Performance Management within the NHS

Dissertation submitted in part fulfilment of the Master of Business Administration

Arif Patel: 1510299
The author would like to thank…

- Family and friends, for their continuous support and for putting up with changeable moods - particularly, close to submission time

- Dr Peter Moran, Dr Mustafa Rashid and Martin McAreavey, for their guidance and support throughout my learning experience at the university

- Colleagues in the Electronics & Biomedical Engineering Department for their understanding over the last three years

- The dedicated staff at East Lancashire Hospitals NHS Trust, who provide exceptional care for the local community and rarely receive the appropriate praise.

“The ultimate goal is to manage quality. But you cannot manage it until you have a way to measure it, and you cannot measure it until you can monitor it”

Florence Nightingale
# TABLE OF CONTENTS

Acknowledgements................................................................................................. I
Table of Contents .................................................................................................. II
Table of Figures..................................................................................................... VI
Abstract................................................................................................................ VII

## Chapter 1: Introduction .................................................................................... 2
1.1: Background .................................................................................................... 2
1.2: Area of investigation ................................................................................... 3
  Research scope ................................................................................................. 3
  Research question and objectives ................................................................... 5

## Chapter 2: Literature Review .......................................................................... 7
  Introduction ...................................................................................................... 7
  2.1: The concept of performance .................................................................... 8
    NHS performance - quality healthcare ......................................................... 9
    Section summary .......................................................................................... 11
  2.2: Measuring performance ......................................................................... 12
    The CQC performance framework .............................................................. 13
    CQC’s PM method and processes: .............................................................. 14
  2.3: Modelling performance ......................................................................... 15
    Mapping the A&E department .................................................................... 15
    An open systems perspective .................................................................... 18
    Open systems themes and components .................................................... 19
  2.4: Conceptual framework ......................................................................... 24
    Constructing the framework ....................................................................... 24
    Chapter summary ......................................................................................... 26
Chapter 3: Research Methodology ................................................................. 28
  Introduction ................................................................................................. 28
  3.1: Research philosophy ............................................................................ 29
    A critical realism philosophy for this study ............................................. 31
  3.2. Research approach, strategy and design .............................................. 33
    Research approach ................................................................................... 33
    Mixed methods strategy ........................................................................... 33
    Research design ....................................................................................... 34
  3.3 Data collection ..................................................................................... 35
    Self-completion questionnaire (SCQ) ....................................................... 35
    Semi-structured interviews (SSI) ............................................................... 36
    Secondary data analysis (SDA) ................................................................. 37
    Sampling .................................................................................................. 38
  3.4 Data analysis ......................................................................................... 41

Chapter 4: Findings and Analysis ............................................................... 44
  Participant demographics ........................................................................... 44
  4.1: Factor 1 - Vision, mission and values: ................................................. 47
    Factor 1: SCQ results ............................................................................... 47
    Factor 1: SDA ........................................................................................... 48
    Factor 1: SSI feedback .............................................................................. 48
    Factor 1: Discussion ............................................................................... 49
  4.2: Factor 2 - Leadership and culture ....................................................... 50
    Factor 2: SCQ results ............................................................................... 50
    Factor 2: SDA ........................................................................................... 51
    Factor 2: SSI feedback .............................................................................. 51
    Factor 2: Discussion ............................................................................... 52
  4.3: Factor 3 - Work environment, management and control systems ......... 53
    Factor 3: SQC results ............................................................................... 53
    Factor 3: SDA ........................................................................................... 54
    Factor 3: SSI feedback .............................................................................. 54
    Factor 3: Discussion ............................................................................... 56
Part 2 of the Dissertation

Introduction  ......................................................................................................................... 125
Structure of this reflective summary ...................................................................................... 125
Stage 1: Focus on meta-abilities .......................................................................................... 126
   Personal skills developed .................................................................................................. 126
Stage 2: Personal transition .................................................................................................. 129
   The role of the learning set .............................................................................................. 129
   Constraints in the workplace ............................................................................................ 129
Stage 3: Focussed transition .................................................................................................. 130
   Auto-critique of the methods used .................................................................................. 130
Stage 4: Organisational relevance .......................................................................................... 131
   Auto-critique of the conceptual framework ...................................................................... 131
End of Part 2 .......................................................................................................................... 133

End of paper/word count ....................................................................................................... 134
**TABLE OF FIGURES**

Figure 1: Methodical review of the literature ................................................................. 7
Figure 2: Six dimensions of quality healthcare - adapted from Maxwell (1992, p. 171) ........ 8
Figure 3: Dimensions of quality healthcare (NHS England, 2016) .................................. 9
Figure 4: ‘10-dimension of SERVQUAL’ - adapted from Zeithaml, et al. (1990, pp. 21-22) ... 10
Figure 5: ‘5-dimensions of SERVQUAL’ with links to health (Zeithaml, et al., 1990, p. 26) .. 11
Figure 6: CQC’s questions and dimensions (2015, p. 8) ................................................... 13
Figure 7: CQC’s performance regulation model ............................................................... 14
Figure 8: Comparing models of OE - adapted from Martz (2013, pp. 394-395) .................. 17
Figure 9: ‘Open systems perspective’ - adapted from Burke & Litwin (1992) ..................... 18
Figure 10: Assumptions of open systems - adapted from Cawsey, et al. (2015) ................. 18
Figure 11: Analysis of three ‘open systems’ models and the CQC framework ..................... 23
Figure 12: An outline for A&E performance management CF ........................................ 24
Figure 13: The conceptual framework .............................................................................. 25
Figure 14: ‘The Honeycomb of Research Methodology’ - adapted from Wilson (2014) .... 28
Figure 15: Comparing research philosophies adapted from Saunders, et al. (2009) ......... 29
Figure 16: Purpose of questionnaires ............................................................................... 35
Figure 17: Scaling methods used - adapted from Ekinci (2015, p. 52) .............................. 35
Figure 18: Comparative analysis of questionnaires - adapted from Ekinci (2015, p. 16) .... 37
Figure 19: Sampling techniques - adapted from Malhotra and Birks (2006, p. 374) .......... 38
Figure 20: Sampling process - adapted from Malhotra and Birks (2006, p. 358) ............... 39
Figure 21: Comparative analysis of data collection methods ........................................... 40
Figure 22: Reliability and validity .................................................................................... 41
Figure 23: Outline implementation programme ............................................................... 87
Figure 24: ‘Six box model’ adapted from Weisbord (1976) .............................................. 91
Figure 25: Diagnostic approach of ‘six box model’ - adapted from Weisbord (1976) ....... 92
Figure 26: Congruence Model - adapted from Nadler et al. (1982, p. 44) ....................... 93
Figure 27: Congruence Model explained - adapted from Nadler, et al. (1982, pp. 39-41) ... 94
Figure 28: Causal Model - adapted from Burke and Litwin (1992, p. 528) ..................... 95
Figure 29: Factors of the Causal Model - adapted from Burke & Litwin (1992) ............... 96
Figure 30: The Honeycomb expanded - adapted from Wilson (2014) ............................ 97
Figure 31: Definition of reflective practice - adapted from Fook, et al (2006, p. 12) .......... 125
Figure 32: Four stages of personal development for managers (Atkinson, 1999) .......... 125
Figure 33: Focus on meta-abilities - adapted from Atkinson ........................................... 126
Figure 34: Explanation of cognitive skills ....................................................................... 127
Figure 35: The reconceptualised framework ................................................................... 132
ABSTRACT

Summary: A performance measurement (PM) system should exemplify an organisation’s activities, so it can learn and adapt based on its assessment (Otley, 1999; Adler, 2011; Agostino & Arnaboldi, 2012).

This paper investigates ‘to what extent NHS performance can be measured’ in the confines of the Accident and Emergency (A&E) department, at East Lancashire Hospitals NHS Trust.

The NHS constitution stipulates ‘95% of patients should be seen and discharged within 4-hours’; hence, this is widely regarded as the ‘key metric’ of A&E performance (The King’s Fund, 2016; NHS England, 2013). Since 2013, performance across all areas of health and social care in England, is externally regulated by the Care Quality Commission (CQC, 2015).

In 2015/16 ELHT’s emergency services treated over 185,000 patients, placing it in the top-twenty busiest units in the country. Unfortunately, its 4-hour target for the same period was 92.5% and its emergency services were classified as ‘requiring improvement’ by the CQC (HSCIC, 2016; CQC, 2014).

Literature relating to performance was critically reviewed, alongside theories of organisational effectiveness (OE). The CQC’s performance regulatory framework was appraised against theoretical models and considered to support PM from an ‘internal process’ perspective (of OE). Conversely, A&E was deemed to align with an ‘open systems’ model i.e. its individuals, groups, processes and interactions are interconnected with the rest of the hospital and the external environment (Stacey & Mowles, 2016).

After evaluating various models of ‘open systems’, key components of A&E performance were aggregated and conceptualised into an appropriate framework. Subsequently, research was undertaken in the practical setting to identify areas for improvement.
**Methods used:** A critical realist research philosophy was applied to a case study design, which incorporated self-completion questionnaires, semi-structured interviews and secondary data collection methods.

**Findings:** Research identified some good practices, particularly in relation to A&E’s internal processes i.e. policies and procedures. Other areas included improvements in competency training and medical device technologies. Staff’s professionalism and sense of purpose to providing exceptional care was also very strong.

This mood was offset by a sense of disengagement from the organisation that echoed through the factors of the conceptual framework, leading to the following recommendations:

- Reinforce vision and values to A&E staff
- Create a bespoke A&E mission statement
- Review A&E leadership structure and training programme
- Budget training for senior A&E clinical staff
- Roll-out of e-Rostering training
- Update of job descriptions against workplace demands
- Review of appraisal process
- Upgrade of IT systems

An area for further research was uncovered relating to producing a standardised ‘A&E coefficient’, which captures all elements of open systems performance, allowing fair comparison for A&E departments across the country.

**Areas covered:** Performance, quality healthcare, organisational effectiveness, performance measurement systems (PMS), open systems theory
CHAPTER 1

Introducing some context and scope for this study
CHAPTER 1: INTRODUCTION

1.1: BACKGROUND

The National Health Service (NHS) was inaugurated in 1948, by Aneurin Bevan - its foundations solidified on three core principles:

- that it meet the needs of everyone
- that it be free at the point of delivery
- that it be based on clinical need, not the ability to pay

(GOV.UK, 2015)

Throughout its evolution, these principles - albeit extended and revised to form the ‘NHS Constitution’ - are still representative of its raison d’être; though, arguably, the benevolent philosophies by which the service was founded, are now overshadowed by accounts of hardship, threats of privatisation and performance management. Despite recurrent “rollercoaster rides of reforms” (Ham, 2014, p. 8), the recent climate of adverse financial and clinical depiction, could be the worse faced by the institution in its (near) 70-year history.

At present, 79% of NHS Trusts are in the red, with an overall deficit of £2.3bn expected by 2015/16 fiscal yearend (Nuffield Trust, 2015; NHE, 2016). These woes are heightened, due to a £20bn ‘cost efficiency savings’ target, set by the government for 2012 to 216 (Hurst & Williams, 2012). It would be safe to assume that simply ‘pumping’ more money into the NHS, is not an option; ‘doing more with less’ is the new modus operandi.

Financial indicators alone, should not be a representation of overall performance (Waggoner, et al., 1999). Nonetheless, recent reports on ‘failings at Mid-Staffordshire NHS Trust’ and ‘persistent outliers of high mortality rates’ respectively, have propelled adverse clinical performance into the media and into public awareness (Francis, 2013; Keogh, 2013).

Consequently, performance in the NHS can be highly-emotive, with the potential to polarise opinions and whether-or-not it meets the needs of everyone, is now the primary theme for debate.
1.2: AREA OF INVESTIGATION

RESEARCH SCOPE

Since the ‘new public sector’ era of the 1990’s, ‘high accountability’ and ‘cost efficiencies’, are benchmarks set by central government to improve NHS performance and better justify taxpayer’s contributions (Brignall & Modell, 2000).

It is widely accepted that performance management and quality improvement are heavily interlinked (Beitsch, 2015). Evaluating performance involves “comparing a performance to a standard”; and setting this standard, in turn, involves setting one or more “cut scores”, by which “performance is judged” (Stufflebeam & Coryn, 2014, p. 18). Likewise, performance management systems should be an embodiment of an organisation’s activities; helping to plan, coordinate and offer indications for corrective action if necessary (Adler, 2011).

The aftermath of these publicised inquiries has undoubtedly caused NHS performance reporting to become more ‘open and transparent’. From 2013, performance across all areas of health and social care in England, is externally regulated by the Care Quality Commission (CQC) - who have introduced their own assessment framework (CQC, 2015). Nowadays, NHS Trusts display their respective ‘CQC ratings’ on their promotional literature and websites alike - accentuating accordingly, depending on classification (CQC, 2016).

About A&E

For this study, focus tapers down to the services of an ‘Accident and Emergency’ (A&E) department, which is considered by central government to be a critical performance indicator (NHS England, 2016).

A&E departments are responsible for facilitating ‘24-7’ emergency care for acutely ill patients (Department of Health, 2013). When patients are unable to gain access into A&E and equally, gain access to a hospital bed after leaving A&E (i.e. patient flow), overcrowding occurs - the terms ‘access block’ and ‘exit block’ describe these conditions respectively (RCEM, 2014). Not only is the general quality of care and patient dignity effected by overcrowding, mortality rates also rise (Silvester, et al., 2014). Furthermore, overcrowding is costly (McHugh, et al., 2011).
Long waiting times compromise patient safety and reduce ‘clinical effectiveness’ of care (NHS England, 2013). The NHS constitution’s operational standard, stipulates ‘95% of patients should be seen and discharged within 4-hours’; hence, this is widely regarded as the ‘key metric’ of A&E performance (The King’s Fund, 2016; NHS England, 2013). Nationally collated statistics, report 19.6million people attended A&E in 2014/15, (an increase of 6% from the previous year); trended data since 2002/3 implies the persistently breached, 4-hour target is in steady decline (NHS England, 2015; HSCIC, 2016).

**Research setting**

This investigation focussed exclusively on the A&E department at East Lancashire Hospitals NHS Trust (ELHT). In the absence of a ‘standard NHS effectiveness model’, a selection of academic theories and perspectives were critically evaluated to explore the elemental factors of performance, before a model for A&E was conceptualised. The CQC’s regulatory framework, was then comparatively analysed against these factors, with the intention of ascertaining if all contributing elements of performance were captured; and if there were areas for improvement and/or further research.

**About ELHT**

East Lancashire Hospitals NHS Trust (ELHT) was established in 2003, when ‘Burnley Healthcare’ and ‘Blackburn, Hyndburn and Ribble Valley’ Trusts integrated their respective services. The Trust employs over 7000 staff and is a specialist centre for Hepatobililiary, Head and Neck and Urological Cancer services. It also offers specialist Cardiology services and is a network provider of ‘Level 3’ Neonatal Intensive Care (BAPM, 2014; ELHT, 2012). Its key commitment is to deliver high quality, ‘safe, personal and effective’ healthcare to the residents of East Lancashire and Blackburn with Darwen, which have a shared population of around 530,000 (ELHT, 2012).

Since November 2010, ‘major illness and injury’ emergency care is delivered at Royal Blackburn Hospital’s A&E department and ‘minor illness and injury’ shared across Urgent Care Centres (UCCs) at Blackburn, Burnley and Accrington (ELHT, 2011). In 2015/16 its emergency services treated over 185,000 patients, placing it in the top-twenty busiest units in the country. Unfortunately, its 4-hour target for the same period was 92.5% and its emergency services were classified as ‘requiring improvement’ by the CQC (HSCIC, 2016; CQC, 2014).
About the author

The author is a professionally registered Healthcare Scientist, working in the Clinical Engineering field (The RCT, 2016; Health Education England, 2016). As department head, duties involve providing leadership and strategic direction in the field of medical device management to ELHT; communicating regularly with a range of stakeholders to offer support on all matters relating to medical equipment.

Joining the Trust in 1995 as an Engineer, the author has extensive experience of the acute NHS hospital environment.

This study was undertaken over a six-month period, with a bilateral purpose. Coinciding with the pre-requisite of completing an Executive MBA, was the author’s ambition to make a difference at ELHT, by applying these newly acquired skills onto a problematic, real-life situation.

Research Question and Objectives

As suggested by Johnson and Harris (2003), the commencement of research in any field starts with a question or problem that in turn underpins philosophies, direction and choices. In this particular instance, it asks:

“To what extent can we measure A&E performance?”

To facilitate research, the following objectives were applied:

1. Critically evaluate academic models of ‘organisational effectiveness’ and ‘performance measurement’ - identifying linkages and key components, which contribute towards A&E performance measurement

2. Rigorously analyse whether ELHT, the CQC regulatory framework and 4-hour national targets account for all these contributing factors when measuring A&E performance
CHAPTER 2

Appraising various different sources of information, and conceptualising to gain an understanding of the subject matter
CHAPTER 2: LITERATURE REVIEW

INTRODUCTION

Given the impassioned undertones of the subject and its importance to the author, conducting a comprehensive literature review to ascertain ‘proof-of-knowledge’ into the problem is the heart-line of this paper (Randolph, 2009). Condensing a multifaceted topic such as A&E performance is challenging. Therefore, by sequentially directing channels of enquiry, the author will seek to gain methodological insight into demarcating the research problem (Cooper, 1988; Gall, et al., 2006):

1. Defining performance and understanding what this means in healthcare
2. Gaining an insight into factors of performance and how these are measured by CQC
3. Defining organisational effectiveness and modelling the A&E department
4. Comparing stages 2 & 3, identifying any gaps, before conceptualising into a framework

Figure 1: Methodical review of the literature
2.1: THE CONCEPT OF PERFORMANCE

The term ‘performance’ is recognised as being indistinct and without simplified definition (Otley, 1999). Nevertheless, the idea of performance measurement and subsequent management, are essential components accepted by organisations worldwide (Hoque, 2010; Salem, 2003). The challenge facing today’s managers is maintaining optimum performance in an ever-changing workplace and global economy (Al-Khouri, 2010). In response, academics and theorists have assembled a plethora of tools to evaluate organisational performance (Martz, 2013). The 1990’s saw an upsurge in the topic; especially its linkages to embedding corporate strategy throughout an organisation (Neely, 1999; Kaplan & Norton, 1996; Labovitz & Rozansky, 1997; Bourne, et al., 2000; Adler, 2011). As per many private-sector firms, the NHS was also awakening to such ideologies - as analysing key metrics would provide evidence for decision-makers to enhance quality of care and public accountability (Gallani, et al., 2015; Strome, 2013). Similarly, Patel, et al. (2006), state PM systems assist under-pressure NHS managers to maintain effective levels of performance, whilst juggling limited staff and resources.

If an organisation’s ‘effectiveness’ (or ‘dynamism’), is regarded as a conduit for success, sustainability and ultimately, survival (Verma, 2012; Iwu, et al., 2015) - then performance measurement becomes its gauge, representing the achievement of organisational tasks against predetermined standards (Wadongo & Abdel-Kader, 2014). Folan and Browne (2005), expand this to propose organisational performance as being the relationship between performance measuring (PM), by means of performance indicators (PIs) or metrics, within a performance measurement framework (PMF); all of which, is fundamental for businesses to improve processes, capabilities and profitability. When two or more PM frameworks are combined - one structural, one procedural - a ‘performance measurement system’ (PMS) is formed, which customarily utilises software, databases and valid procedures to facilitate clear and accurate PM (Lohman, et al., 2004).

Conversely, Ferreira and Otley (2009), argue the complexities of PM - when simplified into a strategically misaligned system - causes conflicting results and ambiguity. In healthcare, this is supported by Patel, et al. (2006), who claim ‘lack of knowledge’ on such systems by administrating managers, and ‘lack of causal effect’ between indicators, adds to this confusion.
Regardless of the specific type of PM system an organisation adopts to evaluate its success, it is imperative that its critical components are setting ‘key performance measures’ and appropriate ‘targets’ that are derived from organisational objectives (Otley, 1999; Stringer, 2007).

For NHS performance, the overarching element of any PM system, is to safeguard the delivery of cost-effective, ‘quality healthcare’ (NHS England, 2016), which becomes heightened in an increasingly complex, public milieu (OECD, 2010).

When asked about specifying quality, Thomas Pyzdek (1990), suggested, even proclaimed experts in this field could not agree upon a standard definition. A significant shift in healthcare occurred since the 1980s, where terms and standards of quality previously defined by caregivers, gave way to a more ‘patient-centred’ characterisation (Carey & Lloyd, 2001).

Maxwell (1984; 1992), stresses the importance of adopting a multi-dimensional approach to quality of care, identifying six dimensions:

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Questions that help expand the label “quality”</th>
</tr>
</thead>
<tbody>
<tr>
<td>Effectiveness:</td>
<td>Is the treatment given, the best available (in a technical sense), according to those best equipped to judge? What is their evidence? What is the overall result of the treatment?</td>
</tr>
<tr>
<td>Acceptability:</td>
<td>How humanely and considerately is this treatment/service delivered? What does the patient think of it? What would/does an observant third party think of it (“How would I feel if it were my nearest and dearest?”) What is the setting like? Are privacy and confidentiality safeguarded?</td>
</tr>
<tr>
<td>Efficiency:</td>
<td>Is the output maximised for a given input or (conversely) is the input minimised for a given level of output? How does the unit cost compare with the unit cost elsewhere for the same treatment/service?</td>
</tr>
<tr>
<td>Access:</td>
<td>Can people get this treatment/service when they need it? Are there any identifiable barriers to service - for example, distance, inability to pay, waiting lists, and waiting times - or straightforward breakdowns in supply?</td>
</tr>
<tr>
<td>Equity:</td>
<td>Is this patient or group of patients being fairly treated relative to others? Are there any identifiable failings in equity - for example, are some people being dealt with less favourably or less appropriately in their own eyes than others?</td>
</tr>
<tr>
<td>Relevance:</td>
<td>Is the overall pattern and balance of services the best that could be achieved, taking account of the needs and wants of the population as a whole?</td>
</tr>
</tbody>
</table>

Figure 2: Six dimensions of quality healthcare - adapted from Maxwell (1992, p. 171)
Both the CQC and NHS refer to quality care as combining ‘safe, effective, caring, responsive and well-led’, with a ‘good patient experience’ (CQC, 2016). Singh and Singh (2014), infer quality healthcare as being a ‘total, systematic characteristic’. They continue in a similar vein to Maxwell, the NHS and CQC, but imply eight dimensions make up their system - adding ‘equity’ and ‘continuity-of-care’ into the mix.

Figure 3, illustrates a culmination of these dimensions, which was created in partnership with Clinical Directors and Care Commissioners, and encapsulates the modern NHS’ mission; its ‘definitions of quality’; and how its ‘success will be measured’ - all of which, should transpose across every NHS establishment in England (NHS England, 2016).

These dimensions allow care providers to be suitably incentivised and equally, allows access to formal performance assessments of care - a belief internationally supported by umbrella organisations like the World Health Organisation (WHO) and Organisation for Economic Cooperation and Development (OECD) (Aarah, et al., 2003; 2006).
The message is very similar in the commercial world too; as categorised by Zeithaml, et al. (1990) - who originally constituted ‘service quality’ (within their ‘SERVQUAL’ framework), as having ten dimensions; before fine-tuning these to just five. Although indicators appear to be related, Cook and Faberowski (2004, p. 743), argue industrial techniques for quality management, when applied to healthcare, have been “somewhat elusive”.

