliability Management.* 16 (9), 859-913.

Barnes, D., 2002. The complexities of the manufacturing strategy process in practice. *International Journal of Operations and Production Management*. 22(10), 1090-111.

Barney, J.B., 1991. Firm resources and sustained competitive advantage. *Journal of Management* 17(1), 99-120.

Benbasat, I. Goldstein. D.K. and Mead. M. 1987. The case research strategy in studies of information systems. *Management Information Systems Quarterly* 11 (3), 369-386.

Berry, W., Bozarth, C., Hill, T., Klompmaker, J., 1991. Factory focus: Segmenting markets from an operations perspective. *Journal of Operations Management* 10 (3), 363–388.

Bourgeois, L.J. III. 1980. Performance and consensus. *Strategic Management Journal* 1 (3), 227-48.

Boyer, K.K., Leong, G.K., Ward, P.T., Krajewski, L.J. 1997. Unlocking the potential of advanced manufacturing technologies. *Journal of Operations Management* 15 (4), 331–347.

Boyer. K.K. and McDermott. C. 1999. Strategic consensus in operations strategy. *Journal of Operations Management* 17 (3), 289-305.

Boyer. K. and Pagell, M. 2000. Measurement issues in empirical research: Improving measures of operations strategy and advanced manufacturing technology. *Journal of Operations Management* 18 (3), 361-397.

Boyer, K., Swink, M., Rosenzweig, E. 2005. Operations strategy research in the POMS journal. *Production and Operations Management* 14 (4), 442–449.

Brown, S., Squire, B. and Blackmon, K. 2007. The contribution of manufacturing strategy involvement and alignment to world-class manufacturing performance. *International Journal of Operations and Production Management* 27 (3), 282-302.

Chase, R.B. and Aquilano, N.J. 1981. *Production and operations management – A life cycle approach*. Irwin, Homewood, IL/Boston.

Choe. K., Booth, D. and Hu, M. 1997. Production competence and its impact on business performance. *Journal of Manufacturing Systems* 16 (6), 409-422.

Dangayach, G.S. and Deshmukh, S.G., 2001. Manufacturing strategy – literature review and some issues. *International Journal of Operations and Production Management* 21(7), 884-932.

Dess, G.G. and Robinson, R.B. 1984. Measuring organisatonal performance in the absence of objective measures: the case of the privately-held firm and conglomerate business unit. *Strategic Management Journal* 5, 265-73.

Draaijer. D. 1993. *Market orientated manufacturing systems – theory and practice*. Drukkerij Wormgoor.

Drazin, R., Van de Ven, A. H., 1985. Alternative forms of fit in contingency theory. *Administrative Science Quarterly* 30 (4), 514–539.

Ellram, L.M., 1996. The use of the case study method in logistics research. *Journal of Business Logistics* 17 (2), 93–138.

Eisenhardt. K.M. 1989. Building theories from case study research. *Academy of Management Review* 14 (4), 532-550.

Ferdows, K. and De Meyer, A., 1990. Lasting improvements in manufacturing performance in search of a new theory. *Journal of Operations Management* 9 (2), 83-168.

Glaser, B.G. and Strauss, A.L. 1967. *The discovery of grounded theory: Strategies for qualitative research*. Aldine. Chicago.

Grant, R.M., 1991. The resource-based theory of competitive advantage: implications for strategy formulation. *California Management Review* Spring, 114-35.

Harrington, R.J., Lemak, D.J., Reed, R. and Kendall, K.W., 2004. A question of fit: The links among environment, strategy formulation and performance. *Journal of Business and Management* 10 (1), 15-38.

Hayes, R.H., Schmenner, R.W., 1978. How should you organise manufacturing? *Harvard Business Review* 56 (1), 105–119.

Hayes, R.H. and Upton, D.M., 1998. Operations-based strategy. *California Management Review* 40 (4), 8-24.

Hayes. R.H. and Wheelwright. S.C. 1984. *Restoring Our Competitive Edge: Competing Through Manufacturing*. Wiley. New York.

Heskett. J.L. 1986. *Managing in the service economy*. HBS Press. Boston, MA.

Hill, A.J., 2008. How to organise operations: Focusing or splitting? *International Journal of Production Economics*, 112, 646-654.

