Exploring the nature of the relationship between organisational culture and organisational effectiveness within six New Zealand community-based pharmacies

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Abstract

This study set out to explore the nature of the relationship between organisational culture (OC) and organisational effectiveness (OE) within six New Zealand community-based pharmacies. Internationally, community pharmacy is under pressure to integrate within the rest of primary care, and to ‘reprofessionalise’ through role extension via the provision of enhanced clinical services. A previous New Zealand organisational climate study identified that pharmacist attitudes and behaviours are barriers to implementing a policy-aligned vision. This climate study provided the impetus for the in-depth culture-effectiveness study described here.

Historically, management literature has adopted linear, causal, and unidirectional approaches to studying the relationship between OC and OE. Within the health sector, there has been movement away from this by informed and intellectually curious academics. They recognise the need for a deeper, richer understanding of the relationship between OC and OE and the notion of linearity is largely being replaced by one of patterns of culture and contingent relationships.

This thesis describes conceptual research; a theory building exercise, in which OC is framed as socially constructed, and OE as multi-constituent, value-laden, and politically charged. The ontological assumptions are founded on social constructionism; the epistemological stance is interpretative. Concept mapping exercises were undertaken to inductively generate the OC and OE constructs as anchor points for discussion with all staff in six pharmacies; 47 interviews in total.

A construct labelled Valued Outcomes (VO) emerged to supersede OE as the end-point in the discussion about the influence of OC on OE. In this study, OE manifest as technical performance, supported by cultural orientation toward procedure and process. The attainment of VO was contingent upon technical performance, but also upon the internal four-wall culture and co-production of OC with external actors. Both OC and VO reflected the duality of community pharmacy as retailer and as health care provider.

OE influences OC in complex, non-linear, and recursive ways. Together, the contingent and recursive relationships support the idea of mutual constitution of OC and OE. In this study OC was dominant, and despite the development of OC and OE as separate constructs they emerged as overlapping and partially conflated.
This study’s findings of complex, non-linear, and recursive interplays between OC and organisational outcomes further supports contemporary literature’s gradual movement away from direct causal relationships between OC and OE. The observation in this study, of conflation and mutual constitution, explains the difficulty seen in previous studies with conceptualising and operationalising both OC and OE as completely separate constructs. Emergence of the VO construct and the manifestation of OE as technical performance support the notion of construct identity, and in this thesis the argument is made for sound definition and conceptualisation of organisational constructs within future OC-OE studies. The observation of recursive relationships between OE and OC adds to existing health services research literature, with a call for its consideration in the design of future OC-OE studies. There are implications for future research, policy, and practice within the community pharmacy sector. Community pharmacy provides a rich context for the application of organisational theory, and this research provides a platform for future pharmacy-based health services research.
Peer Reviewed Output

Papers derived directly from this thesis


Scahill, S. L. (2011). The ‘way things are around here’: Organisational culture is a concept missing from New Zealand health care policy; development, implementation and research. *New Zealand Medical Journal, accepted minor revisions.*


**Other related papers published during completion of this thesis**


Dedication

This thesis is dedicated to my late paternal grandparents Olga Joan Scahill (Nan) and Frederic Arthur Lindsay Scahill (Gaw) to whom I owe so much; even though they both passed away long before this study began. They were both very special and significant people in my life. The memories I have of them have kept me energised throughout the arduous process of doctoral study.

To Nan the home-body, thank you so much for your support and guidance and for listening to the million and one things I aimed to achieve. To Gaw, I thank you for being so proud of my educational achievements, for teaching me to be critical, to challenge the status quo and in the spirit of your fighter pilot ways; to never lie down or give up in the face of adversity. This is for both of you!
Acknowledgments

There are significant challenges when embarking upon and completing a PhD mid-career and I have been helped by many people. I am so lucky to have the unconditional support of Nadine Goudie, who ran the house, looked after the boys when I wasn’t around, and who celebrated the successes and propped me up along the way. Significant sacrifice has come with this journey and it has been my sons Jack, Angus, and Louis who have bore the brunt of this. These three lads provided the leveller, and reminded me of the fact that the PhD is not the ‘be all and end all’.