<table>
<thead>
<tr>
<th>DIMENSION</th>
<th>DEFINITION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tangibles</td>
<td>Appearance of physical facilities, equipment, personnel and materials</td>
</tr>
<tr>
<td>Reliability</td>
<td>Ability to perform the promised service dependably and accurately</td>
</tr>
<tr>
<td>Responsiveness</td>
<td>Willingness to help customers and provide a prompt service</td>
</tr>
<tr>
<td>Competence</td>
<td>Possession of the required skills and knowledge to perform the service</td>
</tr>
<tr>
<td>Courtesy</td>
<td>Politeness, respect, consideration and friendliness of service personnel</td>
</tr>
<tr>
<td>Credibility</td>
<td>Trustworthiness, believability, honesty of the service provider</td>
</tr>
<tr>
<td>Security</td>
<td>Freedom from danger, risk, or doubt</td>
</tr>
<tr>
<td>Access</td>
<td>Approachability and ease of contact</td>
</tr>
<tr>
<td>Communication</td>
<td>Keeping customers informed in language the can understand and listening</td>
</tr>
<tr>
<td>Understanding</td>
<td>Making the effort to know customers and their needs</td>
</tr>
</tbody>
</table>

Figure 4: ‘10-dimension of SERVQUAL’ - adapted from Zeithaml, et al. (1990, pp. 21-22)

<table>
<thead>
<tr>
<th>DIMENSION</th>
<th>DEFINITION</th>
<th>CORRELATION TO HEALTH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tangibles</td>
<td>Appearance of physical facilities, equipment, personnel and materials</td>
<td>Acceptability</td>
</tr>
<tr>
<td>Reliability</td>
<td>Ability to perform the promised service dependably and accurately</td>
<td>Relevance, effectiveness,</td>
</tr>
<tr>
<td>Responsiveness</td>
<td>Willingness to help customers and provide a prompt service</td>
<td>Responsive, well-led,</td>
</tr>
<tr>
<td>Assurance</td>
<td>Knowledge and courtesy of employees and their ability to convey trust and confidence</td>
<td>Safe, equity</td>
</tr>
<tr>
<td>Empathy</td>
<td>Caring individualised attention, the firm provides its customer</td>
<td>Caring, patient experience</td>
</tr>
</tbody>
</table>

Figure 5: ‘5-dimensions of SERVQUAL’ with links to health (Zeithaml, et al., 1990, p. 26)

SECTION SUMMARY

With an outline of performance and evident dimensions of quality healthcare established, the next stage is to explore how NHS performance is regulated by the Care Quality Commission.
2.2: MEASURING PERFORMANCE

The principal function of performance measurement (PM), is to support decision-making by timely delivery of dependable information - strategic PM relates to an organisation’s long-term vision; and operational, or applied PM covers departments, processes, teams, and individuals (Ukko, et al., 2007). Although there are contrasting opinions on embedding performance measurement systems (PMS) into an organisation, particularly surrounding culture and leadership (i.e. does the PMS affect the style of management and the individual, or vice versa) - the general consensus is: PMS’ are pivotal in aligning strategic and operational objectives to the behaviour and attitudes of individuals - then changing these accordingly (Neely, et al., 1997; Martinez, 2005; Ukko, et al., 2007). Thus, underlining the value of adopting and correctly implementing the ‘best-fit’ PMS to ensure data is turned into useful and useable information (Evans, 2004).

The Balanced Scorecard

Kaplan and Norton propose “what you measure is what you get”. They also posit the view that ‘measurement’ has been a central function of ‘management’ since the early 20th century - when Frederick Taylor’s conception of ‘Scientific Management’, studied ‘optimum time versus output’ capacity of workers (Kaplan & Norton, 1992, p. 71; 2003). Their ‘Balanced Scorecard’ (BSC) approach, validates performance, by means of asking four essential questions, via four perspectives (Kaplan & Norton, 1992). The popularity of the BSC is widespread; with industry, businesses, governments, and (until the CQC) the NHS embracing it as both a strategic planning tool and PMS (Grigoroudis, et al., 2012; NHS Institute for Improvement and Innovation, 2013).

Opponents argue the BSC is conceptually and practically flawed i.e. the design of its indicators (perspectives) are too broad, not universally relevant, and (because of no measuring units) lacking control - which effectively, represent key mechanisms for managers and PM (Awadallah & Allam, 2015; Kopecka, 2015; Neely, et al., 2008).

This sentiment is echoed in healthcare by Patel, et al. (2006), who also debate a lack of publications and guidance - either academically or from the government - on causality between perspectives, makes it difficult to apply the BSC to the NHS’ complex operating dynamics.
THE CQC PERFORMANCE FRAMEWORK

Since 2013, the CQC’s PM framework has replaced the BSC as the NHS’ overarching PMS. In the absence of academic critique, the author alludes to its analogous approach to the BSC’s ‘setting of perspectives’ and ‘asking relevant questions’ within these perspectives (CQC, 2016). The major difference being, the CQC’s PM framework is crafted singularly for regulating the quality of health and social care. Their literature suggests:

To get to the heart of people’s experiences of care, the focus of our inspections is on the quality and safety of services, based on the things that matter to people. We always ask the following five questions of services:

- Are they safe?
- Are they effective?
- Are they caring?
- Are they responsive to people’s needs?
- Are they well-led?

(CQC, 2015, p. 8)

Formulation of ‘ratings’ are accomplished using ‘intelligent monitoring’ (CQC, 2015), based on the following dimensions:

<table>
<thead>
<tr>
<th>DIMENSION</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>SAFE</td>
<td>By safe, we mean that people are protected from abuse and avoidable harm</td>
</tr>
<tr>
<td>KLOEs: S1 to S5</td>
<td></td>
</tr>
<tr>
<td>EFFECTIVE</td>
<td>By effective, we mean that people’s care, treatment and support achieves good outcomes, promotes a good quality of life and is based on the best available evidence</td>
</tr>
<tr>
<td>KLOEs: E1 to E6</td>
<td></td>
</tr>
<tr>
<td>CARING</td>
<td>By caring, we mean that staff involve and treat people with compassion, kindness, dignity and respect</td>
</tr>
<tr>
<td>KLOEs: C1 to C3</td>
<td></td>
</tr>
<tr>
<td>RESPONSIVE</td>
<td>By responsive, we mean that services are organised so that they meet people’s needs</td>
</tr>
<tr>
<td>KLOEs: R1 to R4</td>
<td></td>
</tr>
<tr>
<td>WELL-LED</td>
<td>By well-led, we mean that the leadership, management and governance of the organisation assures the delivery of high-quality, person-centred care, supports learning and innovation, and promotes an open and fair culture</td>
</tr>
<tr>
<td>KLOEs: W1 to W5</td>
<td></td>
</tr>
</tbody>
</table>

Within each dimension, there are a subset of pertinent questions, or ‘key lines of enquiry’ (KLOE), specific to individual areas of an acute NHS Trust; these are representative of its PM (CQC, 2015, p. appendices). It is worth noting, the dimensions (and subsequent KLOEs) are not too dissimilar from those previously mentioned by Maxwell, Singh and Singh, and Zeithaml, et al.
Conforming to the framework above, the CQC inspects all core services of the NHS using the following methods:

- Gathering the views of people who use services and from staff
- Observing care and individual care pathways.
- Reviewing records and looking at documents and policies
- Inspecting the places where people are cared for.

Once the necessary information is gathered, a “credible, comparable rating” is given to the respective organisation ranging from ‘inadequate’ to ‘excellent’ (CQC, 2015; 2015). The framework used for critical review and pertinent to A&E, is “20151125 900973 NHS core service inspection framework urgent and emergency services v1.04” (CQC, 2015).
2.3: MODELLING PERFORMANCE

The NHS is continually responding to the demands of society when designing the delivery of responsive services (Fulop, et al., 2001). This inexorable need to efficiently manage resources and demonstrate accountability, ensures ‘performance’ is the bedrock of ‘organisational effectiveness’ (OE) (Martz, 2013). Varying literature on conceptualisation and measurement of OE is contradictory and inconclusive (Rahim, 2001; Iwu, et al., 2015). However, both literature and empirical evidence support the notion that a valuable PMS, must wholly represent the characteristics of an organisation, in order to effectively measure its ability to deliver strategic and operational objectives (Otley, 1999; Agostino & Arnaboldi, 2012).

After critiquing four extant perspectives of OE: ‘Goal’, ‘Open Systems’, ‘Internal Processes’ and ‘Strategic Constituencies’ (see appendix 1), two points became noticeable:

1. the most suitable OE model for A&E, is ‘open systems’; and
2. due to the lack of consideration for ‘inputs’, the CQC framework was consistent to measuring ‘internal processes’ not open systems, (see figure 11).

The next stages of the literature review will elaborate these points.

MAPPING THE A&E DEPARTMENT

A&E departments are complex, with detailed linkages to many internal, organisational components, combined with significant external interaction (Cawsey, et al., 2015). The most important differentiator to the other perspectives is A&E’s interaction with the environment. Daft (2013), describes this as an influential function of an ‘open systems perspective’.

Starnes (2008), continues, by stating the strategic importance of “acquiring inputs from the environment, transforming them in some way, and discharging them back into the environment”, which also (inadvertently), describes the patient’s journey through A&E (RCEM, 2014). By considering external, environmental factors, open systems are adept at viewing organisations ‘as-a-whole’ - a prominent feature both strategically and operationally (Wheatley, 2006).
An evaluative summary of the four models of OE to identify A&E’s ‘best-fit’:

<table>
<thead>
<tr>
<th>Perspective</th>
<th>Presuppositions</th>
<th>Strengths</th>
<th>Weaknesses</th>
<th>Examples/Research</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Goal</strong></td>
<td>- Organisations are rational, deliberate and goal seeking</td>
<td>- Goals are accepted as part of organisational culture and design</td>
<td>- Preference is given to values and not others i.e. ‘narrow value premise’</td>
<td><strong>Criterion model</strong> (Wallace, 1965; Blum &amp; Naylor, 1968)</td>
</tr>
<tr>
<td></td>
<td>- Goals are specific, measurable, operative and meaningful</td>
<td>- Alignment with purpose and strategy provides legitimacy for evaluating performance</td>
<td>- Partial completion of goals, shared outcomes and conflicting, multiple goals presents challenges for measurement</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Goals reflect outcomes and are different to constraints</td>
<td>- Summative conclusion based on organisational activity</td>
<td>- Side effects and side impacts cannot be measures within goals</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Goal attainment is the organisation’s primary criterion</td>
<td></td>
<td></td>
<td><strong>Behavioural objectives approach</strong> (Gagné, 1962; Briggs, 1968)</td>
</tr>
<tr>
<td><strong>Open Systems</strong></td>
<td>- Organisations are natural or open systems that interact with the environment</td>
<td>- Incorporates means and ends; processes, outputs and outcomes</td>
<td>- Concentrating on maximising efficiencies of subsystems, may lead to ‘myopic’, inward-focused organisations</td>
<td><strong>Management by objectives</strong> (Drucker, 1985)</td>
</tr>
<tr>
<td></td>
<td>- System boundaries can be identified</td>
<td>- Focuses on balance of resources and sustainability; growth and survival</td>
<td>- Potential neglect of primary beneficiaries when they are not explicitly part of a system</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- A clear connection is present between the organisation’s inputs and outputs</td>
<td>- Considers the performance if subsystems that contribute to overall performance</td>
<td>- External factors not specifically addressed may cause false, or inaccurate measurement</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- The successful acquisition of scarce and valued resources suggests an effective organisation</td>
<td>- Can be applied to networked and loosely coupled organisations</td>
<td></td>
<td><strong>Six Box model</strong> (Weisbord, 1976)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td><strong>Congruence model</strong> (Nadler, et al., 1980)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td><strong>Causal model</strong> (Burke &amp; Litwin, 1992)</td>
</tr>
<tr>
<td>Perspective</td>
<td>Presuppositions</td>
<td>Strengths</td>
<td>Weaknesses</td>
<td>Examples/Research</td>
</tr>
<tr>
<td>----------------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
</tbody>
</table>
| Internal Processes   | • Organisations are rational, goal-seeking and constrained by environmental realities  
  • Organisational and employee goals are in harmony  
  • Managers have the flexibility to allocate program resources  
  • Causal linkages can be made between internal processes  
  • Goal optimisation is the primary criterion for performance | • Incorporates means and ends; processes, outputs and outcomes  
  • Considers the performance if subsystems that contribute to overall performance  
  • Recognises constraints and their impact on goal achievement  
  • Incorporates differential weighting of goals based on identified constraints  
  • Can be utilised for formative and summative evaluations | • Does not specifically address external forces beyond management control  
  • Emphasis on internal processes may distract from macro-environmental changes that make the organisation relevant  
  • Partial completion of goals, shared outcomes and conflicting, multiple goals presents challenges for measurement  
  • Criterion instability and importance weighting agreement can present measurement challenges | McKinsey '7S' (Waterman, et al., 1980)  
  Total quality management (Deming, 1988)  
  Business process management (Hammer & Champy, 2001) |
| Strategic constituencies | • Organisations are natural or open systems where participants with varying degrees of power vie for control over resources  
  • Constituencies can be identified and ranked; preferences of a specific constituency serve as a primary value source  
  • A high-performing organisation is one that satisfies the demand of its constituencies; survival being ultimate | • Focuses on the concerns of those who have most impact, or ensure survival  
  • Recognises multiple stakeholders and criteria is derived from preference of these stakeholders  
  • Promotes organisational legitimacy and participation | • Tend to favour the most powerful and influential stakeholders within the organisation  
  • An organisation can be found to be high-performing even without possessing any competitive advantage  
  • Separating strategic constituencies from the larger environment poses considerable challenges | Stakeholder framework (Freeman, 2010)  
  Performance prism (Neely, et al., 2002) |

Figure 8: Comparing models of OE - adapted from Martz (2013, pp. 394-395)
AN OPEN SYSTEMS PERSPECTIVE

Open systems are identified by three distinct, interrelating elements:

1. **Input**: how the external environment affects the organisation
2. **Throughput**: everything that happens in the organisation; and
3. **Output**: what the organisation produces

Burke and Litwin (1992) simplify these as:

- **Input**: how the external environment affects the organisation
- **Throughput**: everything that happens in the organisation; and
- **Output**: what the organisation produces

Further properties of an open-systems perspective, state that it…:

- exchanges information, material, and energy with their environment. As such, a system interacts with and is not isolated from its environment
- is the product of its interrelated and interdependent parts and represents a complex set of interrelationships, rather than a chain of linear, cause-effect relationships?
- seeks equilibrium, and one that is in equilibrium will change only if some energy is applied.
- may have individuals within a system whose views of its function and purpose differ greatly from the views held by others
- views occurrences within and/or to open systems (such as issues, events, forces), not in isolation, but as interconnected, interdependent components of a complex system.

Figure 9: ‘Open systems perspective’ - adapted from Burke & Litwin (1992)

Figure 10: Assumptions of open systems - adapted from Cawsey, et al. (2015)
OPEN SYSTEMS THEMES AND COMPONENTS

The ‘Six Box’, ‘Congruence’ and ‘Causal’ models are currently used by the NHS to shape OE (NHS NW Leadership Academy, 2016). Although these are relatively dated, they are still functional to establish common performance factors of ‘open systems’ organisations (see appendix 2). To make juxtaposition against the CQC framework easier, the author has accumulated five conventional OE themes from these models (see figure 11), and their applicability to A&E:

1. Vision, mission and values

Mirvis, et al. (2010), claim these underlying components of OE guide the organisation and offer purpose for its employees; they adapt Peter Senge’s (1990) ideas, to simplify (from an organisational perspective) each as:

- **Vision**: is the ‘what’ i.e. the picture of the future we seek to create
- **Mission**: is the ‘why’ i.e. the organisation’s answer to why we exist (purpose)
- **Values**: are the ‘how’ i.e. how we act to achieve our vision

(Mirvis, et al., 2010, p. 317)

The above components are impracticable if the organisation cannot define specific objectives to fulfil them, and convey these throughout its workforce; hence, the importance of a cohesive strategy (Raynor, 1998). A&E takes its overarching vision, mission and values from the NHS constitution, when striving to deliver “health and high quality care for all, now and future generations” (NHS England, 2016, p. 4). More technical details relating to ‘standards of care’ are also comprehensively covered by the National Institute for Health and Care Excellence (NICE, 2012).

2. Leadership and Culture

Leadership is a multi-faceted, complex and highly-regarded commodity (Northouse, 2012). Evidence also supports the positive effects of transformational leadership behaviour on organisational performance (Katou, 2015). Strong leadership, is necessary to traverse organisational culture, which Edgar Schein (2010, p. 7) describes as abstract, yet producing “powerful forces outside our awareness”. Moreover, Aguinis, et al. (2012, p. 385), assert culture should always be considered as “context congruent” in performance management.
Deficient NHS leadership and silo cultures were exposed (together with catastrophic consequences) in the aforementioned public enquiries. As a result, considerable resources have been allocated towards developing its leaders, and their competencies towards promoting an institution-wide, ‘collaborative’ culture (sharing information and decision-making), to sustain patient-centred, high-quality care (NHS Leadership Academy, 2015; Snow, 2015; West, et al., 2015).

3. Work environment and management systems

Robert Anthony (1965; 1988), referred to this feature of OE, as how managers effectually manipulate resources to execute the organisation’s strategy. In short, optimum design and integration of these management ‘systems’ - i.e. policies, procedures, budgetary processes, technology, and flow of information - ensures optimal management ‘control’; understandably, it is here, where a large portion of PMS’ focus their attention (Ferreira & Otley, 2009; Zanibbi, 2011).

The work environment is a crucial for the caregiver to operate effectively and an integral part of the patient experience. It should be safe, to prevent harm; clean, to prevent infections; and equipment should in good condition and maintained correctly (NHS Choices, 2014; NHS England, 2016). Medical devices deploy some of the most advanced technology available, which undoubtedly improves patient outcomes; despite this, the NHS’ adaptation of the latest technologies, has known to be sluggish and indifferent between Trusts (Liddell, et al., 2008). A ‘systems thinking’ approach, using Information Management and Technology (IM&T), i.e. electronic records, prescribing and Decision Support Systems (DSS), enhance performance by streamlining the constant flow of information to the caregiver’s fingertips (Senge, 1990; Gupta & Malik, 2005; Brown, et al., 2012).

Alongside principal operational policies and procedures, A&E’s systems and control mechanisms, focus on the minutiae of ‘care administration’ and are cross-referenced to numerous, national clinical policies and guidelines. The NHS’ ‘safety thermometer’, ‘duty of candour’, and recommendations by the Royal College of Emergency Medicine are just some of these (NHS Quality Observatory, 2013; CQC, 2015; RCEM, 2016). Likewise, ‘clinical governance’ is a pivotal framework (for staff and patients) to collectively monitor quality care, covering: education, training, risk management, audits, complaints, evidence-based practice and, research and development (Gottwald & Lansdown, 2014, p. 13).
4. Human Resource Management (HRM)

There have been many studies on the relationship between people management and performance output. According to Abraham Maslow, “human potential is the primary source of competitive advantage in almost every industry” (Maslow, 1998, p. xv). In 2003, the Chartered Institute of Personnel and Development (CIPD) published their ‘black box’ research into this subject - which (without claiming to fully understand causation) uncovered strong evidence linking robust, synchronised HRM (i.e. job design, training, competencies, motivation, and rewards etc.), to positive influences on organisational performance (Purcell, et al., 2003; Hutchinson, 2013; Katou, 2008).

Boyatzis (1982; 2008, p. 6), defines competency as “capability or ability”, and believes individual performance improves, once aligned with job design and demands of the workplace. Motivation arises from an individual’s needs; and organisations should encourage satisfaction of these needs, to stimulate the individual to perform (Maslow, 1998; Karami, et al., 2013). Rewards systems, if properly conceived, also increase productivity - especially when incentives are specifically coupled to individual needs (Yinghong, et al., 2012; Karami, et al., 2013).

Staff commitment (as written in the NHS Constitution), combined with annual, Personal Development Reviews (PDRs); a Knowledge and Skills Framework (KSF); and (where applicable) Continuous Professional Development (CPD), should account for A&E staff’s HRM needs (Department of Health, 2013; NHS Employers, 2015; 2016). A dedicated NHS workforce, is not usually concerned with bonuses and perks (Bullas & Ariotti, 2002); however, studies have recognised motivated and engaged staff, improve patient experience and outcomes (Maben, 2013).

5. External/environmental influences

Described by Martz (2013, p. 389), as “forces beyond management’s control that can impact the organisation”, this last section covers external, environmental factors of an ‘open system’ model. Whilst designing their modified version of the ‘causal model’, Spangenberg and Theron (2013) debated these factors in a spherical context, surrounding the entire model. In A&E’s case, the majority of external factors affect its input, and are relative to patients who present themselves in A&E i.e. the social elements of healthcare.
Since the 1980’s, a compounded view of health recognised the impact of its “social determinants” i.e. “the economic, political, social conditions under which people live and which determine their health” (Larkin, 2011, p. 6). An overview of these and other, environmental elements are as follows:

a. **Age of the local population**: the elderly and the very young are at higher risk for emergency care (Purdy, 2010).

b. **Ethnicity of the local population**: emergency admissions rates are increased for individuals from ‘minority ethnic’ backgrounds (Moudgil, et al., 2000).

c. **Socioeconomic deprivation**: higher demand for emergency services has been concentrated in areas of socioeconomic deprivation (Hull, et al., 1997; Purdy, 2010; Scantlebury, et al., 2015).

d. **Comorbidity**: refers to ‘multiple-illnesses’ with increased clinical and financial consequences (Valderas, et al., 2009). The Department of Health (2014, p. 6) states comorbidity “is one of the most important issues facing health systems in the developed world” and categorises it as:
   i. Clinically dominant: where one illness overshadows another;
   ii. Synergistic: linking causality and treatment; and
   iii. Coincidental: no obvious relationship and separate management.

e. **Residential area**: rural communities have lower rates of emergency admissions than inner-cities (Purdy, 2010). Also, geographic locality to A&E departments (combined with factors like access to transport) effects admission rates and patient-condition on arrival (Comber, et al., 2011).

f. **Environmental conditions**: adverse weather conditions and air pollution have changeable effects across patient diseases such as respiratory conditions and coronary heart disease; which ultimately increases demand on A&E (Marno, et al., 2006; Maheswaran, et al., 2005; Purdy, 2010).

g. **Inappropriate admission**: people thinking they require emergency care and attend A&E unnecessarily, when they could be treated elsewhere and/or leave without requiring any treatment (The King’s Fund, 2016; Blunt, et al., 2015).

The author instigated an in-depth critique of the CQC’s KLOE for A&E, in comparison to the academic models mentioned earlier. Figure 11 condenses this, reinforcing the viewpoint that ‘inputs’ (along with additional highlighted factors) are not accounted within the boundaries of the current PMS.
<table>
<thead>
<tr>
<th>Generic outline</th>
<th>‘Six Box’ Model reference</th>
<th>‘Congruence’ Model reference</th>
<th>‘Causal’ Model reference</th>
<th>Relates to</th>
<th>Coverage by CQC’s PM framework and KLOEs for A&amp;E</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vision, mission and values</td>
<td>• Purpose</td>
<td>• Strategy</td>
<td>• Mission and strategy</td>
<td>The organisation’s purpose and what it wants to achieve</td>
<td>• C1, C2 and C3: compassionate, quality healthcare</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• R2, R3: Access of services to all, including the vulnerable</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• W1: organisational strategy</td>
</tr>
<tr>
<td>Culture and Leadership</td>
<td>• Leadership</td>
<td>• History</td>
<td>• Culture</td>
<td>How the organisation achieves its objectives</td>
<td>• W3, W4 and W4: exploration of leader’s knowledge, openness and transparency; engagement with staff and public; and innovation, learning and sustainability</td>
</tr>
<tr>
<td>Work environment, management systems and control</td>
<td>• Helpful mechanisms</td>
<td>• Resources</td>
<td>• Management practices</td>
<td>How the organisation performs its tasks</td>
<td>• S4, S5: operational procedures, staffing-levels, skill-mix and major incidents</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Formal organisation</td>
<td>• Systems</td>
<td></td>
<td>• W2: Clinical Governance, internal audits and information sharing</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Work-unit climate</td>
<td></td>
<td>• S1-S4: E1, E2, E6; S3: safe administration of care, reducing patient risk and monitoring care outcomes</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• S3: Patient environment (cleanliness, facilities etc.)</td>
</tr>
<tr>
<td>Human resource management</td>
<td>• Relationships</td>
<td>• Task</td>
<td>• Structure</td>
<td>The way the organisation manages its workforce</td>
<td>• E3: knowledge of staff to deliver effective care</td>
</tr>
<tr>
<td></td>
<td>• Rewards</td>
<td>• Individual</td>
<td>• Tasks and individual skills</td>
<td></td>
<td>• E4: team building and relationships</td>
</tr>
<tr>
<td></td>
<td>• Structure</td>
<td>• Formal organisation</td>
<td>• Individual needs</td>
<td></td>
<td>• No specific linkages to Individual needs and motivation</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Motivation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>External influences</td>
<td>• Environment</td>
<td>• Environment</td>
<td>• External environment</td>
<td>Any external factors affecting the organisation’s ability to perform</td>
<td>• No specific linkages to any external influencing factors</td>
</tr>
</tbody>
</table>

Figure 11: Analysis of three ‘open systems’ models and the CQC framework
2.4: CONCEPTUAL FRAMEWORK

CONSTRUCTING THE FRAMEWORK

The literature review has provided enough material to understand, key factors that substantiate the research problem; which in turn, provides a sound theoretical foundation (Levy & Ellis, 2006; Bordage, 2009). In conjunction with literature, the author will look to construct a ‘lens’, or ‘set of lenses’ in an attempt to simplify the complexity of A&E’s OE and PM within a ‘Conceptual Framework’ (CF) - this is fundamental to explore and develop these theoretical ideas (Ravitch & Riggan, 2011; Connelly, 2014).