Hill. A.J. and Brown. S. 2007. Strategic profiling: A visual representation of internal strategic fit in service organisations. *International Journal of Operations and Production Management* 27 (12), 1333-1361.

Hill, A.J. and Hill, T.J. 2009. *Manufacturing operations strategy: Text and Cases*. 2nd Edition. Macmillian. London.

Hill, A.J. and Hill, T.J. 2011. *Essential operations management*. Macmillian. London.

Joshi. M.P.. Kathuria. R. and Porth. S.J. 2003. Alignment of strategic priorities and performance: an integration of operations and strategic management perspectives. *Journal of Operations Management* 21 (3), 353-369.

Kaplan, R.S. and Norton, D.P. 1992. The balance scorecard - measures that drive performance. *Harvard Business Review* 69, 71-79.

Kathuria. R. and Davis. E.B. 2001. Quality and work force management practices: The managerial performance implications. *Production and Operations Management* 10 (4), 460-477.

Ketchen, D.J. Jr, G Hult, T.M. and Slater, S.F., 2007. Toward greater understanding of market orientation and the resource-based view *Strategic Management Journal* 28 (9), 961-991.

Ketokivi, M., Schroeder, R., 2004. Manufacturing practices, strategic fit and performance: a routine-based view. *International Journal of Operations and Production Management* 24 (2), 171–191.

Kim, Y. and Lee, J., 1993. Manufacturing strategy and production systems: an integrated framework. *Journal of Operations Management* 11 (1), 3-16.

Kotha. S. and Orne. D. 1989. Generic manufacturing strategies: A conceptual synthesis. *Strategic Management Journal* 10 (3), 211-231.

Kotha, S. and Swamidass, P.M. 2000. Strategy, advantaged manufacturing technology and performance: Empirical evidence from US manufacturing firms. *Journal of Operations Management* 18(3), 297-313.

Lau, R.S.M. 2002. Competitive factors and their relative importance in the US electronics and computer industries. *International Journal of Operations and Production Management* 21 (1), 125-136.

Leong. G.K.. Snyder. D.L. and Ward. P.T. 1990. Research in the process and content of manufacturing strategy. *OMEGA International Journal of Management Science* 18 (2), 109-122.

Lindman, F.T., Callarman, T.E., Fowler, K.L. and McClatchey, C.A. 2001. Strategic consensus and manufacturing performance. *Journal of Managerial Issues* 13 (1), 45.

Machuca, J.A.D., Gonzalez-Zamora, M. and Aguilar-Escobar, V.G. 2007. Service Operations Management research. *Journal of Operations Management* 25 (3), 585–603

Menda, R. and Dilts. D. 1997. The manufacturing strategy formulation process: Linking multifunctional viewpoints. *Journal of Operations Management* 15 (4), 223-241.

de Menezes, L.M., Wood, S. and Gelade, G. 2010. The integration of human resources and operation management practices and its link with performance: A longitudinal latent class study. *Journal of Operations Management* 28 (4), 455-471.

Meredith, J., 1998. Building operations management theory through case and field research. *Journal of Operations Management* 16 (4), 441–454.

Miller, J.G. 1981. Fit production systems to the task. *Harvard Business Review* 59 (1), 145-154.

Miller, D. 1996. Configurations revisited. *Strategic Management Journal* 17, 505-512.

Mills, J., Neely, A., Platts, K. and Gregory, M. 1998. Manufacturing strategy: a pictorial presentation. *International Journal of Operations and Production Management*, 18(11), 1067-1085.

Minarro-Viseras, E., Baines, T. and Sweeney, M. 2005. Key success factors when implementing strategic manufacturing initiatives. *International Journal of Operations and Production Management*, 25 (2), 151-79.

Minor, E.D., Hensley, R.L. and Wood, R.D. Jr, 1994. A review of empirical manufacturing strategy studies. *International Journal of Operations and Production Management* 14(1), 5-25.

Mintzberg, H. and Waters, J.A., 1985. Of strategies, deliberate and emergent. *Strategic Management Journal* 6, 257-72.

Nayyar. P.A. 1992. Performance effects of three foci in service firms. *Academy of Management Journal* 35 (5), 985-1009.