I am grateful to my supervisors Drs. Jeff Harrison and Peter Carswell who offered their wisdom in different ways. Jeff – for seeking clarity of thought, and Peter – for the probing of ideas. I enjoyed the many hours of thought provoking discussion during supervision. Other academics have helped out. My mentor and friend Associate Professor Amanda Wheeler kept me going and showed me the way, particularly with respect to publishing. I enjoyed Friday night debriefs over a beer. Likewise, my good friend Dr. Zaheer Babar was continually supportive of my endeavours and along with the hospitality shown at his home, I enjoyed many hours discussing things academic. Professors Carmel Hughes and Ngaire Kerse along with Dr. Kathy Peri inspired me throughout the process. Professor John Shaw and Dr. Tim Tenbensel involved me in their departmental activities and supported funding applications. Of the technical and administrative experts I am also appreciative! There is no funding without participants to whom I am most grateful. In particular, the case site owners who are special pharmacists in their own ways.

I show great respect for those students who have gone through the mill and shown me it can be done. Thanks to Drs. Puneet Sharma, Hemant Kumar, Darren Svirskis, Lisa Walton and Laura Wilkinson-Meyers for encouragement and wise tips. The same applies to my contemporaries; Amanda Dunlop, Jerome Ng, and Sarah Appleton. I wish you luck. This work wouldn’t have been completed without the backing of my whanau. To the Goudie clan thanks for keeping me grounded in the ways you know best, and to the Scahill clan for accepting me as the academic black sheep. To Kahurangi Apiata, I am grateful to have you as whanau and for guiding my boys. Finally, to my parents Clive and Barbara Scahill who taught me to work hard and sacrificed much in order to provide the support needed for me to complete my undergraduate studies, as a prerequisite to this research.
Preface

This thesis started life as a national climate survey, exploring responses by pharmacists to a Ten Year Vision document. The project was a relatively insignificant part of my week, and was a welcome break and interesting relief from otherwise busy weeks spent educating general practitioners (GPs) about the quality use of medicines. The project moved from a climate study to an in-depth culture-effectiveness study upon the finding that the way(s) in which New Zealand pharmacists “think” could be a significant barrier to the profession moving forward. This left me wondering about what was happening within community pharmacy at an organisational level and how this might relate to outcome. A shift in focus was required from climate to the study of culture.

When I embarked on this PhD, there was scarce literature on applying organisational culture theory to pharmacy practice research. My pharmacy colleagues seemed relatively naive to the opportunities and benefits of applying such theories. I was aware of the growing culture and effectiveness literature in the broader health care context, and particularly the work coming out of ‘like’ nations – namely Australia, Canada, and the United Kingdom. There was recognition of the need for a shift away from the notion of linearity in the culture-effectiveness relationship. A discussion with Dr Rod Perkins and attendance at several workshops conducted by Professor Huw Davies sealed the fate of this project.

Over time I have come to realise and accept that pharmacy is merely the context for this work. As the project progressed from more to less empiric, I was warned that there were much easier ways to complete a PhD project. Like my supervisors, I have also come to realise that this project has shifted from hypothesis testing to proposition generating and theory building. I wouldn’t change the path taken. This work is as much about organisational science and health services research as it is about community pharmacy moving forward and so the contribution needs to reflect this. This research has provided the platform to grow from pharmacist to organisational scientist and health services researcher. I offer this work to help propagate the view that pharmacy practice research and health service research should be indistinguishable.
The Challenge

There has been significant challenge in completing this PhD, which is captured by Kaplan’s Paradox of Conceptualisation (1964):

The proper concepts are needed to formulate a good theory, but we need a good theory to arrive at the proper concepts. (A. Kaplan, 1964, p. 53)

And in the context of health care:

Studying the culture and performance link in and across health care organisations poses substantial conceptual and methodological difficulties, not least in terms of conceptualising and operationalising both culture and performance. (Davies, Mannion, Jacobs, Powell, & Marshall, 2007, p. 48)
# Table of Contents

Abstract .................................................................................................................................... ii
Peer Reviewed Output ........................................................................................................... iv
Dedication ............................................................................................................................... vi
Acknowledgments ................................................................................................................ vii
Preface ................................................................................................................................... viii
The Challenge ......................................................................................................................... ix
List of Figures ........................................................................................................................ xv
List of Tables ......................................................................................................................... xvi
List of Panels ......................................................................................................................... xvi