Figure 25, represents a culmination of theories, perspectives and models from literature, to demarcate a typical A&E setting:

Accepting the ‘standardised output’ for A&E is quality care (as stipulated in the CQC framework for A&E), delivered in $\leq 4$-hours of the patient being admitted to being discharged, this model will now be conceptualised (Mintzberg, 1978; CQC, 2015).
Figure 13: The conceptual framework

- **INPUT**
  - Patient indicators:
    - Age
    - Ethnicity
    - Socioeconomic
    - Comorbidity
    - Residential area
    - Environmental conditions
    - Inappropriate admissions

- **THROUGHPUT**
  - Human Resource Management
  - Work environment & management systems
  - Leadership & Culture
  - Vision, mission & values

- **OUTPUT**
  - Performance output (C) = Factors of A (input) + Factors of B (throughput)

- **FLOW**
  - FLOW ≤ 4-hours

- **DISCHARGE or hospital admission**
The conceptual framework (CF), contours the A&E department within an open systems model to show interlinked concepts i.e. relationship between input, throughput and output (Jabareen, 2009):

**Part A (input):** exhibits congruent environmental indicators of patients coming to A&E. As per any open systems model, these inputs represent the ‘external energies’, which have significant bearing on performance (Martz, 2013).

**Part B (throughput):** the organisation’s ‘energy conversion unit’ (Katz & Kahn, 1978), incorporating the systems, subsystems and activities needed for productivity (Mintzberg, 1978). This area also holds the majority of ‘measurable components’, hence the focus of A&E’s PM (Otley, 1999; Martz, 2013).

**Part C (output):** is the product of parts A and B, which for A&E (because the performance characteristic is predefined), conforms to Henry Mintzberg’s principle of being a ‘standardised output’ i.e. the patient is either admitted to hospital, or sent home within 4-hours; and given the appropriate quality of care (Mintzberg, 1978).

Lastly, the ‘flow’ of patients through A&E (patient’s journey), is tantamount to Mintzberg’s “operating work flow”, i.e. symbolic representation of an organisation’s “input, processing and output functions”, (Mintzberg, 1978, p. 38).

**CHAPTER SUMMARY**

Literature has drawn attention to theories of performance in general and in a healthcare context. The CQC’s performance regulatory framework was appraised against these theoretical models and considered to support PM from an ‘internal process’ perspective, due to not taking into account any ‘inputs’. Conversely, A&E was deemed to align with an ‘open systems’ organisation. The CF elaborated this notion, bringing together all contributing factors of A&E performance - thus accomplishing objective one.

Research will now concentrate on objective two, where the factors of the CF will be investigated for application and relevancy of A&E’s performance measurement in an applied setting.

Chapter 3, determines the appropriate research methodology to enable this.
CHAPTER 3

Discussion and justification of the philosophy, strategy and methodology used for this study
CHAPTER 3: RESEARCH METHODOLOGY

INTRODUCTION

Investigating key factors of NHS performance, meant facilitating effective processing of these issues; adopting appropriate research methods, ensured the accurate provision of the information (Zikmund, et al., 2013). Additionally, it aided the overall understanding and “purpose of the project as a whole” (Vassallo, 2004, p. 277).

In order to formulate the correct, holistic approach, Wilson's (2014, p. 8) ‘Honeycomb of Research’ was adopted as a three-dimensional, ‘methodology’ framework to explain some of the theory behind the individual components of social science research:

![Image: The Honeycomb of Research Methodology](image.jpg)

Figure 14: ‘The Honeycomb of Research Methodology’ - adapted from Wilson (2014)

Within this framework, there are two important relationships between the first three (ideological) and last three (practical) components (Wilson, 2014). The framework, (expanded upon in [appendix 3](#)), also forms a template for this chapter.
3.1: RESEARCH PHILOSOPHY

To identify the appropriate research philosophy, it is important to recognise how each one ties-in with a researcher's outlook on society, science and their research objectives (Saunders, et al., 2009; Burrell & Morgan, 1979; Johnson & Clark, 2006):

<table>
<thead>
<tr>
<th></th>
<th>POSITIVISM</th>
<th>REALISM</th>
<th>INTERPRETIVISM</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Epistemology:</strong></td>
<td>Only observable phenomena can provide credible data, facts. Focus on causality and law like generalisations, reducing phenomena to simplest elements</td>
<td>Observable phenomena provide credible data, facts. Insufficient data means inaccuracies in sensations (direct realism). Alternatively, phenomena create sensations which can be misinterpreted (critical realism). Focus is on explaining within a context(s)</td>
<td>Subjective meanings and social phenomena. Focus upon the details of situation, a reality behind these details, subjective meanings motivating actions</td>
</tr>
<tr>
<td><strong>Ontology:</strong></td>
<td>External, objective and independent of social actors</td>
<td>Is objective. Exists independently of human thoughts and beliefs or knowledge of their existence (direct realist), but is interpreted through social conditioning (critical realist)</td>
<td>Socially constructed, subjective, may change, multiple</td>
</tr>
<tr>
<td><strong>Axiology:</strong></td>
<td>Research is undertaken in a value-free way, the researcher is independent of the data and maintains an objective stance</td>
<td>Research is value laden; the researcher is biased by world views, cultural experiences and upbringing. These will impact on the research</td>
<td>Research is value bound, the researcher is part of what is being researched, cannot be separated and so will be subjective</td>
</tr>
<tr>
<td><strong>Methodology:</strong></td>
<td>Highly structured, large samples. Quantitative, but can use qualitative</td>
<td>Methods chosen must fit the subject matter, quantitative or qualitative</td>
<td>Small samples, in depth investigations, qualitative</td>
</tr>
</tbody>
</table>

While figure 15, offers an overview - scrutinising the subject of management research philosophies and their consequent paradigms, presents a “tautological dilemmatic confusion” (Mikansi & Acheampong, 2012, p. 132) of exactly of ‘how, when and why’ to harness any particular position. A summary of these philosophies follows:
Positivism

Positivists believe in knowledge through facts and scientific laws to search for regularity and causality (Burrell & Morgan, 1979). Epistemologically, according to Kincheloe and Tobin (2009, p. 518) positivists’ knowledge is worthwhile to the degree that it is derived from ‘objective information’ that corresponds to or reflects the world”.

Houghton (2008), claims positivism has a pre-occupied commitment towards directly observing the testable and measurable. This objective position guides further assumptions that “social entities exist in reality external to social actors” (Saunders, et al., 2009, p. 110); and “implicitly or explicitly that reality can be measured by viewing it through a one-way, value free mirror” (Sobh & Perry, 2006, p. 1196).

Smith (2009), underlines positivisms’ long and established history in social science research; though he also diagnoses its greatest drawback - disregarding substantial knowledge gained from experiences that are neither naturally scientific, nor directly observed.

Interpretivism

Interpretivists repudiate the opinion that scientific processes used to obtain “objective facts and established truths” can be used to study people; because human behaviour is heavily influenced by environmental perceptions i.e. their ‘subjective reality’ (Gray, 2014, p. 21; Crotty, 1998; Willis, 2007).

This leads to the view that “social phenomena are created from the perceptions and consequent actions of social actors” (Saunders, et al., 2009, p. 111). Likewise, within a ‘socially constructed’ world, establishing reality is better-achieved by means of the researcher’s subjective comprehension and experience of these constructs (Sobh & Perry, 2006; Aliyu, et al., 2014; Andrade, 2009).

Conversely, it is this subjective standpoint adopted to cognise the “accounts of people” (Arnold, 2002) that attracts critics of interpretivism. Since data is mostly qualitative - lack of exact analysis and therefore, reliability (in terms of repeatability) are potential risks; alongside discernible researcher bias (Wilson, 2014)
Realism

Realism offers some “dialectical mediation” (Yeung, 1997, p. 53) between the paradigmatically extreme philosophies of conventional positivism and interpretivism (Fulop, et al., 2001).

Kaidesoja (2015), condenses realism’s views on science as encompassing both ‘natural’ and ‘behavioural’ (social) sciences. Realists acknowledge the “reality and importance of meaning”, in conjunction with seeking clarification from “physical and behavioural phenomena” (Maxwell & Mittapalli, 2010, p. 17) - i.e. the researcher can develop scientific understanding by contemplating the “mechanics of explanation” (Fulop, et al., 2001, p. 7).

Phillips (1987, p. 205) continues, by surmising realism as “the view that entities exist independently of being perceived, or independently of our theories about them”. This ontological prioritisation and integration, is a mutual trait throughout realism philosophy (Maxwell & Mittapalli, 2010; Dobson, 2001). The realist researcher’s values are similarly central to those of an interpretivist - the main difference being, the latter would see themselves as “orchestrators and facilitators”, whereas the realist would favour a “more authoritative role” (Guba & Lincoln, 1994, p. 114).

A CRITICAL REALISM PHILOSOPHY FOR THIS STUDY

Directed by the research question and objectives, the author’s intention was to investigate “to what extent” A&E performance was being measured; and “rigorously analyse” individual factors identified in the conceptual framework, to understand “how and why” they effected performance. Falleti and Lynch (2009, p. 1146/7) refer to this “chain of intervening variables” as ‘causal mechanisms’ that help explain “how things happen”. Additionally, because research focussed on A&E at ELHT, it would naturally fall into a ’case study’ design (described later in the chapter).

Epistemologically, certain elements of performance measurement could be formed into a ‘naturally scientific process’, then repeatedly tested within an ‘observable society’ i.e. quantitative analysis of self-completion questionnaires relating to measurable fields such as: staff sickness, appraisal completion, and statistics of patient indicators etc. (Saunders, et al., 2009; Gray, 2014).
That said, the author’s stance in relation to research meant, although impartiality would have been preferred, the perspective of being independent, external and distanced - as per a positivist ontology - would simply not apply (Remenyi, et al., 1998). Furthermore, according to Easton (2010), positivism, when exclusively applied to case studies, becomes inflexible - as its causality relies on regularly connected sequences, which do not answer the ‘why’ question.

A portion of research also required the author to be submersed in the subject - empathising with NHS staff and the organisation, whilst collecting and interpreting narrative from nurses, doctors and managers during semi-structured interviews (Ormston, et al., 2013; Saunders, et al., 2009). Thus supporting interpretivism. Correspondingly, (as per positivism) a singular, interpretivist philosophy would not be fitting. Again, in relation to case studies, interpretivists’ judgement comes into question - because their causality derives solely from weighted interpretations (Easton, 2010)

**Critical realism**

Originally conceived as ‘naturalism’ by Bhaskar (1998), the critical realist’s outlook endorses the author’s natural, subjective position, relative to knowledge being gathered in the A&E setting, and centring on staff experiences i.e. “actual features of a real world”; moreover, critical realists endorse the need to understand and analyse causation - yet acknowledge that this may only be “imperfectly and probabilistically apprehensible” (Bhaskar, 1998; Maxwell, 2012, p. 8; Eastwood, et al., 2014; Sobh & Perry, 2006, p. 1200; Meyer & Lunnay, 2012).

A cautionary theme arises from this philosophy’s subjective, “common sense” and “value-laden” positioning (Maxwell, 2013, p. 6; Wikgren, 2005; Saunders, et al., 2009); which, for this study, meant the author needed to be aware of bias brought on from exposure to the A&E surroundings and the plight of its staff. Consequently, care was taken not to become too close, as the ability to ‘step back’ was imperative for critical evaluation purposes (Strauss & Corbin, 1998).

Lastly, the overall need to comprehend “causal processes” in relation to socio-cultural environments, purports critical realism to advocate ‘case studies’ and ‘mixed methods’ research (Saunders, et al., 2009; Maxwell & Mittapalli, 2010, p. 18; Maxwell, 2012; Easton, 2010). However, this obligation to represent a “family of answers” must also be reinforced by validity and triangulation (Pawson & Tilley, 1997, p. 152; Maxwell, 2012; Easton, 2010).
3.2. RESEARCH APPROACH, STRATEGY AND DESIGN

RESEARCH APPROACH

As per a critical realist approach, the author commenced data collection with fragments of a theory (Sobh & Perry, 2006), which supported the view of Miles, et al. (2013, p. 20), stating such theories should be developed from the literature to identify “key factors, variables or constructs and the relationship between them”. The conceptual framework (CF), represented a structure of OE and PM, including gaps where the PM is not represented - particularly relating to A&E’s input. By applying reasoning and logic, the author needed to understand each of these factors further; thus, establishing their significance and causality (i.e. ‘causal inference) became paramount (Eastwood, et al., 2014; Maxwell & Mittapalli, 2010).

This process of drawing conclusions from causal inference is supported by Danermark, et al. (2002, p. 79), who define it as “a way of reasoning towards an answer to questions such as: What does this mean? What follows from this? What must exist for this to be possible?”

MIXED METHODS STRATEGY

In conjunction with the philosophical position, both research strategy and design needed to partner applicability. This important phase is crucial to ensure germane data are systematically collected and interpreted to allow an informed, critical review of A&E performance (Cameron & Price, 2009).

‘Mixed methods’ refers to the combined use of quantitative and qualitative methods in one research project (Tembo, 2014). Evidence supports this strategy in realism research (Maxwell & Mittapalli, 2010; Sobh & Perry, 2006), enabling the researcher some bilateral and rational advantages when investigating multidimensional problems (McCusker & Gunaydin, 2015).

Numerical data (suitable for statistical analysis), to quantify relationships between variables, are referred to as quantitative (Gray & Payne, 2014).
Qualitative data are concerned with opinions and perspectives i.e. “people-centred”, and has steadily gained recognition in healthcare research; particularly when greater understanding of health professionals’ work ethics, and their interaction with patients and the environment is sought (Avis, 2005, p. 1; Ives & Damery, 2014).

In this study, self-completion questionnaires and semi-structured interviews, generated quantitative and qualitative data respectively.

Lastly, it was imperative that quantitative and qualitative ‘integration’ was achieved (Bryman, 2007); otherwise, these methods (and subsequent outcomes) could have sat parallel (Yin, 2006) - making inferences, difficult to ascertain. Aligning and cross-referencing lines of enquiry to the CF, enabled structure for this integration.

RESEARCH DESIGN

Blumberg, et al. (2008), refer to this point as the planning stages, incorporating the finer details and timeframes. (Appendix 3, highlights the various research designs and their applications.)

Studying single phenomena - whether that be a person, unit or setting - is known as a ‘case study’ (Bowling, 2014; Wilson, 2014). According to Yin (2003, p. 13), case studies are “empirical enquiries” particularly useful for in-depth analysis.

This design supported the use of mixed methods to meticulously unfurl the complexities of each component of A&E performance (integrating those not covered in the CQC framework) and the author’s need to investigate these further (Raich, et al., 2014; Bowling, 2014). This relevance is also supported by Easton (2010), who stresses the importance of defining boundaries (formed by the CF), which can be manipulated (narrowed or widened) depending on the search for causality.

However, due to this design centring exclusively on A&E at ELHT, presented its principal shortcoming; the materialised data are not generalizable and therefore, could not be representative of a wider context i.e. other Trusts, geographic locations, social environments and consequently, other A&E departments (Wilson, 2014; Bowling, 2014).
3.3 DATA COLLECTION

The following three methods were used for data collection (see also figure 21 for a comparative analysis of data collection and sampling):

SELF-COMPLETION QUESTIONNAIRE (SCQ)

Between them Malhotra and Birks (2006, p. 352) and Ekinci (2015, p. 3) describe the core functionality of questionnaires in management research, is to:

- gather reliable and valid information from respondents in relation to the research questions and objectives
- motivate respondents to respond
- provide a logical structure so that data collection flows smoothly
- provide a ‘standard format’, which guides participants to provide opinions that can be accurately recorded
- facilitate data processing and data protection
- minimise response error

<table>
<thead>
<tr>
<th>Scale</th>
<th>Scale properties</th>
<th>Type/Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nominal</td>
<td>Difference</td>
<td>‘Category’ scale used for occupation, grade, length of service</td>
</tr>
<tr>
<td>Ordinal</td>
<td>Difference, magnitude</td>
<td>‘Ranking’ scale for the factors of A&amp;E performance</td>
</tr>
<tr>
<td>Interval</td>
<td>Difference, magnitude, equal intervals</td>
<td>‘Linear numeric’ scale used to score each factor; and ‘Likert’ scale used for aspects of above factors</td>
</tr>
</tbody>
</table>

Figure 16: Purpose of questionnaires

To collect opinions on the individual factors of A&E performance, the online SCQ was devised on ‘Google Forms’ (see appendix 4) and incorporated a carefully constructed, scaling continuum upon which categorical data could be collected (Google, 2015; Gill & Johnson, 2011; Ekinci, 2015):

Carefully worded questions, meant a more technical analysis was achieved - with the added possibility of ‘data source’ triangulation, when trying to obtain numerous people’s answers to a certain question (Patton, 1999; Carter, et al., 2014). While online methods are cost-effective and reinforce anonymity; multiple submissions and authenticity issues can be problematic (Kapis & Korojelo, 2012) - the author envisaged each participant’s professional status would overcome this.
Pilot testing

To ‘iron-out’ any would-be issues; strengthen reliability and validity; and ensure the sequence of questions are correct, a pilot test (the same study with a small proportion of individuals) is recommended before any survey questionnaires are distributed (Malhotra & Birks, 2006; Wilson, 2014; Ekinci, 2015).

Prior to circulation, the SCQ was ‘piloted’ with a sample of staff representative of the wider population - one consultant, one healthcare scientists and one A&E nurse. By deploying “protocol analysis” and “debriefing” during on-to-one interviews with these individuals, the author gained valuable pointers on ambiguity of wording; applicability of certain questions; and their overall feedback of the questionnaire (Malhotra & Birks, 2006, p. 346). This was essential to understand “experiential logistics from actual procedural implementation” (Wilson, 2014; Byrne, 2001, p. 2017) and consequently, adjustments/improvements were made where necessary.

To probe deeper, meant interpreting rich narratives from doctors, nurses and managers during ‘dialogues with intent’ (Carter, et al., 2014; Ives & Damery, 2014). A series of ‘semi-structured’, face-to-face interviews, were conducted to isolate key opinions and gain “contextual insight” from the individual’s perspective (Yilmaz, 2013; Ives & Damery, 2014, p. 102). By this stage, a clearer appreciation of the structure of enquiry was established from the CF; therefore, corresponding discussions facilitated “exactly what needed to be found out” (Bell, 2010, p. 141).

This method involved construing attitudes and personal accounts; even though there was no need for formally-scripted questionnaires, the arrangement and ‘phraseology’ still had to be relevant and carefully considered (Ekinci, 2015; Taylor, 2005). Furthermore, by conducting ‘one-to-one sessions’ as opposed to focus groups, the author expected better spontaneity and honesty from all interviewees; although more demanding, this removed the possibility of ‘perspective-sharing’ from overheard responses, which inadvertently distorts data (Mansell, et al., 2004).

Figure 18, illustrates the considerations made during SCQ and SSI questionnaire formulation and methods for collecting data:
<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Face-to-face questionnaire</th>
<th>Mail questionnaire</th>
<th>Telephone questionnaire</th>
<th>Online questionnaire</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Use of ‘closed’ questions</strong></td>
<td>Fair</td>
<td>Excellent</td>
<td>Excellent</td>
<td>Excellent</td>
</tr>
<tr>
<td><strong>Use of ‘open’ questions</strong></td>
<td>Excellent</td>
<td>Fair</td>
<td>Fair</td>
<td>Fair</td>
</tr>
<tr>
<td><strong>Ability to seek clarification</strong></td>
<td>Excellent</td>
<td>Poor</td>
<td>Excellent</td>
<td>Poor</td>
</tr>
<tr>
<td><strong>Questionnaire complexity</strong></td>
<td>Simple to complex</td>
<td>Simple to moderate</td>
<td>Simple only</td>
<td>Simple to moderate</td>
</tr>
<tr>
<td><strong>Rapport with participants</strong></td>
<td>High</td>
<td>Very low</td>
<td>High</td>
<td>Very low</td>
</tr>
<tr>
<td><strong>Interviewer bias</strong></td>
<td>High</td>
<td>None</td>
<td>Medium</td>
<td>None</td>
</tr>
<tr>
<td><strong>Use of visual aids</strong></td>
<td>Good</td>
<td>Poor</td>
<td>Poor</td>
<td>Excellent</td>
</tr>
<tr>
<td><strong>Asking sensitive questions</strong></td>
<td>Fair</td>
<td>Good</td>
<td>Poor</td>
<td>Poor</td>
</tr>
<tr>
<td><strong>Response time of questionnaire</strong></td>
<td>Short to long</td>
<td>Short to medium</td>
<td>Short to medium</td>
<td>Short to medium</td>
</tr>
<tr>
<td><strong>Speed of data</strong></td>
<td>Immediate</td>
<td>Slow</td>
<td>Immediate</td>
<td>Fast</td>
</tr>
<tr>
<td><strong>Typical response rates</strong></td>
<td>Fair 30 to 60% max</td>
<td>Poor 15 to 50% max</td>
<td>Good 50 to 70%</td>
<td>Variable 15 to 50%</td>
</tr>
<tr>
<td><strong>Relative costs</strong></td>
<td>High</td>
<td>Low</td>
<td>Moderate</td>
<td>Very low</td>
</tr>
</tbody>
</table>

*Figure 18: Comparative analysis of questionnaires - adapted from Ekinci (2015, p. 16)*

**SECONDARY DATA ANALYSIS (SDA)**

Secondary data are ‘internal’ or ‘external’ data that have been collected and published by other researchers, groups and organisations - it can be either quantitative or qualitative (Wilson, 2014; Bowling, 2014).

As this is an explanatory, case study, secondary data is essential to elucidate components from the CF (Gray, 2014). Internal SDA related specifically to A&E at ELHT, such as HRM surveys and sickness rates; whereas external SDA concerned the wider elements of the CF such as local demographics, age/ethnicity of the population etc. (see figure 21).

Though both are inexpensive ways to collect information from large databases, caution was taken to ensure accuracy and applicability of data and during its subsequent analysis (Bowling, 2014; Saunders, et al., 2009).
When gathering representative data from a ‘target population’, it is crucial to identify appropriate sampling techniques and sample sizes (Wilson, 2014; Taub, et al., 2014). Here, the term ‘population’ is generalised as the group (or item) being surveyed, and so the ‘sample’ becomes a smaller subset of the population (Oakshott, 2014).

Practically, it would be difficult and time-consuming to attempt to capture each individual staff with links to A&E; let alone the 7000+ ELHT employees (Saunders, et al., 2009). Therefore, a clearly-defined, ‘typical’ proportion of staff was established i.e. ‘sampling frame’ (Oakshott, 2014; Wilson, 2014).

**Sampling techniques**

Sampling techniques fall into two distinct categories: “probability (random)” and “non-probability (non-random)” (Saunders, et al., 2009, p. 213; Wilson, 2014, p. 214).