Nilsson, F. and Kaid, M. 2002. Recent advances in performance management: The Nordic case. *European Management Journal* 20 (3), 235-245.

Papke-Shields. K.E. and Malhotra. M.K. 2001. Assessing the impact of the manufacturing executive's role on business performance through strategic alignment. *Journal of Operations Management* 19 (1), 5-22.

Parthasarthy, R. and Sethi, S.P. 1992. The Impact of Flexible Automation on Business Strategy and Organizational Structure. *The Academy of Management Review* 17 (1), 86-112.

Patton, E. and Appelbaum, S.H. 2003. The case for case studies in management research. *Management Research News* 26 (5), 60-72.

Platts, K.W., Mills, J.F., Bourne, M.C., Neely, A.D., Richards, A.H. and Gregory, M.J., 1998. Testing manufacturing strategy formulation processes. *International Journal of Production Economics* 56/57, 517-23.

Ramanujam, V. and Venkatraman, N. 1987. Planning system characteristics and planning effectiveness. *Strategic Management Journal* 8 (5), 453-469.

Robinson. A.G. and Stern. S. 1998. *Corporate creativity: How innovations and improvement actually happen*. Berrett-Koehler Publishers. San Francisco. CA.

Ross, A. 2002. A multi-dimensional empiricial exploration of technology investment, coordination and firm performance. *International Journal of Physical Distribution and Logistics Management* 32 (7), 591-609.

Safizadeh, M.H., Ritzman. L.P., Sharma. D. and Wood. C. 1996. An empirical analysis of the product-process matrix. *Management Science* 42 (11), 1576-1591.

Santala. M. and Parvinen. P. 2007. From strategic fit to customer fit. *Management Decision* 45 (3), 582-601.

da Silveira, G. 2005. Market priorities, manufacturing configuration, and business performance: an empirical analysis of the order-winners framework. *Journal of Operations Management* 23 (6), 662–675.

da Silveira, G. and Sousa, R. 2010. Paradigms of choice in manufacturing strategy: Exploring performance relationships of fit, best practices and capability-based approaches. *International Journal of Operations and Production Management* 30 (12), 1219-1245.

Shostack, G.L. 1984. Designing services that deliver. *Harvard Business Review* Jan-Feb, 133-139.

Siggelkow, N. 2002. Evolution toward fit. *Administrative Science Quarterly* 47, 125-159.

Stalk, G., Evans, P. and Shulman, L.E., 1992. Competing on capabilities: the new rules of corporate strategy *Harvard Business Review* March-April, 57-69.

Smith. T.M. and Reece. J.S. 1999. The relationship of strategy, fit, productivity and business performance in a service setting. *Journal of Operations Management* 17 (2), 145-161.

Sousa, R. and Voss, C.A. 2008. Contingency research in operations management practices, *Journal of Operations Management* 26, 697-713.

Stepanovich, P.L. and Mueller, J.D. 2002. Mapping Strategic Consensus*, Journal of Business and Managemen*t, 8 (2), 147-164.

Stobaugh. R. and Telesio. P. 1983. Match manufacturing policies and product strategy. *Harvard Business Review* 61 (2), 113-120.

Swamidass. P.M. 1986. Manufacturing strategy: its assessment and practice. *Journal of Operations Management* 6 (3-4), 471-85.

Swamidass, P.M., Newell, W.T., 1987. Manufacturing strategy, environmental uncertainty and performance: a path analytic model. *Management Science* 33 (4), 509–525.

Tracey, M., Vonderembse, M.A. and Lim, J-S., 1999. Manufacturing technology and strategy formulation: Keys to enhancing competitiveness and improving performance. *Journal of Operations Management* 17 (4), 411-428.

Van Dierdonck. R. and Miller. J.G. 1980. Designing production planning and control systems. *Journal of Operations Management* 1 (1), 37-46.

Venkatraman. N. 1989. The concept of fit in strategy research: Toward verbal and statistical correspondence. *Academy of Management Review* 14 (3), 423-444.

Venkatraman. N. and Camillus. J.C. 1984. Exploring the concept of fit in strategic management. *The Academy of Management Review* 9 (3), 513-25.

Venkatraman, N. and Prescott, J.E., 1990. Environment-strategy coalignment: an empirical test of its performance implications. *Strategic Management Journal* 11 (1), 1–23.