## Chapter 1: Introduction .......................................................................................................... 1

- Purpose of Chapter 1 ............................................................................................................. 1
- Rationale for this thesis ........................................................................................................ 1
- Context of this research ....................................................................................................... 2
- The research question ......................................................................................................... 3
- Theoretical framework and research design ........................................................................ 4
- Justification and contribution of this thesis ........................................................................... 4
- Outline of this thesis .............................................................................................................. 5

## Chapter 2: Community Pharmacy as Context ...................................................................... 7

- Purpose of Chapter 2 ............................................................................................................. 7
- Agenda for community pharmacy ......................................................................................... 7
  - The expectations of policy-makers ................................................................................... 7
  - Drive for change: professional pharmacy bodies call for ‘re-professionalisation’ ......... 14
  - A synthesis of seven directions of future focus for community pharmacy ................... 16
- International readiness for change ....................................................................................... 16
  - The UK ............................................................................................................................ 16
  - Australia .......................................................................................................................... 17
  - Canada ............................................................................................................................ 17
  - New Zealand ................................................................................................................... 19
- Studying the OC-OE relationship in the context of New Zealand community pharmacy ... 22
- Chapter summary ................................................................................................................. 23

## Chapter 3: Organisational Culture (OC) ............................................................................... 25

- Purpose of Chapter 3 ............................................................................................................. 25
- The drivers for conceptualising and operationalising OC .................................................... 25
- A brief history of OC ............................................................................................................ 26
- Definitions of OC ................................................................................................................ 28
- Academic perspectives on the conceptualisation of OC ..................................................... 29
- Conceptual frameworks describing OC .............................................................................. 34
  - Positivist frameworks – typologies and dimensions ....................................................... 35
Interpretive approaches to framing OC ................................................................. 36
Rationale for an amalgam of conceptions of OC .................................................. 42
Community pharmacy OC studies ....................................................................... 43
Chapter summary ................................................................................................ 44

Chapter 4: Organisational Effectiveness (OE) ................................................. 46
Purpose of Chapter 4 ............................................................................................ 46
The drivers for conceptualising and operationalising OE .................................... 46
OE: another complex social construct ................................................................. 47
Effectiveness: corporate culture literature and the popular press ....................... 48
Academic perspectives on the conceptualisation of OE ....................................... 48
  Fragmentation, conflict and lack of consensus ................................................ 48
  Positivist dominance ...................................................................................... 49
  Effectiveness as a mental abstraction ............................................................ 50
  Effectiveness as a social construct ................................................................. 51
  Effectiveness as paradox .............................................................................. 52
Models of effectiveness from the literature ....................................................... 53
  Goal attainment models .............................................................................. 53
  Systems resources models .......................................................................... 53
  Stakeholder or multi-constituent models ....................................................... 54
Conceptualisation of OE in this thesis ............................................................... 54
The community pharmacy effectiveness literature ......................................... 55
Approaches to operationalising OE .................................................................. 56
Chapter summary ............................................................................................. 56

Chapter 5: Culture-Effectiveness Studies ..................................................... 57
Purpose of Chapter 5 .......................................................................................... 57
The framing of OC and OE in culture-effectiveness studies .............................. 57
Framing of the OC-OE relationship ................................................................. 58
  Framing of the relationship within non-health care academic studies ......... 60
  Summary of literature gaps – non health care studies .............................. 65
  Framing of the relationship in healthcare studies ...................................... 66
  Summary of literature gaps – health care studies ....................................... 76
Chapter summary ........................................................................................... 77

Chapter 6: Theoretical Framework ................................................................. 78
Purpose of Chapter 6 ......................................................................................... 78
The drivers for development of a theoretical framework for this study .......... 78
  The theoretical framework is an intermediary guiding theory ................. 78
  Lack of conceptual frameworks ................................................................. 79
  The difficulty in separating OC and OE .................................................... 79
  The ‘black-box’ metaphor for describing the OC-OE relationship .......... 80
Theoretical framework – components and the whole .................................... 81
Component #1 – Conceptualisation of OC ......................................................... 82
  OC is conceptualised as metaphorical and socially constructed .......... 83
  OC is operationalised as ‘the ways we think and act’ ............................ 83
Component #2 – Conceptualisation of OE ......................................................... 84
Table of Contents