<table>
<thead>
<tr>
<th>TECHNIQUE</th>
<th>STRENGTHS</th>
<th>WEAKNESSES</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Probability sampling</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Simple random sampling</td>
<td>Easily understood, results projectable</td>
<td>Difficult to construct sampling frame, expensive, lower precision no assurance of representativeness</td>
</tr>
<tr>
<td>Systematic sampling</td>
<td>Can increase representativeness, easier to implement than SRS, sampling frame not always needed</td>
<td>Can decrease representativeness</td>
</tr>
<tr>
<td>Stratified sampling</td>
<td>Includes all important sub-populations, precision</td>
<td>Difficult to select relevant stratification variables, not feasible to stratify on many variables, expensive</td>
</tr>
<tr>
<td>Cluster sampling</td>
<td>Easy to implement, cost-effective</td>
<td>Imprecise, difficult to compute and interpret results</td>
</tr>
<tr>
<td><strong>Non-probability sampling</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Convenience sampling</td>
<td>Least expensive, least time consuming, most convenient</td>
<td>Selection bias, sample not representative, not recommended for descriptive or causal research</td>
</tr>
<tr>
<td>Judgemental sampling</td>
<td>Low cost, convenient, not time consuming. Ideal for exploratory research designs</td>
<td>Does not allow generalisation, subjective</td>
</tr>
<tr>
<td>Quota sampling</td>
<td>Sample can be controlled for certain characteristics</td>
<td>Selection bias, no assurance of representativeness</td>
</tr>
<tr>
<td>Snowball sampling</td>
<td>Can estimate rare characteristics</td>
<td>Time consuming</td>
</tr>
</tbody>
</table>

*Figure 19: Sampling techniques - adapted from Malhotra and Birks (2006, p. 374)*
Although multiple techniques can be applied: for this study, the author adopted a non-probability technique with purposive (judgemental) sampling, commonly used in exploratory cases - the author’s rationale was to ensure relevant data (against factors identified in the CF) was obtained deliberately choosing participants (Wilson, 2014; Oakshott, 2014; Saunders, et al., 2009).

The author was seeking a complete working appreciation of A&E and therefore, ancillary staff (i.e. pharmacists, scientists, physiotherapists etc.) were not included in the representative sample.

The goal of interviewing, was to probe deeper; so the sample of staff needed to epitomise factors of the CF i.e. finance manager for budgets, Estates manager for facilities and the General manager when tackling leadership etc.

Figure 21, summarises and comparatively analyses the data collection processes:

<table>
<thead>
<tr>
<th>PROCESS</th>
<th>QUESTIONNAIRE</th>
<th>INTERVIEW</th>
</tr>
</thead>
<tbody>
<tr>
<td>Define the target population</td>
<td>ELHT staff with exposure and working knowledge of A&amp;E</td>
<td></td>
</tr>
<tr>
<td>Determine the sampling frame</td>
<td>Nurses (100+); managers (20+); consultants and doctors (20+); and ancillary staff (50+) i.e. pharmacy, scientists etc.</td>
<td></td>
</tr>
<tr>
<td>Select sampling techniques(s)</td>
<td>non-probability - judgemental sampling</td>
<td></td>
</tr>
<tr>
<td>Determine the sample size</td>
<td>• A&amp;E nurses (20-30);</td>
<td>• A&amp;E nurses/matron (4);</td>
</tr>
<tr>
<td></td>
<td>• managers (2-5);</td>
<td>• consultants and doctors (2);</td>
</tr>
<tr>
<td></td>
<td>• consultants and doctors (2-5);</td>
<td>• general manager (1);</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• estates manager (1);</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• finance manager (1);</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• engagement manager (1)</td>
</tr>
<tr>
<td>Execute the sampling process</td>
<td>Online survey ‘hyperlink’ distributed via email. Reminders sent once a week as extra provision</td>
<td>Interviews arranged via email, telephone and confirmed via secretaries where applicable</td>
</tr>
<tr>
<td>Validate the sample and return rate</td>
<td>Validated - see Chapter 4</td>
<td>Validated - see Chapter 4</td>
</tr>
</tbody>
</table>
**Chapter 3: research methodology**

**Table:** Comparative analysis of data collection methods

<table>
<thead>
<tr>
<th>METHOD</th>
<th>DESIGN AND PURPOSE</th>
<th>APPLICATION</th>
<th>STRENGTHS</th>
<th>WEAKNESSES</th>
<th>SAMPLE SIZE</th>
<th>RETURN</th>
</tr>
</thead>
<tbody>
<tr>
<td>Questionnaires</td>
<td>The questionnaire was designed to identify how individuals viewed the components of A&amp;E performance i.e. contain a purpose, which was linked to the CF (Ekinci, 2015). This was achieved by means of a series of ordinal, linear-scaled ‘closed’ questions. Free-text boxes were also available for additional input if needed.</td>
<td>The questionnaire link was distributed via emails with covering notes. ‘Google forms’ was used to analyse data (Google, 2015). Hyperlink: <a href="#">Factors of A&amp;E performance</a>.</td>
<td>Accurate, quantitative analysis can be easily achieved Efficient and at inexpensive Distribution to target population is easy Anonymity guaranteed</td>
<td>Impersonal, as no ‘face-to-face’ contact, Feelings cannot be gauged and clarification (if required) cannot be sought. Potential of misinterpretation and exaggeration exists Multiple submission and validity issues</td>
<td>Nurses (30), Managers (5), Doctors (5),</td>
<td>40 expected (65% of size) (22% of frame)</td>
</tr>
<tr>
<td>Interviews</td>
<td>Again, related to the research question, objectives and CF, these questions were structured to gain appropriate feedback. Questions were open, allowing for a collection of opinions. The author requested each meeting to be recorded if the interviewee did not object.</td>
<td>Interviews were conducted face-to-face Appointments were booked beforehand and the interviewee was given a full explanation of the purpose of this study</td>
<td>Personal and greater flexibility for interviewer Fuller, rich narrative and clarification of ambiguities Complex topics are easier to negotiate</td>
<td>Time-consuming Difficult to analyse Potential for errors and misinterpretations Potential for interviewer bias</td>
<td>Consultants (2), nurses (4), matrons (1), managers (2), and senior managers (1)</td>
<td>10 expected (100%)</td>
</tr>
<tr>
<td>Secondary data</td>
<td>Relevant statistical data from ELHT’s ‘Information and Performance’ teams proved vital for corroboration, as did sources such as NHS England, Office for National Statistics, Local Council, along with health journals and studies undertaken by ‘think tank’ groups such as Kings Fund and Nuffield Trust.</td>
<td>Relevant internal SDA was sourced through ELHT’s Information office and relevant external SDA was researched via appropriate literature and online sources</td>
<td>Inexpensive and less resource intensive Allows for comparative analysis Can be easily accessible</td>
<td>May not match research problem Caution when judging sources, accuracy and completeness Not always in a manageable format</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Sources:** Malhotra and Birks (2006); Bowling (2014); Ekinci (2015); Gray (2014); Wilson (2014)
3.4 DATA ANALYSIS

Critical appraisal of any research is heavily influenced by the quality of information (Keen & Otter, 2014); this section identifies means and methods for ensuring this:

Reliability and validity

Reliability

“…refers to the reproducibility and consistency of the instrument”

(Bowling, 2014, p. 170)

Firstly, this is the main indicator for the extent of consistency and stability during data acquisition (Wilson, 2014). Secondly, this defines repeatability i.e. would the same conclusion/result occur if the research was repeated (Keen & Otter, 2014). It is important to stress that results can be reliable but not necessary valid; therefore, reliability, without validity is insufficient (Drost, 2011; Wilson, 2014).

### Threats to reliability:

<table>
<thead>
<tr>
<th>Threats to reliability:</th>
<th>Considerations for this study:</th>
</tr>
</thead>
<tbody>
<tr>
<td>According to Wilson (2014), there are three main threats to reliability in management research:</td>
<td>Questionnaires and interviews were not presented/conducted if staff appeared to be busy or during peak times</td>
</tr>
<tr>
<td><em>Time error:</em> relates to variation of results depending upon time of day/week/year</td>
<td>Research was targeted at a cross-section of staff i.e. doctors, nurses, managers</td>
</tr>
<tr>
<td><em>Subject error:</em> relates to nature and behaviour of the participants and could be influenced by participant bias</td>
<td>Participants were of differing hierarchical levels i.e. junior and senior staff</td>
</tr>
<tr>
<td><em>Observer influence:</em> relates to the influence of the researcher on the participant and could be influence by bias</td>
<td>The author, at all times, refrained from ambiguity of questionnaire wording and/or leading interviewees</td>
</tr>
</tbody>
</table>

Validity

“…is an assessment of whether an instrument measures what it aims to measure”

(Bowling, 2014, p. 170)

This is the main indicator for the research components meaningfulness (Drost, 2011), in other words "whether data collected is a true picture of what is being studied i.e. is it really evidence of what it claims to be evidence of?" (McNeill & Chapman, 2005, p. 9).

### Threats to validity:

<table>
<thead>
<tr>
<th>Threats to validity:</th>
<th>Considerations for this study:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Based on the work of Robson (1993), Wilson (2014) describes the threats to validity as:</td>
<td>All research questions were clearly defined, understood by the participants and linked back to the research objectives</td>
</tr>
<tr>
<td><em>Timing and history:</em> i.e. if the research is about finances following a budget cut</td>
<td>All participants were fully engaged from the outset</td>
</tr>
<tr>
<td><em>Mortality:</em> i.e. participant’s withdrawal and non-completion rates</td>
<td>All research undertaken over four weeks</td>
</tr>
<tr>
<td><em>Instrumentation:</em> i.e. any instruction that occur from beginning to end of research</td>
<td>All measures and analysis was conducted directly against responses to the question and research objectives</td>
</tr>
<tr>
<td><em>Maturation:</em> (particular for longitudinal design) which occur over the duration</td>
<td>Any secondary data was specific and applicable</td>
</tr>
<tr>
<td><em>Ambiguity about the direction of causal influence:</em> i.e. improper associations between cause and effect</td>
<td>Any data that did not fit was discussed separately and not miscomputed</td>
</tr>
</tbody>
</table>

Figure 22: Reliability and validity
Ethics and Bias

Resonance between management research and management practice is often referred to as the ‘research-practice gap’ and must be correctly ‘bridged’ for the value of any research study to be credible in the ‘real world’ (Bansal, et al., 2012). The author was particularly mindful of this - because from experience, NHS staff are regularly subjected to surveys, questionnaires and performance enquiries. Therefore, sensitivity was obligatory. To achieve clear channels of communication and authenticity - especially when dealing with sensitive elements - the author endeavoured to demonstrate ethical considerations and empathise with colleagues. It was important for individuals to be at ease during interviews and not feel ‘under a microscope’ - this careful balance of respecting each individual and the impending task, was vital to collect all the necessary information (Korac-Kakabadse, et al., 2003).

Although being a healthcare professional means the author always faces clinical accountability (Iphofen, 2005), relevant permissions were sought beforehand, and all necessary ethics procedures (university and workplace) were adhered to at all times. The author had insight and experience of the subject matter; and so, could not start with a ‘clean slate’ (Partington, 2003). Notwithstanding this stance, the author ensured any preconceived opinions and bias did not feature in terms of questioning or leading the interviewee during dialogue; and that any evidence supplied, was not prejudiced to support the argument, or manipulated in favour of a particular outcome during analysis (Saunders, et al., 2009; Bell, 2010; Bednar & Welch, 2008).

Triangulation

To finish, a critical component of realism research is to ensure ‘triangulation of data’, which “covers its reality’s several contingent contexts” (Sobh & Perry, 2006, p. 1203). This technique was originally used by land surveyors to establish geographic positioning and centres on the notion that “several observations of a datum” are better than one (Bechhofer & Paterson, 2000, p. 57). In social sciences research, triplicated, cross-referencing, by using a variety of methods from diverse settings and individuals, ensures triangulation is achieved (Denzin, 1970; Modell, 2009). In this instance, coincidental association and partiality was reduced by methodical triangulation; moreover, the equipoise between strengths and weaknesses (see figure 21) of the three methods used (Wilson, 2014; Strauss, 1987; Easterby-Smith, et al., 1991; Modell, 2009).
A presentation of research data from the three, previously described methods, followed by critical discussions.
In this chapter, conglomerated research data from the three methods described in ‘Chapter 3’, will be aligned with factors of the conceptual framework (CF), followed by critical discussions. The author intends to present analysis, which either supports or refutes the factors of the CF and their relationship with A&E’s performance; likewise, identify any unconnected variables that require further investigation (Bowling, 2014).

PARTICIPANT DEMOGRAPHICS

Self-completion questionnaire (SCQ):

![Gender Distribution Chart](chart1.png)

- Gender (n=26):
  - Female: 17
  - Male: 9

![Age Distribution Chart](chart2.png)

- Age Distribution:
  - 20 - 29 years old: 6
  - 30 - 39 years old: 8
  - 40 - 49 years old: 4
  - 50 - 59 years old: 8
A total of 26 individuals responded, representing 22% of the sample frame, which exceeded the (minimum) anticipated sample size and matched the lower end of Ekinci’s (2015) suggested response rate (of 15-50%) for online surveys. The demographics were illustrative of the author’s intended audience in terms of age, experience and occupation (number of respondents and respective grades).
Secondary data analysis (SDA):

Some factors of this chapter are cross-referenced against the recent ‘staff survey’ conducted at ELHT. A total of 53 A&E staff completed this online survey, which closed in December 2015. Because this questionnaire maintained anonymity, demographics are not available.

Semi-structured interview (SSI):

Ten individuals were interviewed - achieving 100% of the anticipated sample size. The cohort of staff also represented the judgementally sampled audience needed for collecting in-depth opinions. Due to previously stipulated requests for anonymity, interviewee position/grades are not disclosed.
4.1: FACTOR 1 - VISION, MISSION AND VALUES:

FACTOR 1: SCQ RESULTS

Staff were asked ‘how important were organisational vision, mission and values’ and if they were currently ‘where they needed to be’ to optimise A&E performance (n=26):

Q.12: HOW IMPORTANT ARE A&E’S ‘VISION, MISSION AND VALUES IN RELATION TO PERFORMANCE?

Q.13: Do you think the following aspects of ‘Factor 1’ are ‘where they need to be’ for optimum performance?
FACTOR 1: SDA

Results from staff-survey on questions relating to organisational ‘vision, mission and values’ (n=53):

- Care of patients is not organisation’s top priority
- If friend/relative needed treatment would not be happy with standard of care provided by organisation
- Organisation does not act on concerns raised by patients/service users
- Would not recommend organisation as place to work

The central theme throughout the semi-structured interviews (and featuring in some contemporaneous text from the SQC) centred on the “firefighting” element of A&E:

- “my only vision at times is ‘how to survive this shift’”
- “it seems like the 4-hour target overshadows any organisational values”

Nurses were aware of ELHT’s mantra of ‘safe, personal and effective’, but not the vision, mission and values - though most knew where they could be found, in the event of being asked by the Care Quality Commission (CQC). Leading to this statement:

- “extra effort is made to ensure staff are aware of these prior to a CQC visit - I’m not sure if they are at the forefront of my thoughts when it’s heaving and patients are queueing on corridors”
A universal belief from nursing, medical and management staff, focused on having their own identity:

“I appreciate the fact that ‘safe personal and effective’ is drummed into us on a daily basis, but that’s what we do as nurses, it’s natural - having our own set of values etc. would give us more identity and make staff feel prouder”

**FACTOR 1: DISCUSSION**

SCQ results scored ‘vision, mission and values’ a total of 227 out of 260 in Q.12, with a 31% ‘10-score’ - ranking it lowest amongst the five factors. 46% responded ‘neutral’ for Q.13 in terms of where vision, mission and values ‘needed to be’. Positive responses (i.e. agree and strongly agree) amounted to 33%, and negative responses (i.e. disagree and strongly disagree) 21% - positioning bias towards negative overall.

A&E response to the staff survey also indicated a negative perspective on the organisation’s vision, mission and values - with each factor scoring higher than ELHT’s average. The most notable being 13% of staff claiming ‘care of patients is not the organisation’s top priority’, as opposed to 7% for ELHT.

A neutral-negative bias was also apparent during the semi-structured interviews. Delivering quality care was never in question, but underpinnings from the corporate strategy was never cross-referenced by clinical staff. Most participants highlighted the significance of having vision, mission and values at the forefront of their purpose within the organisation and when decision-making; yet conceded these parameters become diffused across the realities of the day-to-day A&E setting. A proposition suggested by Stacey and Mowles (2016, p. 132), as “unconscious dynamics and processes”.

Although a general understanding was observed by staff and references to the NHS constitution, ‘6C’s’ of nursing (NHS England, 2016) etc. were mentioned - vision, mission and values merged into the organisation’s mantra of delivering ‘safe personal and effective’ care. Furthermore, a perceived isolated nature of A&E led the majority of staff to suggest creating A&E’s own values, but this was disputed by some managers, who thought further isolation would ensue as a consequence. Literature maintains the fundamental rule for organisational success is emotional buy-in from employees (Stacey & Mowles, 2016) - results do not support this.
4.2: FACTOR 2 - LEADERSHIP AND CULTURE

FACTOR 2: SCQ RESULTS

Staff were asked ‘how important was leadership and culture’ and if it was currently ‘where it needed to be’ to optimise A&E performance (n=26):

Q.15: HOW IMPORTANT ARE A&E’S ‘LEADERSHIP AND CULTURE’ IN RELATION TO PERFORMANCE?

Q.16: Do you think the following aspects of ‘Factor 2’ are ‘where they need to be’ for optimum performance?
FACTOR 2: SDA

Results from the staff-survey on questions relating to ‘leadership and culture’:

<table>
<thead>
<tr>
<th>Issue</th>
<th>Emergency Services</th>
<th>Trust Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Senior managers do not try to involve staff in important decisions</td>
<td>35%</td>
<td>20%</td>
</tr>
<tr>
<td>Senior managers do not act on staff feedback</td>
<td>30%</td>
<td>25%</td>
</tr>
<tr>
<td>Immediate manager does not value my work</td>
<td>15%</td>
<td>10%</td>
</tr>
<tr>
<td>Immediate manager does not give clear feedback</td>
<td>25%</td>
<td>20%</td>
</tr>
<tr>
<td>Immediate manager does not encourage team working</td>
<td>5%</td>
<td>2%</td>
</tr>
<tr>
<td>Immediate manager does not ask for my opinion</td>
<td>15%</td>
<td>10%</td>
</tr>
<tr>
<td>Immediate manager cannot be counted upon to help with tasks</td>
<td>15%</td>
<td>10%</td>
</tr>
<tr>
<td>Do not know who senior managers are</td>
<td>5%</td>
<td>2%</td>
</tr>
<tr>
<td>Communication between senior management and staff is not effective</td>
<td>45%</td>
<td>40%</td>
</tr>
</tbody>
</table>

FACTOR 2: SSI FEEDBACK

Similar to factor 1, there was general acknowledgement of the hectic environment:

“leadership is hard to impose when everyone is used to working in a culture of chaos”
However, the impact of leadership on culture was the main topic of uncertainty:

“it’s hard to put a number on leadership and culture, but poor leadership impacts people’s attitude, which causes cultural divides and in my opinion, there are certain elements of that in A&E”

“some on-call managers don’t know the first thing about A&E and adopt a dictatorial leadership style that gets everyone’s backs up”

There was also references to a hierarchical cultural divide:

“leaders need to work on the ‘two-tiered’ nursing and doctor culture on the shop floor, because one tier fails to function without the other”

“training the right people as leaders is essential - people are assumed as natural leaders through false hierarchies”

**FACTOR 2: DISCUSSION**

The importance of ‘leadership and culture’ scored 245 out of 260 - the highest overall score of any factor, including a 70% ‘10-score’. However, Q.16 illustrated the negative bias of staff regarding the status of current leadership and culture, as 38% scored neutral, 45% negatively and just 17% positively. The SDA also echoed dissatisfaction, where the largest negative variance between A&E and ELHT related to: ‘communication, ‘not knowing who senior managers are’, ‘asking opinions’, ‘feedback’ and ‘being involved with decisions’. On a positive note, there were two areas, where A&E scored better than the Trust average: ‘encouraging team-working’ and ‘help’ from immediate manager’.

Leadership and culture generated strong reactions, particularly around whether-or-not there was a ‘divide’. Further discussions revealed that not only was this gap multidisciplinary (i.e. between doctor and nurse, manager and doctor etc.), but also between junior and senior staff within individual specialities (i.e. nurse to nurse, doctor to doctor). ‘Lack of communication and engagement’ were the most repeated comments throughout SSI, which are considered by (Hardacre, et al., 2010, p. 32) as essential aspects “associated with leading NHS improvement”, but when absent as the ‘silent killer’ of large organisations (Groysberg & Slind, 2012).
4.3: FACTOR 3 - WORK ENVIRONMENT, MANAGEMENT AND CONTROL SYSTEMS

FACTOR 3: SQC RESULTS

Staff were asked ‘how important were work environment, management and control systems’ and if they were currently ‘where they needed to be’ to optimise A&E performance (n=26):

Q.18: HOW IMPORTANT ARE A&E’S WORK ENVIRONMENT, MANAGEMENT AND CONTROL SYSTEMS IN RELATION TO PERFORMANCE?

Q.19: Do you think the following aspects of ‘Factor 3’ are ‘where they need to be’ for optimum performance?
**FACTOR 3: SDA**

Due to the specialised nature of ‘work environment, management and control systems’, tangible secondary data on A&E’s facilities, technology and IT were not readily available. Numerous clinical and operational policies are accessible online and via hard copies in staff ‘handbooks’.

Secondary data relating to budgets:

![Graph showing A&E operating budget for 2014/15 and 2015/16](image)

**FACTOR 3: SSI FEEDBACK**

Most staff across the specialities were content with policies and procedures. There was some dissatisfaction towards accessibility shown by the nursing team (discussed later) and how up-to-date some policies were.

“lack-of staff means, less attention given to updating policies”

Concern was also raised of locum and agency staff, partly linked to accessibility:

“locum and agency staff are never aware of local policies and procedures, which makes some processes not as slick as they should be”
The topic of budgetary control divided attitudes - junior staff were of the opinion that:

“money should never factor into caring for patients, but it seems that our main focus at times, is all about money”

Senior nurses wanted more understanding:

“as sisters and co-ordinators, we should have an insight into finances, which we don’t have; especially we are always asked to save money. How can we, when we haven’t got a clue about budgets”

Senior managers and directors claimed better control was needed:

“A&E’s budget has increased based on requirements over a number of years. It’s now time for constant challenges and for A&E to collectively manage their budget through better staffing provisions and leaner operating all round”

Discussions around A&E ‘facilities’ raised the general view from the ‘shop floor’ that it was “too small” and the “layout was all wrong, and architecturally, not patient-centred”:

“patients, constantly queuing on corridors should tell the people upstairs that there just isn’t enough room, meaning A&E isn’t big enough”

Management’s view was:

“it’s a difficult argument to settle, my question in response to when people say it’s too small, is ‘how big should we make it?’ There is no consistent answer to this”

The technology in A&E has recently been upgraded and therefore, well received by each interviewee. IT systems were doubted and this was mainly around “slow computers”, “clunky interfaces” and “access issues”: 
FACTOR 3: DISCUSSION

According to Stacey and Mowles (2016, p. 131), the components of this factor in an ‘open system’ are “intended to hold the whole system together”, and maintain balance with the environment. Evidence supporting this was varied.

Analysis from the SCQ revealed ‘factor 3’, scored 232 out of a possible 260 (rank 4th), with a 46% ‘10-score’. Results from Q.19, and respective vote bias is as follows:

<table>
<thead>
<tr>
<th>FACTOR</th>
<th>POSITIVE BIAS</th>
<th>NEUTRAL</th>
<th>NEGATIVE BIAS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Policies and procedures</td>
<td>65%</td>
<td>23%</td>
<td>12%</td>
</tr>
<tr>
<td>Budgetary control</td>
<td>0%</td>
<td>50%</td>
<td>50%</td>
</tr>
<tr>
<td>Facilities</td>
<td>15%</td>
<td>15%</td>
<td>70%</td>
</tr>
<tr>
<td>Technology and IT</td>
<td>46%</td>
<td>27%</td>
<td>27%</td>
</tr>
<tr>
<td>OVERALL</td>
<td>31.5%</td>
<td>28.75%</td>
<td>39.75%</td>
</tr>
</tbody>
</table>

A combination of greater negative bias on ‘facilities’ and ‘budgets’, somewhat neutralised the positive scoring of ‘policies’ and ‘technology’ - thus influencing the greater swing overall from neutral to negative.