Vickery, S.K., Droge, C., Markland, R.E., 1993. Production competence and business strategy: do they affect business performance. *Decision Sciences* 24 (2), 435–455.

Voss, C.. Tsikriktsis, N. and Frohlich, M. 2002. Case research in operations management. *International Journal of Operations and Production Management* 22 (2), 195-219.

Ward, P.T. and Duray, R., 2000. Manufacturing strategy in context: environment, competitive strategy and manufacturing strategy. *Journal of Operations Management*, 18 (2), 123-38.

Ward, P.T., Duray, R., Leong, G.K. and Sum, C.C., 1995. Business environment, operations strategy, and performance: an empirical study of Singapore manufacturers. *Journal of Operations Management* 13, 99-115.

Ward, P.T., Leong, G.K., Boyer, K.K., 1994. Manufacturing proactiveness and performance. *Decision Sciences* 25 (3), 337–359.

Weick, K.E. 2007. The generative properties of richness. *Academy of Management Journal* 50 (1) 14-35.

Witcher. B.J. and Chau. V.S., 2007. Balanced scorecard and hoshin kanri: dynamic capabilities for managing strategic fit. *Management Decision* 45 (3), 518-538.

Yin, R.K. 1994. *Case study research: Design and methods*. 2nd edition. Sage.

Yin, R.K. 2003. Applications of case study research. 2nd edition. Sage

Youndt. M.A.. Snell. S.A.. Dean Jr.. J.W. and Lepak. D.P. 1996. Human resource management, manufacturing strategy and firm performance. *Academy of Management Journal* 39 (4), 836-866.

Zajac. E.J.. Kraatz. M.S. and Bresser. R.K.F. 2000. Modelling the dynamics of strategic fit: a normative approach to strategic change. *Strategic Management Journal* 21 (4), 429-53.

Zhou, K.Z., Li, J.J., Zhou, N. and Su, C. 2008. Market orientation, job satisfaction, product quality, and firm performance: evidence from China *Strategic Management Journal* 29 (9), 985-1001.

Appendix A
Summary of business performance for each case study

Aspect	Case study (grouped by performance level)											
	High return and high share						High return and low share	Low return and low share				
	1	2	3	4	5	6	7	8	9	10	11	12
	Utility Metering Service	Product Developer	Emergency Response Service	Medium-sized Retail Group	Large-sized Retail Group	Communicat-ions Group	Retail Bank	Small Business Utility Provider	Large Business Utility Provider	Small-sized Retail Group	Domestic Utility Provider	Construction Service
Return on sales	Highest in its industry with 5 major competitors	Joint largest in its industry with 6 major competitors	Joint largest in its industry with 6 major competitors	Third largest in its industry with 4 major competitors	Third largest in its industry with 5 major competitors	Fourth largest in its industry with 7 major competitors	Second largest in its industry with 9 major competitors	Fifth largest in its industry with 8 major competitors	Seventh largest in its industry with 8 major competitors	Fifth largest in its industry with 6 major competitors	Seventh largest in its industry with 8 major competitors	Sixth largest in its industry with 5 major competitors Struggling to survive
Return on investment	Fourth largest in its industry	Joint largest in its industry	Third largest in its industry	Second equal largest in its industry	Second largest in its industry	Sixth largest in its industry	Third largest in its industry	Seventh largest in its industry	Sixth largest in its industry	Fourth largest in its industry	Fifth equal largest in its industry	Fifth largest in its industry
Domestic market share	Third equal largest in its industry	Third largest in its industry	Third equal largest in its industry	Highest in its industry	Second largest in its industry with 6 major competitors	Fourth largest in its industry	Seventh largest in its industry	Seventh largest in its industry	Sixth largest in its industry	Fourth equal largest in its industry	Seventh largest in its industry	Fourth largest in its industry