Assumptions for conceptualisation of organisational effectiveness ........................................ 84
Component #3 – Conceptualisation of the OC-OE relationship .............................................. 85
  Assumptions for framing the OC-OE relationship ............................................................... 86
Revisiting the research issue ................................................................................................ 88
Chapter summary ............................................................................................................... 89

Chapter 7: Research Design .................................................................................................. 90
Purpose of Chapter 7 .............................................................................................................. 90
Overview of the research design .......................................................................................... 90
  Dominant positivist approaches; justifying an interpretative stance .................................... 90
  A multi-level research design ............................................................................................ 91
  Level 1 – Ontological assumption ..................................................................................... 93
  Level 2 – Epistemological assumptions .......................................................................... 94
  The concept of ‘generalisability’ ....................................................................................... 95
  Direct linkages, causality and the notion of linearity ......................................................... 95
  Naturalistic enquiry is not value-free ................................................................................. 96
  Level 3 – Theoretical framework as research paradigm .................................................. 97
  Level 4 – Methodology and methods .............................................................................. 97
  Selection and description of organisations and individuals .............................................. 98
Operationalising the OC and OE constructs ........................................................................ 103
  Application of Trochim’s Concept Mapping™ techniques .............................................. 104
The interviews ...................................................................................................................... 111
  Participant selection ......................................................................................................... 111
  Theoretical approach to the interview process ................................................................ 112
  Choice of interview questions and development of the schema ...................................... 112
The process of theory building ........................................................................................... 114
  Philosophical considerations regarding theory building ................................................. 115
  The process of theory development ............................................................................... 118
Techniques for ensuring rigour .............................................................................................. 123
  Theoretical rigour ............................................................................................................ 124
  Procedural rigour .......................................................................................................... 124
  Interpretative rigour ....................................................................................................... 124
  Triangulation .................................................................................................................. 125
  Evaluative rigour: ethics, politics and exposure through publication .............................. 126
  Rigorous reflexivity ......................................................................................................... 126
Ethics committee approval .................................................................................................. 126
Reporting of research outputs .............................................................................................. 127
Chapter summary .............................................................................................................. 127

Chapter 8: Operationalising Culture (OC) and Effectiveness (OE) ...................................... 128
Purpose of Chapter 8 .......................................................................................................... 128
Development of OE construct ............................................................................................. 128
  Statement generation (OE) ............................................................................................... 128
Concept map – a model of organisational effectiveness ...................................................... 134
Development of the OC construct ...................................................................................... 136
  Statement generation for the OC construct ................................................................... 136
Chapter summary

Chapter 9: Theoretical Output of this Thesis

Purpose of Chapter 9

Overview of the theory

The theoretical propositions:

Theoretical proposition 1: VO supersedes OE as a distinct construct

Summary of proposition 1

VO emerges as a distinct construct

VO represents organisational endpoint: superseding OE which is intermediary

An emphasis on VO as important organisational endpoints influenced by OC

Theoretical proposition 2: Attainment of VO is contingent upon complex influences

Summary of proposition 2

The attainment of VO is contingent upon influence of four-wall OC and manifestations thereof

A cultural dichotomy – retailer and health care provider

The co-production of OC within each of the eight cultural dimensions

Effectiveness manifests as technical performance within the contingent relationship

Theoretical proposition 3: The relationship between OC and OE is recursive

Summary of proposition 3

Recursive relationships are complex

Effectiveness influences four-wall culture and the subsequent attainment of VO in recursive ways

Being effective also influences the co-production of OC

Cyclic nature of the relationship between OE, OC and the attainment of VO

Theoretical proposition 4: OC and OE are partially conflated and mutually constituted

Summary of proposition 4

Partial conflation

Mutual constitution through contingent and recursive relationships

The recursive relationship was more difficult for participants to construct

Chapter summary

Chapter 10: Discussion

Purpose of Chapter 10

The research question and summary of study outcomes

The theoretical output of this thesis

Theoretical proposition 1: VO supersedes OE as a distinct construct

Summary of proposition 1

Comparison with existing literature

Theoretical proposition 2: Attainment of VO is contingent upon complex influences