Narrative concurred with the view that ‘policies and procedures’ were geared for optimum performance - the only obstacle, related to difficulties accessing policies, which therefore, negatively impacted ‘IT systems’. Two minor concerns were raised: one centred on updates (i.e. freeing staff to update when there are staffing concerns); the second, was an improvement suggestion around better synchrony of clinical policies with patient management procedures - again, this was IT dependent. Slow computers and access issues were common IT-related themes, though the general mood appeared favourable.
In opposition, ‘budget’ and ‘facilities’, were matters that split the specialities: managers generally agreed they were sufficient, whereas doctors and nurses the opposite. Budget-wise, the need for better understanding and training was widely accepted and echoed amongst the ranks. Management opinions centred on greater control of budgets and subsequent overspend (particularly around locum/agency staffing and better use of electronic rostering); nurses and doctors wanted more involvement, which they claimed would ensure better control and attentiveness around consumable usage and waste. SDA indicates a £2.4m (15.22%) overspend in 2014/15 and - following an increased allocation - £3.16m (19.78%) overspend in 2015/16, emphasising regulatory sentiments from both sides.

Facilities - specifically space and layout - generated wider calls for concern from clinical staff, involving accounts of patients waiting on corridors, and subsequent lack of respect and dignity - questions on mental illness provisions were also raised. The unequivocal belief was “more people are coming through our doors and we need more capacity”. Recent evidence to support this patient-volume increase shows a 6.57% rise since 2013:

<table>
<thead>
<tr>
<th>YEAR</th>
<th>2013/14</th>
<th>2014/15</th>
<th>2015/16</th>
</tr>
</thead>
<tbody>
<tr>
<td>A&amp;E ATTENDEES</td>
<td>174,011</td>
<td>183,356</td>
<td>185,447</td>
</tr>
</tbody>
</table>

Management acknowledged of the lack of mental health provisions and the ‘corridor’ issues; though responses were directed on better flow of patients and the possibility of restricting the amount of visitors, which impacts waiting areas.

In terms of redesign and additional capacity, there was reluctance to commit. The main reasons being lack of estate, magnified cost (due to the hospital being a ‘private finance initiative’ (PFI)) and the genuine uncertainty of “how big does it needs to be”. Moreover, the department received heavy investment in 2013, leading to a larger ‘Resus’ area being built. Clinical staff welcomed this extension, but also stated it as “long overdue” and still “not enough”. There was praise for the facilities at the Urgent Care Centre (UCC) at Burnley, as the archetypical model for privacy and dignity.

In ‘open systems theory’, work environment, alongside management and control systems are pivotal to manage the ‘boundaries’ and regulate adaptive change. There is evidence of budget, technology, policies and procedures adapting; but IT and facilities (though increasing capacity in 2013) remain static (Stacey & Mowles, 2016).
4.1: FACTOR 4 - HUMAN RESOURCE MANAGEMENT

FACTOR 4: SCQ RESULTS

Staff were asked ‘how important was human resource management’ and if was currently ‘where it needed to be’ to optimise A&E performance (n=26):

Q.21: HOW IMPORTANT ARE A&E'S HRM IN RELATION TO PERFORMANCE?

![Bar chart showing the importance of HRM to A&E performance](chart1.png)

Q.22: Do you think the following aspects of ‘Factor 4’ are ‘where they need to be’ for optimum performance?

![Bar chart showing the aspects of Factor 4](chart2.png)
FACTOR 4: SDA

a. **staff resurvey results from category relating to job design and demands of the workplace:**

![Bar chart showing staff resurvey results from category relating to job design and demands of the workplace.](chart.png)
b. **staff survey results from categories relating to training and competencies:**

![Graph showing the percentage of staff responses for various training and competencies categories.](image1)

- No mandatory training in the last 12 months
- Training has not helped me deliver a better patient/service user experience
- Training has not helped me stay up-to-date with prof. requirements
- Training did not help me do job more effectively
- No training, learning or development in the last 12 months

---

c. **Staff survey results on appraisals:**

![Graph showing the percentage of staff responses for various appraisal-related issues.](image2)

- Not supported by manager to receive training, learning or development identified in appraisal
- Appraisal/Performance review: training, learning or development needs not identified
- Appraisal/Performance review: organisational values not discussed
- Appraisal/Performance review: left feeling work not valued
- Clear work objectives not agreed during appraisal
- Appraisal/review not helpful in improving how do job
- No appraisal/KSF review in last 12 months

---
**d. staff survey results on motivation and rewards:**

![Survey results graph]

**FACTOR 4: SSI FEEDBACK**

Starting with ‘job design and demands of the workplace’, most feedback (across the disciplines) highlighted shortfalls on lack of preparedness and continual demands of a high-pressure A&E environment. From a nursing perspective, it was very much about “being thrown in at the deep end” and retaining staff:

> “I was thrown in at the deep end without a proper induction period or anything. I remember my second shift… it was like there you go, and that was that… I was exposed to the traumas of A&E”

> “It takes a certain type of person to work in A&E, so the main problem is retaining staff - demands become too much and nurses move on to something less hectic”
Doctors expressed strains of the medical rota, due to short-staffing and talks of “burnout” and “not enough work-life balance” were not uncommon. Likewise, the pressure of administrative duties was also mentioned:

“medical staff are not prepared for the mountains of paperwork and other administrative duties - they are just expected to do it”

Managers too associated the demands of A&E on their job design, particularly those undertaking “on-call shifts”

“on-call managers are simply not prepared for the turmoil of A&E, it is not uncommon for a finance manager working on-call to become involved in decisions with clinical staff around moving patients”

Feedback on training and competencies was predominantly positive; all staff were united in their praise for the practice educators:

“our training and competencies have massively improved, the practice educators are trying to turn things around”

Appraisals on the other hand, were criticised:

“appraisals here don’t mean a thing - they’re just box-ticking exercises from management to make it appear like they give a s##t. I can’t even remember the last time I had one, let alone remember any feedback from it”

Motivation and rewards, raised some varied themes, but commitment to provide quality care was undoubted:

“knowing I’ve delivered patient care to the best of my ability motivates me”

“you tend to forget about the politics and everything else that’s going on around you and just get on with things regardless - caring for patients motivates most of us”
This mood of professionalism was offset, when asked about the organisation’s role in motivating staff; general morale; and rewards:

“I came into nursing from the banking sector, where it was all customer-focussed and a main management objective was staff motivation - because happy staff, meant happy customers. There is none of that here”

“you become blasé to patients on waiting on corridors. At the beginning it motivates you to work faster and try to make a difference. But this scenario is never-ending, so it becomes demotivating, because there’s nothing you can do about it. So you move the boundaries and start thinking along the lines of ‘I can see five patients on the corridor, I’ll start worrying when we get to ten or more… its soul-destroying’”

“I know we can’t have money, but something like mince pies at Christmas would be appreciated - if they can’t stretch to that… then a simple thank you on a regular basis is reward enough. At least it’s something to show we’re valued here on the front line”

**FACTOR 4: DISCUSSION**

Results from Q.21 gave HRM a score 233 out of 260 in terms of importance (overall ranked 3rd). Outcomes from Q.19, and respective vote bias is as follows:

<table>
<thead>
<tr>
<th>FACTOR</th>
<th>POSITIVE BIAS</th>
<th>NEUTRAL</th>
<th>NEGATIVE BIAS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Job design and workplace demands</td>
<td>15%</td>
<td>19%</td>
<td>66%</td>
</tr>
<tr>
<td>Training and competencies</td>
<td>85%</td>
<td>15%</td>
<td>0%</td>
</tr>
<tr>
<td>Appraisals</td>
<td>31%</td>
<td>27%</td>
<td>42%</td>
</tr>
<tr>
<td>Motivation</td>
<td>27%</td>
<td>31%</td>
<td>42%</td>
</tr>
<tr>
<td>Rewards</td>
<td>23%</td>
<td>31%</td>
<td>46%</td>
</tr>
<tr>
<td><strong>OVERALL</strong></td>
<td><strong>36.2%</strong></td>
<td><strong>24.6%</strong></td>
<td><strong>39.2%</strong></td>
</tr>
</tbody>
</table>

It is obvious from the SCQ results that positive bias from ‘training and competencies’ counterbalanced scoring (towards equilibrium), from a potentially heavy neutral-negative bias. Comparable percentages across three biases, also demonstrated the strong connection between appraisals, motivation and rewards,

This became apparent during interviews too, as the general mood correlated the SCQ findings. Endeavours of A&E’s Practice Education Facilitators (PEFs) to improve (previously poor) training and competencies were universally praised. However, this positive mood was offset by the other interconnected components of factor 4.
‘Job design and workplace’ demands showed the heaviest rate of dissatisfaction. On one hand, there was undoubted commitment to delivering quality care within a 4-hour target, which became a common source of motivation and similarly reward upon achievement. On the other, discussing this from an organisational perspective, raised a mood of discontent. Shortage and retention of staff was a general concern, leading to quotes of “burnout” and being “thrown in at the deep end”, together with issues of maintaining a “work-life balance”, which bolstered the underlying theme of ‘fire-fighting’ and A&E’s incessant demands. All of which, culminated in low morale and consequential demotivation. Heartfelt accounts of patients on trolleys underpinned the clinical staff’s position; while some managers spoke about being ‘lost’ in the demands of A&E and having to manage critical outcomes of patients. Furthermore, many staff claimed their job description was not a fair representation of their job design.

Responses to the subject of reward systems aligned with Bullas and Ariotti (2002), who observed NHS staff were not driven by financial bonuses (though some did welcome the thought of more pay). However, the need for organisational recognition was universally fed back and a lack thereof, universally criticised by clinical staff. From a management standpoint, ‘employee of the month’ incentives were mentioned, but the view from the ‘shop floor’ was mixed: some welcomed this, others claimed it made a mockery of the efforts of everyone by “singling out” one individual.

Lastly, interview results on ‘appraisals’ split opinions: medical staff stated the importance of their appraisals on professional registration etc. and managers, from an organisational obligation. However, nursing staff were united in their disproval of the “box-ticking” process; not having undertaken an appraisal for “x-amount of years”; and apparent lack of commitment on individual needs.

SDA from the staff survey confirms A&E staff’s attitudes on HRM; as each section (bar use of ‘skills’ and ‘pay’) scored worse than the ELHT average. Overall analysis on this factor reveals an intrinsic sense of motivation, which is bonded to individual needs, combined with a ‘normative’ outlook - where staff valued their work and identified with their contribution to providing quality care (Maslow, 1998; Stacey & Mowles, 2016). However, Karami, et al. (2013) suggest - in return, organisations must acknowledge, support and satisfy individual needs to ensure performance is sustained. The show of discontentment towards the organisation, identifies a significant gap in proceedings.
4.5: FACTOR 5 - EXTERNAL/ENVIRONMENTAL INFLUENCES

FACTOR 5: SCQ RESULTS

Staff were asked how important and how much impact ‘external/environmental influences’ had on A&E performance:

**Q.24: HOW IMPORTANT ARE EXTERNAL/ENVIRONMENTAL INFLUENCES IN RELATION TO A&E PERFORMANCE?**

![Graph showing Q.24 results]

**Q.25: Do you think the following aspects of ‘Factor 5’ have an impact on A&E performance?**

![Graph showing Q.25 results]
FACTOR 5: SDA

a. data on age of local population

![Age Distribution Graph]

b. data on ethnicity of A&E attendees

<table>
<thead>
<tr>
<th>ETHNIC DESCRIPTION</th>
<th>2013/14</th>
<th>2014/15</th>
<th>2015/16</th>
<th>% of attendances</th>
</tr>
</thead>
<tbody>
<tr>
<td>White British</td>
<td>12,1977</td>
<td>13,0421</td>
<td>12,7330</td>
<td>69.96%</td>
</tr>
<tr>
<td>White Irish</td>
<td>422</td>
<td>444</td>
<td>405</td>
<td>0.23%</td>
</tr>
<tr>
<td>Any other White background</td>
<td>7393</td>
<td>8266</td>
<td>8381</td>
<td>4.43%</td>
</tr>
<tr>
<td>Pakistani or British Pakistani</td>
<td>20848</td>
<td>23041</td>
<td>23366</td>
<td>12.39%</td>
</tr>
<tr>
<td>Indian or British Indian</td>
<td>2826</td>
<td>3333</td>
<td>3271</td>
<td>1.74%</td>
</tr>
<tr>
<td>Bangladeshi or British Bangladeshi</td>
<td>1013</td>
<td>1158</td>
<td>1108</td>
<td>0.60%</td>
</tr>
<tr>
<td>Other Asian/other British Asian</td>
<td>3558</td>
<td>3806</td>
<td>3825</td>
<td>2.06%</td>
</tr>
<tr>
<td>African</td>
<td>175</td>
<td>218</td>
<td>194</td>
<td>0.11%</td>
</tr>
<tr>
<td>Caribbean</td>
<td>68</td>
<td>76</td>
<td>75</td>
<td>0.04%</td>
</tr>
<tr>
<td>Chinese</td>
<td>146</td>
<td>140</td>
<td>140</td>
<td>0.08%</td>
</tr>
<tr>
<td>Mixed race white/Black Caribbean</td>
<td>116</td>
<td>152</td>
<td>172</td>
<td>0.08%</td>
</tr>
<tr>
<td>Mixed race white/Asian</td>
<td>640</td>
<td>668</td>
<td>696</td>
<td>0.37%</td>
</tr>
<tr>
<td>Mixed race white/black African</td>
<td>122</td>
<td>155</td>
<td>123</td>
<td>0.07%</td>
</tr>
<tr>
<td>Mixed race any other background</td>
<td>311</td>
<td>337</td>
<td>297</td>
<td>0.17%</td>
</tr>
<tr>
<td>Any other Black background</td>
<td>295</td>
<td>338</td>
<td>327</td>
<td>0.18%</td>
</tr>
<tr>
<td>Any other ethnic group</td>
<td>619</td>
<td>688</td>
<td>609</td>
<td>0.35%</td>
</tr>
<tr>
<td>Not stated/refused</td>
<td>8100</td>
<td>10090</td>
<td>15127</td>
<td>6.14%</td>
</tr>
<tr>
<td>Unknown</td>
<td>5382</td>
<td>25</td>
<td>1</td>
<td>1.00%</td>
</tr>
<tr>
<td>TOTAL ATTENDEES</td>
<td>174011</td>
<td>183356</td>
<td>185447</td>
<td>100.00%</td>
</tr>
</tbody>
</table>
c. data on socioeconomic deprivation

<table>
<thead>
<tr>
<th>IMD Decile of LSOA*</th>
<th>2013/14</th>
<th>2014/15</th>
<th>2015/16</th>
<th>% of attendances</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>59,675</td>
<td>63,332</td>
<td>64,250</td>
<td>34%</td>
</tr>
<tr>
<td>2</td>
<td>26,079</td>
<td>27,132</td>
<td>27,390</td>
<td>15%</td>
</tr>
<tr>
<td>3</td>
<td>24,449</td>
<td>25,648</td>
<td>26,396</td>
<td>14%</td>
</tr>
<tr>
<td>4</td>
<td>14,149</td>
<td>14,842</td>
<td>14,790</td>
<td>8%</td>
</tr>
<tr>
<td>5</td>
<td>10,072</td>
<td>10,785</td>
<td>10,749</td>
<td>6%</td>
</tr>
<tr>
<td>6</td>
<td>6475</td>
<td>6778</td>
<td>6926</td>
<td>4%</td>
</tr>
<tr>
<td>7</td>
<td>9357</td>
<td>9888</td>
<td>9919</td>
<td>5%</td>
</tr>
<tr>
<td>8</td>
<td>11,488</td>
<td>12,026</td>
<td>11,823</td>
<td>7%</td>
</tr>
<tr>
<td>9</td>
<td>8015</td>
<td>8399</td>
<td>8460</td>
<td>5%</td>
</tr>
<tr>
<td>10</td>
<td>2860</td>
<td>2992</td>
<td>3039</td>
<td>2%</td>
</tr>
<tr>
<td>Not known</td>
<td>1392</td>
<td>1534</td>
<td>1705</td>
<td>1%</td>
</tr>
<tr>
<td>Grand Total</td>
<td>174,011</td>
<td>183,356</td>
<td>185,447</td>
<td>100%</td>
</tr>
</tbody>
</table>

* IMD decile: ‘1’ is the most deprived and ‘10’ the least

Index of Multiple Deprivation (IMD) encompasses a dataset of deprivation measures for small areas ‘Lower-layer Super Output Areas’ (LSOA) of a similar size (typically 1,500 residents or 650 households), which is weighted by: income deprivation (22.5%); employment deprivation (22.5%); education, skills and training deprivation (13.5%); health deprivation and disability (13.5%); crime (9.3%); barriers to housing and services (9.3%); living environment deprivation (9.3%) (GOV.UK, 2016).

d. data on inappropriate admissions

![Graph showing data on inappropriate admissions]

<table>
<thead>
<tr>
<th>Year</th>
<th>Left before treatment</th>
<th>Left refusing treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013/14</td>
<td>5181</td>
<td>1753</td>
</tr>
<tr>
<td>2014/15</td>
<td>4791</td>
<td>1243</td>
</tr>
<tr>
<td>2015/16</td>
<td>6365</td>
<td>1171</td>
</tr>
</tbody>
</table>
### e. data on environmental conditions

(*heat-map* of attendances by time-of-day and month-of-year)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>00:00-00:59</td>
<td>328</td>
<td>333</td>
<td>338</td>
<td>373</td>
<td>379</td>
<td>332</td>
<td>288</td>
<td>312</td>
<td>332</td>
<td>365</td>
<td>341</td>
<td>313</td>
<td>309</td>
<td>4343</td>
</tr>
<tr>
<td>01:00-01:59</td>
<td>241</td>
<td>270</td>
<td>271</td>
<td>293</td>
<td>297</td>
<td>301</td>
<td>251</td>
<td>254</td>
<td>296</td>
<td>294</td>
<td>263</td>
<td>254</td>
<td>236</td>
<td>3521</td>
</tr>
<tr>
<td>02:00-02:59</td>
<td>192</td>
<td>224</td>
<td>186</td>
<td>224</td>
<td>247</td>
<td>228</td>
<td>198</td>
<td>175</td>
<td>215</td>
<td>227</td>
<td>211</td>
<td>231</td>
<td>214</td>
<td>2772</td>
</tr>
<tr>
<td>03:00-03:59</td>
<td>189</td>
<td>190</td>
<td>202</td>
<td>220</td>
<td>223</td>
<td>205</td>
<td>176</td>
<td>165</td>
<td>181</td>
<td>214</td>
<td>187</td>
<td>194</td>
<td>150</td>
<td>2496</td>
</tr>
<tr>
<td>04:00-04:59</td>
<td>171</td>
<td>204</td>
<td>176</td>
<td>219</td>
<td>202</td>
<td>160</td>
<td>176</td>
<td>193</td>
<td>155</td>
<td>194</td>
<td>177</td>
<td>194</td>
<td>175</td>
<td>2396</td>
</tr>
<tr>
<td>05:00-05:59</td>
<td>142</td>
<td>162</td>
<td>146</td>
<td>195</td>
<td>201</td>
<td>155</td>
<td>165</td>
<td>145</td>
<td>168</td>
<td>175</td>
<td>150</td>
<td>193</td>
<td>158</td>
<td>2155</td>
</tr>
<tr>
<td>06:00-06:59</td>
<td>176</td>
<td>226</td>
<td>172</td>
<td>195</td>
<td>177</td>
<td>167</td>
<td>170</td>
<td>169</td>
<td>186</td>
<td>191</td>
<td>196</td>
<td>195</td>
<td>162</td>
<td>2382</td>
</tr>
<tr>
<td>07:00-07:59</td>
<td>231</td>
<td>264</td>
<td>222</td>
<td>222</td>
<td>227</td>
<td>247</td>
<td>245</td>
<td>219</td>
<td>237</td>
<td>270</td>
<td>240</td>
<td>243</td>
<td>252</td>
<td>3119</td>
</tr>
<tr>
<td>08:00-08:59</td>
<td>532</td>
<td>591</td>
<td>485</td>
<td>442</td>
<td>415</td>
<td>514</td>
<td>511</td>
<td>529</td>
<td>521</td>
<td>584</td>
<td>530</td>
<td>537</td>
<td>543</td>
<td>6734</td>
</tr>
<tr>
<td>09:00-09:59</td>
<td>756</td>
<td>976</td>
<td>853</td>
<td>830</td>
<td>776</td>
<td>864</td>
<td>843</td>
<td>835</td>
<td>664</td>
<td>912</td>
<td>852</td>
<td>895</td>
<td>817</td>
<td>10873</td>
</tr>
<tr>
<td>10:00-10:59</td>
<td>861</td>
<td>1027</td>
<td>908</td>
<td>962</td>
<td>892</td>
<td>962</td>
<td>948</td>
<td>841</td>
<td>875</td>
<td>966</td>
<td>921</td>
<td>966</td>
<td>937</td>
<td>12066</td>
</tr>
<tr>
<td>11:00-11:59</td>
<td>911</td>
<td>1154</td>
<td>974</td>
<td>973</td>
<td>982</td>
<td>1039</td>
<td>1032</td>
<td>946</td>
<td>998</td>
<td>911</td>
<td>955</td>
<td>1021</td>
<td>1002</td>
<td>12898</td>
</tr>
<tr>
<td>12:00-12:59</td>
<td>928</td>
<td>1087</td>
<td>919</td>
<td>1043</td>
<td>929</td>
<td>981</td>
<td>983</td>
<td>1012</td>
<td>1012</td>
<td>969</td>
<td>960</td>
<td>1065</td>
<td>1014</td>
<td>12902</td>
</tr>
<tr>
<td>13:00-13:59</td>
<td>895</td>
<td>1087</td>
<td>909</td>
<td>1021</td>
<td>895</td>
<td>992</td>
<td>1083</td>
<td>989</td>
<td>959</td>
<td>1001</td>
<td>989</td>
<td>978</td>
<td>997</td>
<td>12795</td>
</tr>
<tr>
<td>14:00-14:59</td>
<td>873</td>
<td>990</td>
<td>834</td>
<td>923</td>
<td>881</td>
<td>896</td>
<td>903</td>
<td>955</td>
<td>1011</td>
<td>980</td>
<td>979</td>
<td>973</td>
<td>893</td>
<td>12091</td>
</tr>
<tr>
<td>15:00-15:59</td>
<td>852</td>
<td>936</td>
<td>896</td>
<td>982</td>
<td>895</td>
<td>843</td>
<td>972</td>
<td>924</td>
<td>967</td>
<td>1001</td>
<td>871</td>
<td>1000</td>
<td>938</td>
<td>12077</td>
</tr>
<tr>
<td>16:00-16:59</td>
<td>905</td>
<td>1053</td>
<td>924</td>
<td>939</td>
<td>843</td>
<td>928</td>
<td>1044</td>
<td>972</td>
<td>919</td>
<td>1010</td>
<td>1034</td>
<td>976</td>
<td>958</td>
<td>12505</td>
</tr>
<tr>
<td>17:00-17:59</td>
<td>938</td>
<td>1071</td>
<td>903</td>
<td>922</td>
<td>929</td>
<td>922</td>
<td>1037</td>
<td>984</td>
<td>1031</td>
<td>1008</td>
<td>966</td>
<td>1004</td>
<td>1019</td>
<td>12734</td>
</tr>
<tr>
<td>18:00-18:59</td>
<td>957</td>
<td>1093</td>
<td>920</td>
<td>926</td>
<td>917</td>
<td>950</td>
<td>1074</td>
<td>1057</td>
<td>998</td>
<td>1134</td>
<td>1047</td>
<td>1068</td>
<td>1084</td>
<td>13225</td>
</tr>
<tr>
<td>19:00-19:59</td>
<td>902</td>
<td>971</td>
<td>868</td>
<td>875</td>
<td>813</td>
<td>920</td>
<td>914</td>
<td>1003</td>
<td>973</td>
<td>1040</td>
<td>1022</td>
<td>974</td>
<td>1042</td>
<td>12317</td>
</tr>
<tr>
<td>20:00-20:59</td>
<td>832</td>
<td>940</td>
<td>739</td>
<td>756</td>
<td>776</td>
<td>736</td>
<td>780</td>
<td>822</td>
<td>834</td>
<td>873</td>
<td>825</td>
<td>849</td>
<td>868</td>
<td>10630</td>
</tr>
<tr>
<td>21:00-21:59</td>
<td>669</td>
<td>768</td>
<td>626</td>
<td>682</td>
<td>677</td>
<td>662</td>
<td>704</td>
<td>658</td>
<td>721</td>
<td>743</td>
<td>770</td>
<td>747</td>
<td>732</td>
<td>9159</td>
</tr>
<tr>
<td>22:00-22:59</td>
<td>530</td>
<td>608</td>
<td>543</td>
<td>556</td>
<td>656</td>
<td>574</td>
<td>549</td>
<td>538</td>
<td>561</td>
<td>668</td>
<td>625</td>
<td>610</td>
<td>595</td>
<td>7613</td>
</tr>
<tr>
<td>23:00-23:59</td>
<td>394</td>
<td>486</td>
<td>421</td>
<td>443</td>
<td>486</td>
<td>448</td>
<td>482</td>
<td>410</td>
<td>421</td>
<td>523</td>
<td>483</td>
<td>464</td>
<td>449</td>
<td>5910</td>
</tr>
<tr>
<td><strong>Grand Total</strong></td>
<td><strong>14405</strong></td>
<td><strong>16711</strong></td>
<td><strong>14435</strong></td>
<td><strong>15216</strong></td>
<td><strong>14715</strong></td>
<td><strong>15026</strong></td>
<td><strong>15528</strong></td>
<td><strong>15107</strong></td>
<td><strong>15235</strong></td>
<td><strong>16253</strong></td>
<td><strong>15594</strong></td>
<td><strong>15944</strong></td>
<td><strong>15544</strong></td>
<td><strong>199713</strong></td>
</tr>
</tbody>
</table>
FACTOR 5: SSI FEEDBACK