Appendix B
Summary of market competitive criteria for each case study

Aspect	Case study (grouped by performance level)											
	High return and high share						High return and low share	Low return and low share				
	1	2	3	4	5	6	7	8	9	10	11	12
	Utility Metering Service	Product Developer	Emergency Response Service	Medium-sized Retail Group	Large-sized Retail Group	Communicat -ions Group	Retail Bank	Small Business Utility Provider	Large Business Utility Provider	Small-sized Retail Group	Domestic Utility Provider	Construction Service
Order winners (in order of importance)	Price Customer service Safety	Product design Customer relationship Technical support	Delivery speed Price Customer service Safety	Customer relationship Product design Customer service	Price Product design	Price Product design Customer relationship	Price Customer service Brand name	Price Customer service	Customer service Product design Price	Customer relationship Product design Customer service	Price Brand name	Price Delivery reliability
What does the company sell?	Standard product	Design capability	Standard product	Customised product	Semi-customised product	Semi-customised product	Standard product	Semi-customised product	Customised product	Customised product	Standard product	Standard product
Product customisation	None	High	None	High	Medium	Medium	Low	Medium	Medium to high	Medium to high	Low	Low
Key business task (in order of importance)	Reduce costs	Respond to customer needs	Reduce costs	Respond to customer needs	Reducing costs Respond to customer needs	Reducing costs Respond to customer needs	Reduce costs	Reducing costs Designing products	Respond to customer needs	Respond to customer needs	Reduce costs	Reducing costs Reduce customer complaints
Key management task (in order of importance)	Improve efficiency	Design new products and services Manage customers	Improve efficiency	Design new products and services Manage customers	Improve efficiency Design new products and services	Improve efficiency Design new products and services	Improve efficiency Manage customers	Improve efficiency Manage customers	Design new products and services Manage customers	Design new products and services	Improve efficiency	Improve efficiency
Order volume	High	Low	High	Medium	High	Medium	High	Medium	Low	High	High	High
Technical similarity (% similar orders)	96	5	95	16	56	59	88	42	30	18	93	96

Appendix C
Summary of operations strategy for each case study

Aspect	Case study (grouped by performance level)											
	High return and high share						High return and low share	Low return and low share				
	1 Utility Metering Service	2 Product Developer	3 Emergency Response Service	4 Medium-sized Retail Group	5 Large-sized Retail Group	6 Communicat-ions Group	7 Retail Bank	8 Small Business Utility Provider	9 Large Business Utility Provider	10 Small-sized Retail Group	11 Domestic Utility Provider	12 Construction Service
Organisation layout (% activities centralised)	90	3	95	7	90	88	12	86	48	87	15	90
Organisation structure (% activities grouped into functions)	100	5	90	12	53	88	10	89	51	79	18	93
Organisation orientation (% activities oriented to processes rather than customers)	100	4	90	9	12	85	84	84	54	84	24	96
Performance measure orientation (% measures focused on cost reduction)	90	Varies by customer (based on their needs)	84	58	53	58	52	9	61	75	28	5
Employee incentivisation, reward and development orientation	Incentives linked to cost and delivery performance Structured appraisal system linked to promotion	Incentives linked to customer specific performance targets Formal development around customer needs	Incentives linked to cost and delivery performance Structured appraisal system linked to promotion	Incentives linked to customer specific performance targets Formal development around customer needs	Incentives linked to cost and profit Minimal unstructured development	No incentives Minimal unstructured development	No incentives Formal development linked to skill assessment	No incentives Minimal unstructured development	No incentives Minimal unstructured development	Incentives linked to cost and profit Minimal unstructured development	No incentives Minimal unstructured development	No incentives Minimal unstructured development