Summary of proposition 2

Comparison with existing literature

Theoretical proposition 3: The relationship between OC and OE is recursive

Summary of proposition 3

Comparison with existing literature

Theoretical proposition 4: OC and OE are partially conflated and mutually constituted

Summary of proposition 4

Summary of proposition 4
Comparison with existing literature ................................................................. 195
Limitations of this thesis ...................................................................................... 196
Separating the OC and OE constructs from the outset ............................................ 197
Limitations surrounding transferability ............................................................... 199
The exclusion of external actors ........................................................................... 200
The limitations of an ‘across case’ grand theory .................................................. 201
Procedural limitations ........................................................................................... 202
Implications of this thesis ...................................................................................... 203
Theoretical implications of this thesis ................................................................. 206
Implications of this thesis for policy and/or practice ............................................ 212
Implications of theoretical outputs for further research ......................................... 215
Chapter summary ................................................................................................. 222

Chapter 11: Conclusions ......................................................................................... 224
List of Appendices ................................................................................................. 225

Appendix 1: Options for operationalising organisational effectiveness (OE) ................. 226
  Standard setting .................................................................................................... 226
  Modified Delphi .................................................................................................... 228
  Balanced Scorecard ............................................................................................... 229
  Donabedian framework ......................................................................................... 230
  The Competing Values Framework (CVF) .......................................................... 231

Appendix 2: Summary of conceptualisation of OC and OE in the literature ................. 234

Appendix 3: The interview schema ......................................................................... 238

Appendix 4: Pattern matching sub-study ............................................................... 243
  Development of the culture rating instrument .................................................... 243
  The method of pattern matching ........................................................................ 244
  The rating phase .................................................................................................. 245
  Participant demographics ..................................................................................... 246
  Pattern match outputs ......................................................................................... 247

Appendix 5: Cognitive maps: cultural dimensions influencing effectiveness ............. 255

Appendix 6: Influences on the attainment of Valued Outcomes (VO) ......................... 264
  Business viability ................................................................................................. 265
  Attract and retain customers .............................................................................. 267
  Better health outcomes ....................................................................................... 270
  Efficiency ............................................................................................................ 272
  Safety .................................................................................................................. 274
  Job satisfaction ................................................................................................... 275
  Staff retention ...................................................................................................... 275

Appendix 7: Cognitive maps of dimensions of effectiveness influencing culture .......... 276

Appendix 8: Dualism of organisational culture and valued outcomes ....................... 285