Reciprocally, both clinical and management staff agreed that each component of ‘factor 5’, had significant bearing on A&E’s performance. Salient points being:

**Age:**

“working here as long as I have, you notice more and more elderly patients coming through our doors. The longer people live, the more they’ll need A&E”

**Ethnicity and comorbidity:**

“I remember a Polish patient who came in recently with multiple injuries and mental health issues, no relatives in the UK and who couldn’t speak a word of English. To cut a long story short, let’s just say, by the time we found out where he was from, got an interpreter, and treated him… we’d definitely breached the 4-hour target”

**Socioeconomic deprivation:**

“we must live in one of the most deprived areas in the country and sometimes see the worst of people. I’d be interested in the 4-hour target information from leafy Surrey compared to what we get through at East Lancs”

**Geographic location:**

“obviously, A&E centralised to Blackburn leaving a massive catchment area. The biggest problem is people waiting at home longer and taking longer to get here, which means presenting here in a worsened condition”

**Environmental conditions:**

“you have a good idea when the busy periods are during the day and like during winter, but that’s also when we have high staff sickness rates”

**Inappropriate attendances:**

“you just know when patients haven’t even attempted to see their GP, they know if they came here, they’d be seen quicker. But what can you do… you still have to give them exactly the same attention as someone who genuinely needs our service”
FACTOR 5: DISCUSSION

The ‘real-life’ tangibility of this factor and staff’s perception of its effect on A&E performance was obvious from the results of the SCQ, where it scored 234 out of 260 (rank 2nd) on Q.24, with a 42% ‘10-score’. Factor 5, also scored 92.3% positive bias on Q.25, with just 6% neutral (across all sub-factors except comorbidity and deprivation), and 1.7% negative (for ethnicity and age).

Narrative from the SSI, was predominantly supportive for each element, from which key points are summarised and presented per sub-factor alongside SDA:

a. Age: SDA illustrated an escalating trend for age of the population - particularly the elderly. Figures showed a 12% rise for patients between 60-69; and 10% each for 70-79-year-olds and over 80’s; meaning that over 60’s accounted for 22% of admissions since 2013. This supports SSI feedback and literature claiming an increasing number of elderly patients attending A&E (Blunt, 2014).

b. Ethnicity: over 70% of attendees were white (British and Irish) remaining stable since 2013. Most ethnic minorities (with the exception of Bangladeshi/British Bangladeshi) saw an increase in percentage, including mixed races of each variant. East Lancashire has a high ethnic minority population; SSI feedback from clinical staff, alluded to higher degrees of diabetes and heart-disease amongst minority ethnic backgrounds, corroborating Larkin (2011).

c. Socioeconomic deprivation: accounts of A&E attendees during SSI and feedback from the SCQ alluded to the local community, with dialogue such as “one of the worst areas in the country”. SDA confirms an increase in each IMD (from 1 to 10), with 63% of patients representing the top three most deprived LSOA.

d. Comorbidity: even though SCQ and SSI agree this is an on-going concern, due the complexity of acquiring this data (i.e. multi-level analysis of patient records and in-patient/re-admission follow-ups), specific case study data was unobtainable. Research conducted by ‘QualityWatch’ in 2014, discovered A&E waiting times increased for patients in proportion to the number of ‘long-term conditions’ (LTC) diagnosed (Blunt, 2014). However, this only accounts for LTC’s and not for the vast range of comorbidities.
e. **Geographic distance:** both SCQ and SSI results indicated distance, location and transport, had a detrimental effect on patients arriving at A&E. A detailed national analysis in 2014, showed Pendle and Burnley districts (since the closure of Burnley’s A&E) had the largest swing of admissions over 20km in the UK, with an increase of 144% and 216% respectively (Roberts, et al., 2014, p. 26).

Yet, in the same report, a case study conducted (over two years) after the A&E at Burnley was closed, stated “despite the increase in distance to A&E, there was no evidence that emergency admissions were impeded by the change in either district”; and “numbers of emergency admissions remained broadly consistent with previous levels for 18-months after the closure, and then increased” (Roberts, et al., 2014, p. 27). Figures and causes for escalations after this period were not presented. Additionally, ambulance admissions have only seen average variations of 1.5%, since 2013 (from 48,781 to 49,995).

f. **Environmental conditions:** SCQ and SSI feedback was of the opinion winter months meant more admissions due to slips (trips and falls), flu, and the exacerbation of complicated conditions such as asthma and chronic obstructive pulmonary disease (COPD) - supporting appropriate literature (Marno, et al., 2006). Similarly, a hotter environment sees conditions such as heat-stroke and sunburn on top of everything else.

Although the aforementioned patient conditions align with literature, the ‘heat map’ shows a certain level of uniformity for ‘attendance volumes’ throughout the calendar year - by month and time-of-day. March was the busiest month and February the quietest. Seasonally, the winter period (November to January) was marginally quietest seeing 44,957 patients; Spring (February to April) 45,551; Summer (May to July) 47,791 and Autumn (August to October) 45,870. The difference between busiest and quietest periods was 2834 (6.3%). The SDA for ELHT also matches national monthly trends (The King's Fund, 2016) but not the opinions of A&E staff.
Chapter 4 - findings and analysis

g. Inappropriate admissions: SQC results rated this sub-factor the highest score overall, with 81% ‘strongly agreeing’ to its effect on A&E performance. SSI feedback isolated ‘GP access’, ‘111 referrals’ and ‘better education’ in the community’ as main causes.

External SDA supports part of this, suggesting between “10% and 40%” of admissions could be treated elsewhere; but infers the ‘NHS 111’ service, in 2014, only advised 6% of patients to A&E (from 12-million calls) - comparing favourably to the 9% referred by its predecessor ‘NHS Direct’ (Blunt, et al., 2015, pp. 12,13). From a ‘4-hour’ perspective, inappropriate admissions have an average throughput time of 108-minutes; so performance analysts propose these attendees (with no significant diagnosis), actually aid the target (Blunt, et al., 2015).

Another argument also supported by Blunt, et al. (2015), surfaced during SSI, implying this type of patient - particularly during busy periods - has the tendency to contribute to ‘exit block’; because uncertainty of exact ailment (combined with a “let’s be on the safe side” risk-factor) leads to hospital admission.

The general opinion from all staff was, regardless of whether-or-not such patients inappropriately presented in A&E, they would receive treatment in some form or other; which makes isolating secondary data difficult. SDA since 2013, did reveal an average of 7000 patients a year either refusing treatment, or leaving before treatment. The basic A&E administration cost is £124 per attendee (even if treatment was not provided), which calculates to £934,340 in 2015/16 (£2.54m since 2013) of unallocated spend.

CHAPTER SUMMARY

Each factor of the conceptual framework has been analysed within the practical setting of A&E. Based on these findings, conclusions will be presented in the next chapter, alongside areas for further research.
CHAPTER 5

Conclusions and alternative courses of action based on the research findings
CHAPTER 5: CONCLUSION

The research question asked “to what extent can performance in the NHS be measured”. Two research objectives were used to investigate this: against which, the conclusions will be documented.

OBJECTIVE 1:

Critically evaluate academic models of ‘organisational effectiveness’ and ‘performance measurement’ - identifying linkages and key components, which contribute towards A&E performance measurement

A performance measurement system should exemplify an organisation’s activities, so it can learn and adapt based on its assessment (Otley, 1999; Adler, 2011; Agostino & Arnaboldi, 2012). Literature relating to organisation performance, quality healthcare and organisational effectiveness (OE) was critically reviewed - followed by an in-depth assessment of the ‘CQF regulatory framework for A&E’. It was evident that A&E aligned with an ‘open systems’ perspective i.e. its individuals, groups, processes and interactions are interconnected with the rest of the hospital and the external environment (Stacey & Mowles, 2016).

However, the CQC regulatory framework (albeit a robust and thorough PMS) is pertinent to an ‘internal process’ model of OE, because it focusses predominantly on processes, outputs and outcomes of a comprehensible ‘internal system’ (Martz, 2013). These facets do feature in open systems and are undoubtedly central to delivering optimum performance; nonetheless, by not accounting for external factors, the CQC’s PMS demonstrates fundamental flaws in both design and application.

Firstly, “emphasis on internal processes may distract from macro-environmental changes that make the organisation relevant”; and secondly, “external factors not specifically addressed may cause false, or inaccurate performance measurement” (Martz, 2013, p. 394).

This is further explained in ‘areas for further research’.
OBJECTIVE 2:

Rigorously analyse whether the organisation, CQC regulatory framework and 4-hour national targets account for all these contributing factors when measuring A&E performance

Continuing from objective 1, categorised factors of A&E (as an open system), were researched in the practical setting, where the following conclusions were drawn:

FACTOR 1: VISION, MISSION AND VALUES

There was clear indication from the clinical staff of pride for the care they provide, and a sense of purpose within the community they serve; reinforcing nursing and professional values. However, pride and purpose was offset with an overarching feeling of disengagement from the organisation. This was further evident, because even though ‘safe personal and effective’ was iterated throughout the ranks, most clinical staff (during SSI) were unaware of ELHT’s corporate strategy.

Discussions around having their own vision, mission and values were aired - though this could potentially contribute towards further alienation. Optimum organisational performance is ensured when emotional engagement is achieved and individual values and purpose are synchronised with the organisation’s (Stacey & Mowles, 2016). Research acknowledged this in principal, but actual beliefs were contrasting and asynchronous.

FACTOR 2: LEADERSHIP AND CULTURE

Despite evidence of multi-disciplinary team-working on the ‘shop floor’ (particularly during hectic shifts), prevalent accounts of leadership and management (as joint processes) at strategic and operational levels, were of ‘false hierarchies’ and ‘lack of information sharing’. Leadership training was doubted, along with the choice of leaders, culminating in detachment with some managers and senior staff across all disciplines.
This view - universally moulded from behaviours, ideas and emotions of staff towards their leaders - is entrenched into the “emotional atmosphere” of A&E’s culture (Schein, 1990; Stacey & Mowles, 2016, p. 148). Thus, providing evidence that work is needed to bridge gaps; improving engagement and communication (across ranks and disciplines) accordingly.

Moreover, linkages to ‘factor1’ become translucent and therefore, escalates the need for strong leadership to embed organisational vision and values into A&E culture - a key element of performance measurement (Ukko, et al., 2007).

**FACTOR 3: WORK ENVIRONMENT MANAGEMENT SYSTEMS AND CONTROL**

A&E’s policies and procedures are robust and comprehensive. That said, updates (where applicable) will need to be timely and relevant staff will require ‘protected time’ to accomplish this. Lapses and consequently outdated polices will be exposed by the CQC, with ensuing repercussions.

Substantiated from annual statements, budgetary control is non-existent - showing a cycle of overspending against increasing budgets. Reducing agency and locum staff, alongside effective management of staff rotas are key target areas. Also, awareness across A&E is needed on the NHS’ “productivity and efficiency agenda” (Department of Health, 2016, p. 7).

Concerns around work environment are trifold: facilities are generally perceived as being too small; there are issues around patient’s privacy and dignity; and not enough mental illness provisions. Hence, revisions and benchmarking is necessary. A ‘quick-fix’ solution is not readily available, as substantial costs needed to enable reconstructive/expansion work, will undoubtedly be inflated by the PFI element of the hospital build (Gaffney, et al., 1999).

Medical devices in A&E are current and technologically sound - providing caregivers with adequate tools to aid quality care. In contrast, IT (primarily hardware), needs modernising in conjunction with medical equipment. Any administrative task requiring IT, is undertaken at a central point on limited numbers of computers, which are slow, outmoded, and do not provided clinicians who are constantly ‘on the move’, with a mobile solution. A slicker, more integrated solution is essential.
FACTOR 4: HUMAN RESOURCE MANAGEMENT

Whilst a theme of ‘fire-fighting’ was pervasive, it was iterated most frequently throughout this particular factor - along with rhetoric such as ‘thrown in at the deep end’, burnout’, ‘hectic’, and ‘chaos’. Thus, evidencing disparity between job design and demands of the workplace. Granted, A&E is short-staffed and attracts a ‘certain type’ of individual; furthermore, demands will always be capricious. Nonetheless, these elementary prerequisites need managing - not only because of the overarching, adverse effect it has on individual and organisational performance (Hall, 2008), but also, to safeguard staff’s wellbeing and retention. Harmonising job design, to individuals and the workplace, is pivotal to reducing work-related anxieties and stress (Ahmadi & Rakhsh, 2012).

There are signs that training and competencies have improved. Again, protected time for the educators is crucial to sustain this upward trajectory - otherwise standards could slip, along with staff’s core skills.

The personal development review (PDR), appraisal system was heavily criticised and judging from evidence, will require considerable effort from management to promote its inherent benefits to nursing staff. Empirical evidence suggests appraisal systems will always generate levels of disgruntlement (Ikramullah, et al., 2016); however, engagement with staff and planning their PDR’s (two basic elements) have at times, been inexcusably overlooked.

Outcomes for motivation and rewards are heavily linked to the aforementioned sub-factors and consequently, correlation was negatively biased. Improvements across said components of HRM, will initiate positive reactions. However, individual motivation and rewards, manifested from self-purpose (whether that be professional, medical or nursing driven) is simply not enough - this must be reciprocated by the organisation.

Lastly on the topic of rewards, A&E staff did not stipulate the need for special accolades; however, acknowledgement of (collective) efforts must be central to a revised engagement strategy.
FACTOR 5: EXTERNAL/ENVIRONMENTAL INFLUENCES

Collectively, this factor was proven to influence A&E performance. Individually:

a. A&E is seeing more elderly patients, who take longer to treat (Larkin, 2011)
b. Attendances from ethnic minority backgrounds is generally increasing
c. East Lancashire is one of the most deprived areas in the UK and it’s A&E attendances reflect this
d. Comorbidity is a local and national concern; higher levels of morbidity are associated with increased A&E admissions (Blunt, 2014) and increased mental illness comorbidity in the ‘over-40s’, adds to this (Larkin, 2011)
e. Geographic distance and its effect on A&E admissions is inconclusive. A portion of external SDA aligns with staff accounts of this sub-factor’s influence. However, a (externally conducted) case study on East Lancashire, together with internal SDA on ambulance admissions suggest otherwise
f. Environmental conditions on A&E attendances was equally inconclusive. Staff accounts claimed ‘peaks and troughs’, while SDA proved a level of consistency thorough the calendar year. Neither took patient conditions into consideration
g. Inappropriate admissions have an adverse effect on A&E performance and contribute to access and exit block, alongside sizeable financial implications. Access to GPs combined with a lack of understanding in the community (of when to use emergency services) contributes to unnecessary admissions.

The overall impact of ‘factor 5’ is extensively linked to the findings of ‘objective 1’ i.e. these elements are the ‘external energies’ forming the input of an open system, integral to its overall performance (Katz & Kahn, 1978; Martz, 2013). These will be discussed further in the next section.

AREAS FOR FURTHER RESEARCH

SENIOR MANAGERS ON-CALL

Further research is needed into exactly what type of training is given to ‘Senior Managers on-call’ (SMOC) to oversee A&E management out-of-hours. Accounts of dictatorial behaviour and non-clinical managers being asked to move patients was out of context and requires attention.
INTRODUCING COEFFICIENTS

Supported by accounts from the SSI (and Q.32 of SCQ), there was general consensus for the need to ensure a “level playing field” when measuring A&E performance: for example, an A&E department in an affluent location, with more space, better IT and higher morale amongst staff, would need “equal pegging” with ELHT, who had limited room, poor IT and low staff morale. Delivering quality care within 4-hours are homogeneous outputs (Mintzberg, 1978) unchanged throughout emergency care. Confident with mechanisms in place to administer this output, A&E staff were not troubled with patient turnaround, irrespective of ailment. However, the general concern centred on the variability of its input and the after-effects it has on ‘access/exit block’ and ultimately, the 4-hour target. (RCEM, 2014).

Open systems theory claims environmental adaptation “determines the stable equilibrium” essential to maintain balance to its processes and output; likewise, regulation of “stability, consistency and harmony” between boundaries ensures organisational success (Stacey & Mowles, 2016, p. 132).

Hence, further research to ascertain the viability of creating ‘coefficients’ for each element of the open systems model of A&E is necessary. This proposal encompasses a ‘patient indicator’ coefficient for the ‘input’; coefficients for work-space, IT systems, equipment, staffing levels etc., for the ‘throughput’; combined with an ‘exit block’ coefficient for the output. Once established, these are calculated into the percentages of the ‘4-hour’ target. (This notion is further explained within the re-conceptualised framework in ‘Part 2’ of this paper).

Research will be complicated, involving data collection from multiple case studies at a national level; but standardised mortality ratios and deprivation indices, demonstrates it can be achieved. Comparably, companies such as ‘Opta’ (amongst others) in the football industry, uses live statistics to analyse players across all divisions - returning with a standardised score for each (Opta, 2016).

Although, a comparable adaptation will not solve the problem of A&E overcrowding, it will provide an accurate ‘performance index’, which accounts for all factors of performance.
An accumulation of interwoven mechanisms within the NHS, make it the most complicated establishment in the UK (Elkind, 2011). In addition to these complexities, A&E performance is idiosyncratic. Not only does it have to comply with every quality measure stipulated by the CQC; it needs to accomplish everything within four hours, for each patient.

This paper asked ‘to what extent, can performance be measured’. The CQC, regulate certain elements of PM, but not everything. Equally, shortcomings of the 4-hour target, are acknowledged, even by central government (Baker, 2015). Testament for the need to revise A&E PMS’ to encompass all factors.

To put this into context, this case study investigated a conceptualised ‘open systems model’ of A&E, where it was obvious that ‘inputs’ are unaccounted and certain factors demonstrated poor performance. Therefore, it would be difficult at this stage, to fully-associate this with the A&E’s poor CQC rating and below-average 4-hour target, both factors are measured in isolation and neither comply with literature that suggests a PMS should embody an organisation’s activity.

The roots to answering the research question subsists in transforming the incumbent, ‘systemically’ focussed approach, which accounts for only a portion of key performance indicators. Transformation commences by adapting the emerging changes in health and social care, to replace this approach with one that is dynamic and responsive (Paliokaitė & Pačėsa, 2015; Larkin, 2011; Stacey & Mowles, 2016).
CHAPTER 6

A list of recommendations (including implementation schedule) based on findings and conclusion
CHAPTER 6: RECOMMENDATIONS

Recommendations follow in order of operational importance, though implementation can be overlapped (see schedule):

a. Although narrative from senior management and staff alluded to creating a bespoke compilation, A&E’s ‘vision and values’ must align with ELHT’s. Visibility of these is essential for staff to familiarise themselves. Laminated boards, as seen across the main hospital foyer, should be installed in the department. Assistance from ELHT’s ‘engagement office’ is paramount - a key recommendation would be to kick-start this process with a ‘big conversation’, where staff from all ranks of A&E are gathered in a room to air views and discuss problems. This engagement session is the gateway to alleviating the majority of A&E’s HRM concerns.

b. Because of their unique position, there is meaningful benefit for A&E to create their own mission. According to Stacey and Mowles (2016, p. 85), mission relates to the present operational state and an organisational mission statement captures the “emotional support” of its workers. Moreover, opportunity should be given to team members to ‘coin’ a mission statement - by doing so, this will improve staff’s allegiance and commitment.

c. A full review of A&E’s leadership structure and appropriate training requirements is vital (see also recommendation 9). It is also important to filter through the ranks that leadership processes involve both leaders and followers - thus, consideration of emergent leaders is paramount to overturn ideas of false hierarchies (Northouse, 2012). Utilisation of internally-run ‘action centred leadership’ (ACL) courses should be promoted to all staff, alongside the NHS partnership course with the Institute of Leadership and Management (ILM), for existing and emergent leaders.

d. Budget training is vital for all senior nursing staff. ‘Finance training for non-financial staff’ is an internally-run course, which is facilitated by ELHT’s Finance department and Learning and Development (L&D) team. This half-day class, provides an overview of ELHT’s budget structure, plus an understanding of the importance of budgetary control and its implications for departments. Attending this will promote and cascade prudence across the nursing ranks.
Chapter 6 - recommendations

e. (Electronic) e-Rostering training is needed (for all staff organising rotas) to expedite replacement of traditional paper rotas - not only is this a national problem (and subsequent recommendation) highlighted in the Carter review (Department of Health, 2016), it has been a persistent source of staffing and pay budget issues in A&E. Electronic rotas will ensure tighter control and improved planning of shifts, reduce agency and locum staff, and as a result - kerb the overspend.

f. Liaise with human resources business partner (HRBP) to update job descriptions and review of nursing and medical roles in A&E. This guarantees alignment to new standards and gives staff a clearer appreciation of their position within the department. Detailed induction policies will also require revamping to allow any new starts adequate ‘settling-in’ periods.

g. An urgent evaluation of the PDR process for A&E nursing staff. As part of ‘continuous professional development’, medical staff have clear structured appraisal, but nurses do not have a similar policy. Assistance from the human resources and learning and development teams will be needed to schedule these dates online, and protected time ring-fenced for educators, reviewers and reviewees to commit to the process in its entirety.

h. An overhaul of IT systems will improve flow of information through the A&E ‘shop floor’. Extra terminals with wireless, portable solutions ensures mobility and moderates staff congregating around the central desk. ELHT are in the process of upgrading a Trust-wide information solution - because A&E’s requirements are different to general wards and departments, a working group (representing opinions from staff at all levels) must be included in the project committee, to request a tailored installation.