Appendix D

Summary of service delivery system for each case study

Aspect	Case study (grouped by performance level)											
	High return and high share						High return and low share	Low return and low share				
	1	2	3	4	5	6	7	8	9	10	11	12
	Utility Metering Service	Product Developer	Emergency Response Service	Medium-sized Retail Group	Large-sized Retail Group	Communicat-ions Group	Retail Bank	Small Business Utility Provider	Large Business Utility Provider	Small-sized Retail Group	Domestic Utility Provider	Construction Service
Key task (% time processing orders)	95	8	92	12	52	58	95	16	81	45	29	53
Key resource (in order of importance)	Computer system	People	Computer system	People Computer system	Computer system People	Computer system People	Computer system People	Computer system People	Computer system People	Computer system People	Computer system People	People
Level of flexibility (investment to modify process)	High	Low	High	Low	Low	Medium to high	Medium	High	Medium	Low to medium	High	High
Level of automation (% activities)	75	11	83	48	55	71	52	88	89	78	42	42
Level of customer interaction	Low	High	Low	Medium	High	Low	Low	Low	Medium	High	Low	Low
Type of customer interaction (role in delivery system)	Request service	Help design product	Request service	Help design product	Request service	Request service	Request service	Request service	Help design product	Request service	Request service	Request service
Quality management orientation (in order of importance)	Automated procedures Customer surveys	Daily customer feedback	Automated procedures Customer surveys	Daily customer feedback	Automated procedures Customer surveys	Automated procedures Customer complaints	Order sample analysed	Customer complaints	Order sample analysed Customer complaints	Automated procedures Customer surveys	Automated procedures Customer complaints	Customer complaints
Level of service differentiation	Speed of delivering service	Service customisation	Delivery speed	Service customisation	None	None	None	None	None	Service customisation	None	None
Competitor barriers to entry	Technology Market share	Customer relationship Product design	Technology Market share People	Customer relationship Product design	None	None	None	None	None	Customer relationship	None	None

Appendix E
Summary of market and approach used to create fit for each case study

Aspect	Case study (grouped by performance level)											
	High return and high share						High return and low share	Low return and low share				
	1 Utility Metering Service	2 Product Developer	3 Emergency Response Service	4 Medium-sized Retail Group	5 Large-sized Retail Group	6 Communicat-ions Group	7 Retail Bank	8 Small Business Utility Provider	9 Large Business Utility Provider	10 Small-sized Retail Group	11 Domestic Utility Provider	12 Construction Service
Key market order winners (in order of importance)	Price	Product design	Delivery speed	Customer relationship	Price	Price	Price	Price	Customer service	Customer relationship	Price	Price
	Customer service	Customer relationship	Price	Product design	Product design	Product design	Customer service	Customer service	Product design	Product design	Brand name	Delivery reliability
	Safety	Technical support	Customer service	Customer service		Customer relationship	Brand name		Price	Customer service		
			Safety									
Level of market stability	Very low volatility	Very high volatility	Very low volatility	Very low volatility	Medium volatility	High volatility	Low volatility	Medium volatility	Medium volatility	Medium volatility	Very low volatility	High volatility
	10% demand caused by unpredictable factors	89% demand caused by unpredictable factors	12% demand caused by unpredictable factors	11% demand caused by unpredictable factors	41% demand caused by unpredictable factors	73% demand caused by unpredictable factors	19% demand caused by unpredictable factors	52% demand caused by unpredictable factors	49% demand caused by unpredictable factors	42% demand caused by unpredictable factors	3% demand caused by unpredictable factors	82% demand caused by unpredictable factors
Orientation of approach used to create fit (% strategic decisions that focus on developing)	97% new internal resources and capabilities	10% new internal resources and capabilities	98% new internal resources and capabilities	10% new internal resources and capabilities	10% new internal resources and capabilities	52% new internal resources and capabilities	64% new internal resources and capabilities	95% new internal resources and capabilities	62% new internal resources and capabilities	55% new internal resources and capabilities	28% new internal resources and capabilities	97% new internal resources and capabilities
	4% new services/ products and markets	95% new services/ products and markets	3% new services/ products and markets	95% new services/ products and markets	95% new services/ products and markets	55% new services/ products and markets	51% new services/ products and markets	10% new services/ products and markets	50% new services/ products and markets	53% new services/ products and markets	75% new services/ products and markets	5% new services/ products and markets
Process of creating fit (% strategic decisions)	81% planned and executed in line with the plan	6% planned and executed in line with the plan	79% planned and executed in line with the plan	80% planned and executed in line with the plan	59% planned and executed in line with the plan	29% planned and executed in line with the plan	38% planned and executed in line with the plan	8% planned and executed in line with the plan	7% planned and executed in line with the plan	19% planned and executed in line with the plan	49% planned and executed in line with the plan	78% planned and executed in line with the plan
	19% emerge over time	94% emerge over time	21% emerge over time	20% emerge over time	41% emerge over time	71% emerge over time	62% emerge over time	92% emerge over time	93% emerge over time	81% emerge over time	51% emerge over time	22% emerge over time