Further research:

i. Approach ELHT’s research office with the proposal to follow up research on the achievability of coefficients as highlighted in the ‘areas for further research’. Guidance and further avenues will be sought, along with appropriate funding if research follow-up is granted. Alongside investigating components of ‘factor 5’, this research will also entail a review of ELHT’s facilities (highlighted as an issue by staff) as part of the benchmarking exercise.
<table>
<thead>
<tr>
<th>REF</th>
<th>OUTLINE</th>
<th>PROCESS</th>
<th>DRIVEN BY</th>
<th>INVOLVES</th>
<th>START/DURATION</th>
<th>COSTS</th>
</tr>
</thead>
</table>
| 1.  | Reinforce vision and Vision and values to A&E staff | a. Meet with Divisional Manager, Clinical Director and Directorate Manager, Accountant and Matron for A&E to discuss proposal | Divisional Manager Clinical Director Directorate Manager | Engagement team, communication team, PFI partner, all A&E staff | a. July 2016 - x1 one-hour meeting  
    b. July 2016 - x1 one-hour meeting - x3, two-hour conversations  
    c. July 2016 - Discussion with Comms + PFI labour | a. Hourly costs of x6 senior managers  
    b. Hourly costs of senior manager and A&E staff  
    c. Cost of boards + PFI labour est. £1000 |
|     |         | b. Discussions with Engagement team on logistics of ‘big conversation event’ and organise |          |          |                |       |
|     |         | c. Liaise with Communications team to acquire laminated boards and ‘PFI’ contractors re installation in A&E |          |          |                |       |
| 2.  | Create A&E mission statement | a. Meet with Divisional Manager, Clinical Director and Directorate Manager, Accountant and Matron for A&E to discuss proposals | Divisional Manager Clinical Director Directorate Manager | Engagement team, communication team, IT services, all A&E staff | a. July 2016 - x1 one-hour meeting  
    b. August 2016 - x1 one-hour meeting  
    c. August 2016 - x1 one-hour meeting with IT services + portal creation (2-4 hours) | a. Included in meeting REF 1.  
    b. Hourly costs of x2 senior managers  
    c. Hourly cost of IT services staff to create portal |
|     |         | b. Set the boundaries for what needs to be included in the mission statement with Directorate Manager |          |          |                |       |
|     |         | c. Create an online ‘portal’ for entry submissions |          |          |                |       |
| 3.  | Review of A&E leadership structure and training programme | a. Meet with Divisional Manager, Clinical Director and Directorate Manager, Accountant and Matron for A&E to discuss proposal | Divisional Manager Clinical Director Directorate Manager | Assigned leaders, Emergent leaders (A&E staff), Learning and Development team, | a. July 2016 - x1 one-hour meeting  
    b. August 2016 - Internal course run over 3 days  
    c. September 2016 internal course run across 9 months (3 hour sessions) | a. Included in meeting REF 1.  
    b. Hourly costs of 20 staff for three days and staff to cover  
    c. £2500 x6 + hourly cost to cover six staff during training |
|     |         | b. Liaise with HRBP to identify training needs and promote in-house ACL course |          |          |                |       |
|     |         | c. Identify gaps and offer ILM training course for senior leaders |          |          |                |       |
| 4.  | Budget training for senior A&E staff | a. Meet with Divisional Manager, Clinical Director and Directorate Manager, Accountant and Matron for A&E to discuss proposal | Directorate Manager Divisional Accountant | Learning and development team, Senior A&E staff | a. July 2016 - x1 half-hour meeting  
    b. September 2016 - Internal half-day course | a. Included in meeting REF 1.  
    b. Hourly costs of 20 staff for 0.5 days and staff to cover |
<table>
<thead>
<tr>
<th>REF.</th>
<th>RECOMMENDATION</th>
<th>OUTLINE OF PROCESS</th>
<th>DRIVEN BY</th>
<th>INVOLVES</th>
<th>START/DURATION</th>
<th>COSTS</th>
</tr>
</thead>
</table>
| 5.   | Roll-out of e-Rostering training | a. Meet with Divisional Manager, Clinical Director and Directorate Manager, Accountant and Matron for A&E to discuss proposal  
b. Meet with e-Rostering Team to facilitate  
c. Roll-out training | Matron for A&E, HR Business Partner | e-Rostering team, Senior staff and shift-coordinators | a. July 2016 - x1 one-hour meeting  
b. July 2016 - x1 half-hour meeting  
c. August 2016 across 6 weeks | a. Included in meeting REF 1.  
b. Hourly costs of senior managers + e-Rostering team  
c. Hourly costs of 20 staff for 2 hours and staff to cover |
| 6.   | Update of job descriptions and design | a. Meet with Divisional Manager, Clinical Director and Directorate Manager, Accountant and Matron for A&E to discuss proposal  
b. Meet with Clinical Director, HR Business Partner and educators to review  
c. Update process | Clinical Director, HR Business Partner, Practice education facilitators | All A&E staff | a. July 2016 - x1 one-hour meeting  
b. August 2016 - x1 one-hour meeting  
c. Template creation and review two-three weeks’ work | a. Included in meeting REF 1.  
b. Hourly costs of x2 senior managers and x2 Educators  
c. Fit into educators work plan |
| 7.   | Review of PDR process | a. Meet with Divisional Manager, Clinical Director and Directorate Manager, Accountant and Matron for A&E to discuss proposal  
b. Meet with Matron and HRBP and Learning and Development team to review  
c. Schedule and initiate PDR regime | Matron and HR Business Partner | All A&E nursing staff | a. July 2016 - x1 one-hour meeting  
b. July 2016 - x1 one-hour meeting  
c. August 2016 - x1.5 hour PDR meeting for each staff | a. Included in meeting REF 1.  
b. Hourly costs of x2 senior managers and L&D team  
c. Hourly costs of 100+ nurses and auxiliary staff for 1.5 hours |
| 8.   | Upgrade to IT systems | a. Meet with Divisional Manager, Clinical Director and Directorate Manager, Accountant and Matron for A&E to discuss proposal  
b. Meet with Matron and IT Services team  
c. Schedule a site-survey and finalise specification for wider roll-out  
d. Include key staff in IT rollout committee | Matron for A&E | Key staff with an interest in IT and information systems | a. July 2016 - x1 one-hour meeting  
b. August 2016 - x1 one-hour meeting  
c. August 2016 - x2 hours site survey  
d. August 2016 onwards - regular and ad hoc meetings attending | a. Included in meeting REF 1.  
b. Hourly costs of x3 senior managers  
c. Hourly cost of IT services technician + Est cost of medical grade PC = £1200 x8  
d. Hourly costs of staff to attend meetings |
## Area for further research

<table>
<thead>
<tr>
<th>REF.</th>
<th>RECOMMENDATION</th>
<th>OUTLINE OF PROCESS</th>
<th>DRIVEN BY</th>
<th>INVOLVES</th>
<th>START/DURATION</th>
<th>COSTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>9.</td>
<td>Review Senior Manager on-call training if needed (in conjunction with recommendation 3.)</td>
<td>a. Meet with Divisional Manager, Clinical Director and Directorate Manager, Accountant and Matron for A&amp;E to discuss proposal</td>
<td>Divisional Manager</td>
<td>Senior Manager on-call rota</td>
<td>a. July 2016 - x1 one-hour meeting</td>
<td>a. Included in meeting REF 1.</td>
</tr>
<tr>
<td>10.</td>
<td>Review coefficients to see if these can be incorporated into PMS</td>
<td>a. Meet with Divisional Manager, Clinical Director and Directorate Manager, Accountant and Matron for A&amp;E to discuss proposal</td>
<td>Author, Director of Research</td>
<td>Multiple case study research</td>
<td>a. July 2016 - x1 one-hour meeting</td>
<td>a. Included in meeting REF 1.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>b. Meet with Director of Research to look into feasibility</td>
<td></td>
<td></td>
<td>b. August 2016 - x1 one-hour meeting</td>
<td>b. Hourly costs of x2 senior managers</td>
</tr>
<tr>
<td></td>
<td></td>
<td>c. Meet with Head of Performance to understand limitations</td>
<td></td>
<td></td>
<td>c. As above</td>
<td>c. Hourly costs of x2 senior managers</td>
</tr>
<tr>
<td></td>
<td></td>
<td>d. Produce a business case, present to panel and secure funding if approved</td>
<td></td>
<td></td>
<td>d. September 2016 - one month</td>
<td>d. Fit into existing work plan (TBC) or secondment if needed</td>
</tr>
<tr>
<td></td>
<td></td>
<td>e. Undertake research if all points are successful</td>
<td></td>
<td></td>
<td>e. October</td>
<td>e. Funded research time needed TBC.</td>
</tr>
</tbody>
</table>

*Figure 23: Outline implementation programme*
APPENDIX 1: FOUR PREVALENT MODELS OF ORGANISATIONAL EFFECTIVENESS

A critical summary of four extant perspectives of OE follows:

**Goal Model**

This approach assumes organisations are “rational, deliberate and ‘goal-seeking’” and their performance is based on how their ‘set goals’ are realised, which also means these goals must be realistic and measurable; and individuals involved, should be committed to their fulfilment (Latham & Locke, 1991; Martz, 2013, p. 387; Ashraf & Abd Kadir, 2012). Whetten and Godfrey (1988), elaborate on using these goals as being cognitive, motivational functions for ‘actors’ within the organisation and subsequent measurement then becomes a “natural consequence” of their acceptance (Martz, 2013).

Limitations of this model are exposed particularly due to miscalculations when comparing an ‘actual’ state i.e. the organisation, to an ‘archetypal’ state i.e. the goal (Etzioni, 1960), and therefore, confines the ability of evaluating organisational effectiveness (Martz, 2013).

**Open-systems model**

Proposed by Yuchtman and Seashore (1967), systems-model perspective, takes into consideration the organisation, it’s management systems, and its ‘input’ or “transactions between the environment” (Katz & Kahn, 1978, p. 20). The approach does not ignore organisational goals; instead, it considers them as part of a larger ‘system’, with the ascendency directed towards interlinking ‘processes’ i.e. “not only ‘what’ gets done, but ‘how’ it gets done” (Mullins, 2011; Martz, 2013, p. 388). For lucid evaluation, system boundaries must be clearly defined by the organisation’s purpose and also focus on sustainability, survival and growth; all of which contribute to overall performance (Ulrich, 2005).

Where organisations do not follow linear patterns or processes, measuring effectiveness can become complex; equally, because external forces (sometimes outside managerial jurisdictions) can impact a systems model, false conclusions can occur if these are incorrectly accounted and/or overlooked (Martz, 2013).
Internal process model

Similar to the systems model, the process perspective also recognises boundaries and their connection between resources and outputs (Ashraf & Abd Kadir, 2012). However, it does not account for external factors, instead concentrating efforts of effectiveness on an organisation’s internal processes and optimisation of its goals (Steers, 1976). By ‘shifting down’ the focus from an organisational-level to an individual-level, the process model attempts to reinforce support for objectives; suggesting synchronicity between company and employee goals i.e. if the individual is completely part of a system, then its effectiveness is optimal (Martz, 2013; Schermerhorn, et al., 2004).

Its obvious (and most significant) restriction occurs for complex, non-linear organisations; because of the exclusion of the impact of external forces, their ‘mutual causality’ do not feature (Cilliers, 1998).

Strategic Constituencies model

This model’s aim is to emphasise effectiveness and reduce “organisational turbulence” through all the important relationships between an organisation’s constituencies, or ‘stakeholders’ i.e. a high-performing company ensures the needs of all stakeholders are met (Schermerhorn, et al., 2004; Freeman, 2010, p. 8). To delineate boundaries, Fassin (2009), declares an organisation as having three stakeholder categories: a. internal (direct) stakeholders; b. pressure group (influencers); and c. external regulators (control). Unlike previous models, goals, systems and processes for the strategic constituencies model all derive from the criteria and demand of each stakeholder group - who may have bespoke sets of values and vested interests (Martz, 2013).

A major drawback of this model is its tendency of favouritism towards the most influential stakeholders and comparably, no clear method of differentiating interest between competing stakeholders - in essence, an organisation can assume effectiveness without competitive advantage, if all constituency targets are fulfilled (Kaler, 2006; Martz, 2013).
APPENDIX 2: THREE EXAMPLES OF OPEN SYSTEMS MODELS

A critical summary of three extant open systems models:

The ‘six box’ model

According to Marvin Weisbord, organisational management needed a viewpoint that was ‘simple enough and complete enough to improve quality decision making’ - this notion led to the formulation of his open, ‘six box model’ of diagnosis (Weisbord, 1976).

Factors within each box influence each other and in the opinion of Weisbord, are a systemic representation of management culture, which can be simplified to:

1. “The fit between ‘organisation and environment’ i.e. the extent to which purposes and structure support high performance and the ability to change conditions”; and/or
2. “The fit between ‘individuals and organisation’ i.e. the extent to which people support or subvert formal mechanisms intended to carry out an organisation’s purpose” (Weisbord, 1976, p. 430)
He continues, by proposing each box houses a ‘formal’ and ‘informal’ system; the formal system is ‘what should be done’ and the informal system relates to ‘what people actually do’ (Weisbord, 1976). An abridged explanation is as follows:

<table>
<thead>
<tr>
<th>Box</th>
<th>Description</th>
<th>Formal system</th>
<th>Informal system</th>
</tr>
</thead>
<tbody>
<tr>
<td>PURPOSE</td>
<td>The organisation's goals and the work needed to accomplish them</td>
<td>Goal clarity</td>
<td>Goal agreement</td>
</tr>
<tr>
<td>STRUCTURE</td>
<td>“Form follows function” Organisational structure by:</td>
<td>Functional, Program or Matrix?</td>
<td>How work is actually done, or not done?</td>
</tr>
<tr>
<td></td>
<td>‘Function’ i.e. specialists working together</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>‘Product’, program, or project i.e. teams of multi-skilled personnel</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>A mixture of both (Gulick, 1937)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RELATIONSHIP</td>
<td>Relationships between: people, departments/units; and people and technology</td>
<td>Who should deal with whom or what</td>
<td>How well do they do it? Quality of relations? Modes of conflict management?</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Which technologies should we use</td>
<td></td>
</tr>
<tr>
<td>REWARDS</td>
<td>Having a reward system (formal), does not mean people will act or feel rewarded (informal)</td>
<td>Explicit systems</td>
<td>Implicit, psychic rewards. What do people feel about payoffs?</td>
</tr>
<tr>
<td></td>
<td></td>
<td>What is it?</td>
<td></td>
</tr>
<tr>
<td>LEADERSHIP</td>
<td>Precision and understanding allows leaders to share and systematically monitor visions and values</td>
<td>What do top people manage?</td>
<td>How? Normative “style” of administration?</td>
</tr>
<tr>
<td></td>
<td></td>
<td>What systems in use?</td>
<td></td>
</tr>
<tr>
<td>HELPFUL MECHANISMS</td>
<td>Processes that bind the organisation together i.e. procedures, policies, reports, committees etc.</td>
<td>Budget system Management information</td>
<td>What are they actually used for? How they function in practice? How are systems subverted?</td>
</tr>
<tr>
<td></td>
<td>An effective organisation continually revives its mechanisms</td>
<td>Management information (measures?)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Planning</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Control</td>
<td></td>
</tr>
</tbody>
</table>

Figure 25: Diagnostic approach of ‘six box model - adapted from Weisbord (1976)
The ‘congruence’ model

“Management’s primary job is to make organisations operate effectively. Society’s work gets done through organisations and management’s function is to get organisations to perform that work”

(Nadler, et al., 1980, p. 35).

For Nadler and Tushman, this was the basic make-up of OE. Nonetheless, to apprehend an organisation’s ‘inherent complexities, enigmatic nature, mysteries and paradoxes’, they needed to conceptualise a ‘tool’, which led to the formulation of their ‘Congruence Model’ in the late 1970s (Nadler, et al., 1980).

<table>
<thead>
<tr>
<th>Inputs:</th>
<th>Collective factors or different sets of ‘givens’ that an organisation has to take into consideration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outputs:</td>
<td>What the organisation produces? How well it performs? How effective is it?</td>
</tr>
<tr>
<td>Transformational process:</td>
<td>The fundamental components and their respective interactions required to effectively transform inputs into outputs</td>
</tr>
</tbody>
</table>

Assuming the organisation’s outputs are optimised and predefined, the model can be expanded as:

Figure 26: Congruence Model - adapted from Nadler et al. (1982, p. 44)
### KEY ORGANISATIONAL INPUTS

<table>
<thead>
<tr>
<th>Input</th>
<th>Environment</th>
<th>Resources</th>
<th>History</th>
<th>Strategy</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Definition</strong></td>
<td>All factors, including institutions, groups, individuals, events etc. that are outside the organisation, but have a potential impact on the organisation.</td>
<td>Various assets to which the organisation has access, including: human resources, technology, capital, information, etc.,</td>
<td>The patterns of past behaviour, activity, and effectiveness of the organisation that may affect current organisational functioning.</td>
<td>The stream of decisions about how organisational resources will be configured to meet the demands, constraints, and opportunities within the context of the organisation's history.</td>
</tr>
</tbody>
</table>
| **Critical analysis features** | 1. What demands does the environment make on the organisation?  
2. How does the environment put constraints on organisational action? | 1. What is the relative quality of the different resources to which the organisation has access?  
2. To what extent are resources fixed rather than flexible in their configuration(s)? | 1. What have been the major stages or phases of the organisation's development?  
2. What is the current impact of such historical factors as strategic decisions, acts of key leaders, crises, core values and norms? | 1. How has the organisation defined its core mission?  
2. On what basis does it compete?  
3. What is its supporting strategies?  
4. What specific objectives have been set? |

### KEY ORGANISATIONAL COMPONENTS

<table>
<thead>
<tr>
<th>Component</th>
<th>Task</th>
<th>Individual</th>
<th>Formal organisation</th>
<th>Informal organisation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Definition</strong></td>
<td>The basic and inherent work undertaken by the organisation</td>
<td>The characteristics of individuals in the organisation</td>
<td>The formally devised structures, processes, methods etc. to perform tasks</td>
<td>The emerging arrangements including structures, processes, relationships etc.</td>
</tr>
</tbody>
</table>
| **Critical analysis features** | 1. Types of skills and knowledge needed for the work  
2. Rewards of the work  
3. Uncertainties of the work i.e. routineness, interdependencies etc.  
4. Inherent demands and constraints on performance | 1. Knowledge and skills individuals possess  
2. Individual needs and preferences  
3. Perceptions and expectancies  
4. Background factors (behavioural and demographic etc.) | 1. Organisational design i.e. structure, grouping, coordination and control mechanisms  
2. Job design  
3. Work environment  
4. Human resource management systems | 1. Leader behaviour  
2. Intra-group relations  
3. Informal working arrangement  
4. Communication and workplace influence patterns |

Figure 27: Congruence Model explained - adapted from Nadler, et al. (1982, pp. 39-41)
The ‘causal’ model of organisational performance and change

Elaborating on theories and methods of their peers, Burke and Litwin’s, 1992 model explores ‘causal linkages’ of an organisation’s performance against transformational change i.e. ‘what leads to what and how might this be changed?’ - all within a “cause-effect paradigm” (Burke & Litwin, 1992; Spangenberg & Theron, 2013, p. 29).

As per any typical ‘open systems’, the Causal Model also incorporates three sections: the ‘input’ and ‘output’ are self-explanatory. However, Burke and Litwin segregate the ‘throughput’ section into two levels: ‘transformational’ i.e. culture, leadership and strategy, which are mainly influenced by the ‘top-level of the organisation; and ‘transactional’ i.e. management, systems, motivation etc., which are variables, concerned with the daily operations of an organisation (Burke & Litwin, 1992).
Alongside Burke and Liwin’s literary rationale, these factors are further explained as:

<table>
<thead>
<tr>
<th>Component</th>
<th>Description</th>
<th>Literary reference(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>External environment</td>
<td>Conditions or situations outside the organisation i.e. economy, financial, political, social conditions etc.</td>
<td>Pfeffer and Salancik (1978); Drucker (1985)</td>
</tr>
<tr>
<td>Mission and Strategy</td>
<td>What the organisation’s executives/top-management want it to achieve and what employees believe is the organisation’s purpose</td>
<td>Porter (1985); Pearce &amp; David (1987)</td>
</tr>
<tr>
<td>Leadership</td>
<td>Distinctly different to management, consideration is given to leaders being role models, then setting values and ‘best practice’ for all to follow</td>
<td>Zaleznik (1977); Bennis &amp; Nanus (1985)</td>
</tr>
<tr>
<td>Culture</td>
<td>“The way things are done” in the form of ‘overt’ and ‘covert’ sets of rules and behaviours. Understanding history as an embodiment of culture, is also important.</td>
<td>Deal and Kennedy (1982) Schein (1983)</td>
</tr>
<tr>
<td>Structure</td>
<td>Hierarchical alignment of people and functions with appropriate levels of responsibility to aid communication, decision-making etc. and achieve organisational goals</td>
<td>Galbraith (1974), Duncan (1979)</td>
</tr>
<tr>
<td>Management Practices</td>
<td>What managers do as part of their operational duties to ensure strategy is enforced i.e. managing HR, materials and other resources - includes encouraging innovation.</td>
<td>Boyatzis (1982), Luthans (1988)</td>
</tr>
<tr>
<td>Systems</td>
<td>The policies, procedures and practices that determine the work i.e. management information, budgetary, HR, appraisal and reward systems</td>
<td>Flamholtz (1979), Keen (1981), Lawler (1981),</td>
</tr>
<tr>
<td>Climate</td>
<td>The relationships, expectations, feelings etc. between co-workers, management and the workplace.</td>
<td>James and Jones (1981), Michela, et al. (1988)</td>
</tr>
<tr>
<td>Task and individual skills</td>
<td>Skills, knowledge required and behaviour towards accomplishing tasks - effectively becoming the ‘job-person’ match</td>
<td>Maier and Verser (1982); Campion and Thayer (1987)</td>
</tr>
<tr>
<td>Individual needs</td>
<td>Predominantly psychological factors, which contribute to the actions of the individuals and therefore promote desire and worth</td>
<td>Hackman and Oldham (1980)</td>
</tr>
<tr>
<td>Motivation</td>
<td>How an individual, or a team’s behaviours is stimulated in order to complete actions and, accomplish goals and maintain job satisfaction</td>
<td>Evans (1986)</td>
</tr>
<tr>
<td>Individual and organisational performance</td>
<td>The outcome or results of the organisation and an indication of its efforts i.e. productivity, customer satisfaction, profitability and quality.</td>
<td>Cameron and Whetten (1980); Latham, et al. (1981)</td>
</tr>
</tbody>
</table>

Figure 29: Factors of the Causal Model - adapted from Burke & Litwin (1992)
### Appendix 3: The Honeycomb Methodology of Research Expanded

<table>
<thead>
<tr>
<th>ELEMENT &amp; FACTOR</th>
<th>OVERVIEW</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Philosophy</strong></td>
<td>There is much debate around clarity and indeed exact classifications of research philosophies from peers and scholars like. Suffice to say, complications for any researcher are likely to ensue (Mikans &amp; Acheampong, 2012). It is probably easiest to summarise this component as relating to an individual’s fundamental views of developing knowledge (Wilson, 2014). Figure 13, explains this further.</td>
</tr>
<tr>
<td><strong>Approach</strong></td>
<td>Research is often linked with either an inductive or deductive approach. If the researcher is interested in a process of ‘building a theory’ based on observations and findings, then an ‘inductive’ approach applies (Hyde, 2000). On the other hand, if a theory was to be applied to a research project in order to generate a new theory or develop a hypothesis, then a deductive approach is best suited (Wilson, 2014).</td>
</tr>
<tr>
<td><strong>Strategy</strong></td>
<td>Perhaps the most difficult aspect of research to classify and differentiate (Allwood, 2012). In short, quantitative research examines numerical data and samples and is often associated with a deductive research approach; while qualitative research is more concerned with narrative and insights to absorb opinions and has links with inductive studies (Wilson, 2014; Hyde, 2000; Saunders, et al., 2009). Combining, or mixing qualitative and quantitative strategies i.e. ‘mixed strategy approaches’, are also applicable in research - though it is here where much debate occurs on whether-or-not these are in fact ‘mixed’ or ‘layered’ strategic approaches (Allwood, 2012).</td>
</tr>
<tr>
<td><strong>Design</strong></td>
<td>Blumberg, et al. (2008), refer to this point as the planning stages of research, which usually incorporates details and timeframes. Wilson (2014), suggests the design element consists of the following:</td>
</tr>
<tr>
<td></td>
<td>• ‘Action research’ was first conceived by Kurt Lewin, the researcher immerses themselves in the study to produce outcomes and actions - useful for researching organisational change</td>
</tr>
<tr>
<td></td>
<td>• ‘Case study’ reviews are defined as an in-depth review of empirical evidence of particular individuals, groups or organisations. Analysis can be ‘holistic’ or ‘embedded’ depending on case study research and quantities</td>
</tr>
<tr>
<td></td>
<td>• Conducted over lengthy periods, ‘Longitudinal’ research design, aims to review any social, economic or political changes over time. Best used in health and sociological studies.</td>
</tr>
<tr>
<td></td>
<td>• Also known as ‘survey design’, ‘cross-sectional’ research is best for collecting data at ‘specific points in time’ from a number of cases. Quick and easy method though outcomes can vary when compared with lengthier research.</td>
</tr>
<tr>
<td></td>
<td>• ‘Raw data’ collection from document or public records, is known as ‘Archival’ research and is preferred by historians for exploratory studies</td>
</tr>
<tr>
<td></td>
<td>• Concerned with comparing two or more ‘groups’ against one measurable ‘variable’ - ‘Comparative’ research is particularly useful in ‘like-for-like’ studies i.e. comparing the profits (i.e. variable) of UK supermarkets (groups). (Wilson, 2014)</td>
</tr>
<tr>
<td><strong>Data collection</strong></td>
<td>These are general methods of collecting data for the purposes of research. Careful consideration must be given to environments and structuring interviews; wording and formatting questionnaires (i.e. open/closed) in order to obtain valid and useable data (Ekinci, 2015). Secondary data refers to reanalysing data that had previously been collected and is useful for cross-examination purposes (Saunders, et al., 2009).</td>
</tr>
<tr>
<td><strong>Data analysis</strong></td>
<td>This closing factor of management research focuses on the various methods of analysing collected data. The statistics (stats) techniques are primarily applied to quantitative data analysis by use of mathematical formulae and/or software packages.</td>
</tr>
<tr>
<td></td>
<td>These other techniques are different methods of analysing qualitative data: ‘Grounded Theory’ is a time-consuming, systematic analysis of social research data to obtain a specific theory, ‘Narrative’ concerns itself with reviewing personal or experiential, series of chronological data. ‘Discourse’ is specific to interpreting language (both written and spoken) i.e. records, news reports, statements and transcripts. ‘Visual analysis’ relates to audio-visual data from TV, photographs and advertising. Lastly, ‘content analysis’ attempts to quantify qualitative data i.e. number of time phrases or words are used during interviews to identify trend and patterns. (Wilson, 2014)</td>
</tr>
</tbody>
</table>

Figure 30: The Honeycomb expanded - adapted from Wilson (2014)
APPENDIX 4: SELF-COMPLETION QUESTIONNAIRE (TRANSCRIPT FROM ONLINE SURVEY)

Factors of A&E performance

Dear colleague,

My name is Avil Patel and I am Head of the Electronics and Biomedical Engineering (EBME) department at ELHT.

As part of a Master of Business Administration, I am currently undertaking a research study, which investigates A&E in terms of organizational effectiveness and performance management.

I appreciate time is very precious, but it would be of great help to my research if you could complete this online questionnaire.

Please read each question carefully, as they relate to different aspects of performance. Most follow a simple scaling process, but there are also some free-text boxes to gather any opinions and ideas you may have.

NOTE: anonymity and confidentiality will be observed at all times. The questionnaire should take no longer than 10 minutes to complete and the deadline for responses is Friday 6th May 2016.

Thank you in advance for your assistance.

Avil

* Required

About you

Some demographic questions - information is strictly confidential and will not be shared

1. Are you a?
   - Mark only one oval.
     - Male
     - Female

2. How old are you?*
   - Mark only one oval.
     - 20-29 years old
     - 30-39 years old
     - 40-49 years old
     - 50-59 years old
     - Over 60 years old

3. How long have you worked at ELHT?*
   - Mark only one oval.
     - < 1 year
     - 1-5 years
     - 6-10 years
     - 11-15 years
     - > 15 years

4. What is your occupation?*
   - Mark only one oval.
     - Nurse
     - Doctor
     - Manager
     - Other healthcare professional

Professional grade - nursing

Please select your appropriate grade

5. Are you a?
   - Mark only one oval.
     - Staff nurse
     - Sister/charge nurse/practice educator
     - Matron

Professional grade - medicine

Please select your appropriate grade

6. Are you a?
   - Mark only one oval.
     - Junior/foundation year
     - Middle-grade registrar
     - Consultant

Professional grade - management

Please select your appropriate grade

7. Are you a?
   - Mark only one oval.
     - Operational/finance manager
     - Finance/business manager
     - Director/executive
8. Are you *
Mark only one oval.
☐ allied health professional Skip to question 11.
☐ healthcare assistant Skip to question 11.
☐ healthcare scientist Skip to question 11.
☐ pharmacist Skip to question 11.
☐ paramedic Skip to question 11.
☐ other Skip to question 9.

Other healthcare professional
you are here because you entered 'other' healthcare occupation

9. Please enter your occupation *

10. Please enter your level or grade

The 'Care Quality Commission' (CQC) and the concept of A&E performance

11. Are you familiar with the 'CQC' ratings system, A&E's '4-hour target' and the purpose they serve in delivering quality healthcare? *
Mark only one oval.
☐ yes
☐ no Stop filling out this form.

13. Do you think the following aspects of 'Factor 1' are 'where they need to be' to ensure optimum performance? *
Mark only one oval per row.

<table>
<thead>
<tr>
<th>A&amp;E's vision</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>A&amp;E's mission</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>A&amp;E's values</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

14. Further comments on vision, missions and values

15. Factor 2: how important is A&E's 'leadership and culture' in relation to its performance? *
Mark only one oval.

<table>
<thead>
<tr>
<th>not important</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>important</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

16. Do you think the following aspects of 'Factor 2' are 'where they need to be' to ensure optimum performance? *
Mark only one oval per row.

<table>
<thead>
<tr>
<th>A&amp;E's leadership</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>A&amp;E's culture</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

17. Further comments on leadership and culture

18. Factor 3: how important are A&E's 'work environment, management and control systems' in relation to its performance? *

These are the operational policies and procedures in place for A&E to function safely and effectively
Mark only one oval.

<table>
<thead>
<tr>
<th>not important</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>important</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>
10. Do you think the following aspects of 'Factor 3' are 'where they need to be' to ensure optimum performance? *

Mark only one oval per row.

- A&E's operational policies and procedures
- A&E's budgetary control
- A&E's facilities
- A&E's technology and IT

20. Further comments on management systems and control

________________________________________________________________________________
________________________________________________________________________________

21. Factor 4: how important is A&E's 'human resource management' in relation to its performance? *

Mark only one oval.

1 2 3 4 5 6 7 8 9 10

not important essential

22. Do you think the following aspects of 'Factor 4' are 'where they need to be' to ensure optimum performance? *

Mark only one oval per row.

- A&E staff's job design and workplace demands
- A&E staff's training and competencies
- A&E staff's appraisal
- A&E staff's motivation
- A&E staff's rewards

23. Further comments on human resource management

________________________________________________________________________________
________________________________________________________________________________

24. Factor 5: how important are A&E's 'external/environmental influences' in relation to its performance? *

This relates mostly to patient indicators and environmental conditions outside A&E's control

Mark only one oval.

1 2 3 4 5 6 7 8 9 10

not important essential

25. Do you think the following aspects of 'Factor 5' have an impact on A&E's day-to-day performance? *

Mark only one oval per row.

- Age of the population
- Ethnicity of the population
- Socioeconomic deprivation
- Comorbidity
- Geographic area of residence
- Environmental conditions (weather, pollution, etc.)
- Inappropriate admission (unnecessary attendance and leaving without treatment)

26. Further comments on external influences

________________________________________________________________________________
________________________________________________________________________________

27. Additional factors: are there any more factors of A&E performance you feel have not be represented?
28. Given that all five factors have a bearing on A&E performance, please rank them from 1 to 5, where 1 is the least and 5 is the most influential.

Mark only one oval per row.

<table>
<thead>
<tr>
<th>Factor 1: Mission, vision and values</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Factor 2: Leadership and culture</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Factor 3: Management systems and control</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Factor 4: Human resource management</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Factor 5: External influences</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Your understanding of organisational performance

29. To what extent are you familiar with academic theories of organisational effectiveness? This relates to perspectives such as ‘goal’, ‘open systems’, ‘internal processes’ etc.

Mark only one oval.

<table>
<thead>
<tr>
<th>Understanding</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Little</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Extensive</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

30. To what extent are you familiar with academic theories of performance measurement and management? This relates to Balanced Scorecards, TQM, etc.

Mark only one oval.

<table>
<thead>
<tr>
<th>Understanding</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Little</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Extensive</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

31. To what extent are you familiar with the CQC’s performance regulation and ‘Key Lines of Enquiry’ for A&Es/NHS?

Mark only one oval.

<table>
<thead>
<tr>
<th>Understanding</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Little</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Extensive</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Your understanding of performance measurement

Please provide your answer based on your interpretation of the following statements:

32. In your opinion...

Mark only one oval per row:

- the A&E’s target was an accurate representation of A&E’s performance
- the CQC framework is an accurate representation of A&E’s performance
- an agreed performance framework is needed that accounts for all factors of A&E performance

...and finally

Thank you for completing this questionnaire.

33. Are there any additional comments on this survey, organisational effectiveness, or A&E performance you would like to comment upon?

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

Page 101

Received by
Google Forms
CHAPTER 8

Directly referenced literature


Available at: https://www.phqix.org/content/relationship-between-quality-improvement-and-performance-management
[Accessed 18th November 2015].


Elkind, A., 2011. Using metaphor to read the organisation of the NHS. *Social Science & Medicine, 47*(11), pp. 1715-1727.


NHS Quality Observatory, 2013. *NHS Safety Thermometer: It's not just counting... It's caring.* [Online]
Available at:
https://www.safetythermometer.nhs.uk/index.php?option=com_content&view=article&id=1&Itemid=101
[Accessed 2nd April 2016].

NICE, 2012. *Patient experience in adult NHS services* > *Quality standard.* [Online]
Available at: https://www.nice.org.uk/guidance/QS15/chapter/Introduction-and-overview
[Accessed 25th March 2016].


[Accessed 10th November 2015].


Opta, 2016. *About* > *Live performance data.* [Online]
Available at: http://www.optasports.com/about/what-we-do/live-performance-data.aspx
[Accessed 20th May 2016].


Purcell, J. et al., 2003. *Understanding the people and performance link: Unlocking the black box*, London: CIPD.


Performance Management within the NHS

Dissertation Part 2: A Reflective Analysis
INTRODUCTION

Reflection, particularly critical reflection, is a valuable technique for self-expression and to model personal development (Swan, 2008; Potter, 2015). Rationalising this in a leadership context, Ross (2014), claims the central theme to development should enable an individual to exercise self-efficiency and control, in any given situation, by collaborating appropriate skills. Fook, et al. (2006), imply that although there are numerous (and often conflicting) explanations of critical reflection; each follow a general reflective practice:

i. a process (cognitive, emotional, experiential) of examining assumptions (of many different types and levels) embedded in actions or experience;
ii. a linking of these assumptions with many different origins (personal, emotional, social, cultural, historical, political);
iii. a review and re-evaluation of these according to relevant (depending on context, purpose, etc.) criteria;
iv. a reworking of concepts and practice based on this re-evaluation.

For this paper, reflection will be presented in first person, which, could be regarded as somewhat narcissistic; though supporters of this technique argue its strengths are demonstrable - because articulating personal, in-depth accounts, benefit from an autobiographic “confessional turn” (Swan, 2008).

STRUCTURE OF THIS REFLECTIVE SUMMARY

As suggested above, expressing personal insight needs an organic process that symbolises reality from the perspective of the individual. Therefore, the structure of this paper’s key objectives, observe Atkinson’s (1999) suggestion that personal development in a practical setting (in this instance the dissertation), should follow four, key stages.
STAGE 1: FOCUS ON META-ABILITIES

This section refers to the knowledge, skills and attitudes i.e. competencies that are the cornerstone of managerial development (Butcher & Harvey, 1998). Here, competencies are “not just a function of knowledge, but the effective use of that knowledge in action” (Atkinson, 1999, p. 504). These can be summarised as:

![Figure 33: Focus on meta-abilities - adapted from Atkinson](image)

PERSONAL SKILLS DEVELOPED

I joined the ‘Executive MBA’ programme in Year 3 (September 2015) and therefore, experiences can only be accounted for during this period. That said, I developed numerous new skills and honed existing ones concurrently, which I will align to each meta-ability:

1. **Cognitive skills**: are known as “key thought processes required to ‘read’ situations and which can be used to understand and resolve problems or issues” (Atkinson, 1999, p. 504). Application of cognitive skills for this study are shown in figure 34, which follow a chapter-by-chapter explanation:
<table>
<thead>
<tr>
<th>COGNITIVE SKILL</th>
<th>DESCRIPTION</th>
<th>APPLICATION TO THIS STUDY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Complexity</td>
<td>‘Take in’ multiple, integrated perspectives, recognise and hold conflicting concepts in mind</td>
<td>Scrutinising the huge amount of literature on ‘performance’ to find relevant sources to the research problem. Also, critically evaluating this literature to understand conflicting opinions, then conceptualise specifically for this study</td>
</tr>
<tr>
<td>Flexibility</td>
<td>Shift perspectives, remain open-minded and consider different possibilities</td>
<td>Learning different research philosophies and applying the correct one to this study, followed by the appropriate research methodology and data collection techniques</td>
</tr>
<tr>
<td>Perceptual acuity</td>
<td>To notice and interpret what is happening in interpersonal interactions</td>
<td>Applying critical realism to the study, particularly during semi-structured interviews. This was key not only when actively listening to understand opinions, but also to ask pertinent questions to gain further insight</td>
</tr>
<tr>
<td>Gaining clarity</td>
<td>Use information effectively; sort, prioritise and analyse data</td>
<td>This started with the questionnaire design and was continued through until the conclusion i.e. understanding primary and secondary data, presenting this and forming the appropriate conclusions.</td>
</tr>
<tr>
<td>Visionary ability</td>
<td>Take a long term perspective and envisage a strategic direction</td>
<td>Strategic awareness was needed to formulate an implementation program and acknowledge ‘who’ needed to be involved; ‘how’ each task was to be accomplished; and ‘when’ was completion</td>
</tr>
</tbody>
</table>

Figure 34: Explanation of cognitive skills

2. **Self-knowledge**: includes self-awareness and the awareness of one’s impact on others (Atkinson, 1999, p. 505). My role at East Lancashire Hospitals NHS Trust (ELHT) is mainly centred on medical device management. Therefore, to undertake a Master of Business Administration (MBA), was fostered by a huge amount of self-awareness; along with self-belief of my ability to successfully complete the course.

The decision to choose the topic of A&E performance that was outside my ‘comfort-zone’, not only tested this self-awareness; but also projected the importance of such a study onto the organisation. Thus, highlighting awareness of its impacts to others - even more so, because some elements made uncomfortable reading.

Alongside cognitive abilities, self-knowledge also includes reviewing and expanding practical aptitudes. In my case, these ranged from academic writing (to masters standard); using online design software to formulate questionnaires; and using Microsoft’s ‘Word’ and ‘Excel’ functions to an advanced level - all of which are transferable skills. Active listening and constructive negotiation skills to acquire pertinent explanation during interviews were also enhanced.
3. **Emotional resilience:** consists of the following four components:

   a. *To exert self-control and discipline:*

   Notwithstanding the self-inflicted time restraints for this study, a prime example of self-discipline was ‘time management’, i.e. ensuring efficiency and effectiveness of ‘time versus task’ (Adair & Allen, 2003); particularly in the concluding stages - where preparing and adhering to a work schedule, guaranteed the deadline would be met.

   b. *To manage emotions appropriately:*

   Ensuring emotions were always kept ‘in-check’; this was evident during the early stages of the course, when my unstructured research proposal was in doubt, and thoughts did turn to ‘throwing-in the towel’.

   c. *Resilience in coping with pressure and adversity:*

   March and April of this year (where typically, the NHS spends most of its capital budget), saw over £6m worth of medical devices arrive through my department at ELHT. This immense commissioning exercise coincided with financial audits, staff sickness, the NHS doctors’ strikes (specifically around the time of semi-structured interviews) and other customary, operational demands of the workplace - all contributing to substantial work pressure. Similarly, uncertainties of a possible new job and a family bereavement added to the unpredictability of life’s challenges.

   d. *Have a balanced view:*

   This could be interpreted in two ways: firstly, an improved ability to listen and communicate effectively with my course tutor, particularly in the early stages when ‘things weren’t going so well’ - listening, comprehending and taking appropriate actions, ensured a cohesive dissertation, with applied value. Secondly, I could reflect upon an enhanced ability to balance each element of emotional resilience with life itself - i.e. maintain a healthy ‘work-life balance’

4. **Personal drive:** is “personal achievement orientation and motivation” (Atkinson, 1999, p. 505) - the adhesive element and a personal skill that was tested throughout. My goal was always to complete a creditable paper and successfully attain and MBA - resolve and persistency, ensured this was accomplished to the best of my ability (Baldwin, et al., 2014).
STAGE 2: PERSONAL TRANSITION

Stage two intersects stage one, since meta-abilities alone “cannot develop without self-insight and change” (Atkinson, 1999, p. 505). A key attribute of reflection in personal development is refining skills to appraise and improve practices by learning from experiences (Heyler, 2015):

THE ROLE OF THE LEARNING SET

My account of the MBA course relates to year three and the last two modules, which are interlinked to provide the student with some structure i.e. part of the dissertation proposal, constitutes the ‘research methods’ module.

My evaluation is by no means detrimental to this structured approach - I am certain it works for the majority of students, as an organised work-plan for the whole year. However, my general ‘logarithmic’ approach, meant I was still deliberating with the intricacies of this assignment brief and objectives, when the research proposal was due; resulting in a substandard paper being submitted. Other than this initial setback, the course has been thoroughly enjoyable; especially the group tutorial learning method for the dissertation - where knowledge from collaboration and sharing ideas has proven invaluable (Heyler, 2015).

CONSTRAINTS IN THE WORKPLACE

Previous experiences from conducting research in an acute hospital gave me some grounding on the difficulties; equally, for the non-linearity reasoning stated above, time became a significant factor that made routine constraints much more difficult to manage. I am alluding to the aforementioned work constraints (i.e. staffing-shortage, end of financial yearend capital spending etc.) all of which, were burden enough; but the added pressure of completing a workplace study, significantly tested my resolve. On a positive note, the research itself (bar the doctors strike) was relatively hassle-free and all participants whole-heartedly cooperative.

Atkinson (1999, p. 506) suggests personal transition involves behavioural adjustments such as “unlearning” and a change of “self-concept” - for myself, this means becoming more linear and orderly.
STAGE 3: FOCUSED TRANSITION

Focused transition should target the individual’s ability to positively “change inappropriate or limiting” context (Atkinson, 1999, p. 506).

AUTO-CRITIQUE OF THE METHODS USED

By critically reviewing literature, I filtered down the broad subject of performance to healthcare and subsequently A&E, which in retrospect, could have been slicker. My intention was to follow a methodical route; though restrictions brought on by having to condense copious amounts of literature into (what appeared to be) an ever-contracting word count, meant equal coverage was not attained. The culmination of which, probably meant my conceptual framework was disproportionately represented by the appropriate literature.

Although I was generally satisfied with the three research methods used, my critique would certainly draw greater attention to the self-completion questionnaire (SCQ). The online process would still be the preferred choice, though allowing more time for completion and narrower input options would be my criticism. Possibly, removal of the ‘neutral’ choice would have given a rigid response structure, but this could also have forced people into an opinion. That said, the sample same and sizes were adequate to collect a good range of opinions. Google Forms provided an excellent platform to administer the SCQ, with some useful analytical tools. Unfortunately, these were not directly transferrable onto a Microsoft Word document - the upshot was to first convert the data into a CSV (comma separated values) files, reformat to Windows Excel, before conducting the analytics and embedding into the Word document. Again, this process was heightened by the continual theme of time (or lack thereof).

The semi-structured interviews went according to plan and precise narrative was collected from the appropriate individuals. Rescheduling two interviews with Consultants that coincided with the doctors’ strike, were minor glitches.

An abundance of secondary data was available, but this also meant spending a large amount of time sifting through, until explicit data was found. There were some sub-factors that failed to yield specific data and were duly explained. Reliability, validity and triangulation for the greater part was achieved for all factors.
STAGE 4: ORGANISATIONAL RELEVANCE

This final stage of development brings together the previous three stages in a concentrated effort to impact the organisation. Argyris and Schön (1996, p. 131) suggest this application is “discovery of the mismatch between outcome and expectation that triggers awareness of a problematic situation and sets in motion the inquiry aimed at addressing the discrepancy”. For this study, the relevancy is reconceptualising a framework based on deviations found during research.

AUTO-CRITIQUE OF THE CONCEPTUAL FRAMEWORK

My expertise is Clinical Engineering and not the minutiae of A&E; therefore, based on a critique of literature into how effective organisations are moulded (and performance in measured within these moulds) - a conceptual framework was constructed. Ravitch and Riggan’s (2011) analogy to a lens (to further explore) was fitting, because the CF enabled me to explore accordingly, which improved my knowledge and unravelled the problem simultaneously. Upon reflection, the majority of ‘contouring’ was effective, representing the ‘open system’ A&E department. However, some minor adjustments are illustrated in figure 35.

The overriding effects of ‘leadership and culture’ is the noticeable change. In the reconceptualised framework, this now encircles the ‘throughput’, with ‘vision, mission and values’ still remaining central. Theorists suggests a cyclic relationship, where effective leadership influences culture, which in turn drives vision and values. My experiences during this case studies strengthened this notion in a ‘real-life’ situation.

Additional changes also include separation of ‘work environment’, ‘management systems and control’ - in hindsight, although this section was formulated (from extant open systems models) to symbolise the interlinking ‘business end’ of the ‘throughput’ section, it can be divided into ‘systems and control’ and ‘work environment’ becoming two, more manageable entities.

The last set of changes include previously mentioned coefficients:
Figure 35: The reconceptualised framework

- Patient indicators:
  - Age
  - Ethnicity
  - Socioeconomic
  - Comorbidity
  - Residential area
  - Environmental conditions
  - Inappropriate admissions

- Analysis:
  - Flow
  - Flow ≤ 4-hours
  - Input
  - Throughput
  - Output

- Hospital discharge

- Performance:
  - 4-hour target
  - CQC regulatory framework including coefficients (X+Y+Z)
Explanation of the proposed coefficients

Currently, the CQC performance regulatory framework and 4-hour target sit parallel. My revised proposal allows integration by means of coefficients that take into consideration all factors within an ‘open systems model’.

The ‘input’ (coefficient ‘x’) would be calculated from patient criteria to produce a ‘standard admission indicator’; the throughput, which as mostly accounted in the CQC framework, would include facilities, staffing, equipment and IT etc. to return another coefficient (‘y’); lastly, the ‘output’ (coefficient ‘z’) would take into consideration ‘exit block’, for which A&E departments are currently penalised because of lack of hospital beds and delayed transfers. This also has detrimental effects to patients waiting to be seen.

Admittedly, at this juncture, this is ambitious, complex and the intricacies are purely conceptual - hence, the lack of any precise details. Nevertheless, if successful, this concept will apportion comprehensive, standardised performance measurement of A&E.

END OF PART 2
Part one:

Excluding abstract, contents, figures, appendices and bibliography = 13,882

- Chapter 1: 1103
- Chapter 2: 3427
- Chapter 3: 3032
- Chapter 4: 3723
- Chapter 5: 1922
- Chapter 6: 675
- Chapter 7: N/A (appendices)
- Chapter 8: N/A (bibliography)

Part two = 2007