References ............................................................................................................. 287
<table>
<thead>
<tr>
<th>Figure</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Framing culture, effectiveness and relationship</td>
<td>57</td>
</tr>
<tr>
<td>2</td>
<td>Conceptualising culture, effectiveness and relationship</td>
<td>59</td>
</tr>
<tr>
<td>3</td>
<td>Denison’s conceptual framework</td>
<td>63</td>
</tr>
<tr>
<td>4</td>
<td>The ‘black box’ relationship</td>
<td>81</td>
</tr>
<tr>
<td>5</td>
<td>Conceptual framework – Cultural construct</td>
<td>84</td>
</tr>
<tr>
<td>6</td>
<td>Conceptual framework – Effectiveness construct</td>
<td>85</td>
</tr>
<tr>
<td>7</td>
<td>Conceptual framework – Culture-Effectiveness relationship</td>
<td>87</td>
</tr>
<tr>
<td>8</td>
<td>Levels of research design</td>
<td>92</td>
</tr>
<tr>
<td>9</td>
<td>Ontological assumptions</td>
<td>93</td>
</tr>
<tr>
<td>10</td>
<td>Design for data collection and analysis</td>
<td>98</td>
</tr>
<tr>
<td>11</td>
<td>Concept mapping process</td>
<td>106</td>
</tr>
<tr>
<td>12</td>
<td>Propositional versus hypothesis based theory development</td>
<td>116</td>
</tr>
<tr>
<td>13</td>
<td>Concept map: Organisational effectiveness</td>
<td>134</td>
</tr>
<tr>
<td>14</td>
<td>Theory of the nature of the relationship between OC, OE and VO</td>
<td>140</td>
</tr>
<tr>
<td>15</td>
<td>The emergent VO construct</td>
<td>141</td>
</tr>
<tr>
<td>16</td>
<td>Schematic representation of the contingent relationship</td>
<td>143</td>
</tr>
<tr>
<td>17</td>
<td>The contingent relationship</td>
<td>145</td>
</tr>
<tr>
<td>18</td>
<td>Cognitive map of the central importance of trust</td>
<td>147</td>
</tr>
<tr>
<td>19</td>
<td>The recursive relationship</td>
<td>171</td>
</tr>
<tr>
<td>20</td>
<td>Partial conflation and mutual constitution</td>
<td>179</td>
</tr>
<tr>
<td>21</td>
<td>Schematic representation of the recursive relationship</td>
<td>182</td>
</tr>
<tr>
<td>22</td>
<td>A culture-effectiveness theory</td>
<td>186</td>
</tr>
<tr>
<td>23</td>
<td>Framing of culture and effectiveness in non-health care studies</td>
<td>236</td>
</tr>
<tr>
<td>24</td>
<td>Framing of culture and effectiveness in health care studies</td>
<td>237</td>
</tr>
<tr>
<td>25</td>
<td>Pattern Matching</td>
<td>245</td>
</tr>
<tr>
<td>26</td>
<td>Pattern matches for each case site</td>
<td>252</td>
</tr>
<tr>
<td>27</td>
<td>Cognitive map: Customer relations (OC)</td>
<td>256</td>
</tr>
<tr>
<td>28</td>
<td>Cognitive map: Valuing each other and the team (OC)</td>
<td>257</td>
</tr>
<tr>
<td>29</td>
<td>Cognitive map: Embracing of innovation (OC)</td>
<td>258</td>
</tr>
<tr>
<td>30</td>
<td>Cognitive map: Trusted behaviour (OC)</td>
<td>259</td>
</tr>
<tr>
<td>31</td>
<td>Cognitive map: Free thinking, fun and open to challenge (OC)</td>
<td>260</td>
</tr>
<tr>
<td>32</td>
<td>Cognitive map: Providing systematic advice (OC)</td>
<td>261</td>
</tr>
<tr>
<td>33</td>
<td>Cognitive map: Leadership and staff management (OC)</td>
<td>262</td>
</tr>
<tr>
<td>34</td>
<td>Cognitive map: Focus on external integration (OC)</td>
<td>263</td>
</tr>
<tr>
<td>35</td>
<td>Cognitive map: Contributes to the safe use of medicines (OE)</td>
<td>277</td>
</tr>
<tr>
<td>36</td>
<td>Cognitive map: Has safe and effective workflows (OE)</td>
<td>278</td>
</tr>
<tr>
<td>37</td>
<td>Cognitive map: Has skilled workers and effective management (OE)</td>
<td>279</td>
</tr>
<tr>
<td>38</td>
<td>Cognitive map: Has a community focus (OE)</td>
<td>280</td>
</tr>
<tr>
<td>39</td>
<td>Cognitive map: Integrated within primary care (OE)</td>
<td>281</td>
</tr>
<tr>
<td>40</td>
<td>Cognitive map: Respected innovator (OE)</td>
<td>282</td>
</tr>
<tr>
<td>41</td>
<td>Cognitive map: Involved with health promotion/preventative care (OE)</td>
<td>283</td>
</tr>
<tr>
<td>42</td>
<td>Cognitive map: Communicates and advocates (OE)</td>
<td>284</td>
</tr>
</tbody>
</table>
List of Tables

Table 1: Culture as variable or root-metaphor ................................................................. 31
Table 2: Orientation of the three perspectives framework .................................................. 39
Table 3: Consensus and conflict within the organisational effectiveness literature .......... 49
Table 4: Non-health care studies ...................................................................................... 61
Table 5: Health care studies supporting a causal link ....................................................... 67
Table 6: Organisational characteristics and performance .................................................. 72
Table 7: Health care studies NOT supporting a causal link ............................................. 74
Table 8: Participant demographics OC concept mapping .................................................. 103
Table 9: Clusters of OE statements sorted by participants for importance ....................... 130
Table 10: Similarities between dimensions of culture and effectiveness ............................ 180
Table 11: Summary of implications of this thesis ............................................................. 204
Table 12: Approaches to framing culture and effectiveness ............................................. 235
Table 13: Participant demographics culture rating ............................................................ 247
Table 14: Cultural ‘gap’ by cluster and pharmacy case site ............................................. 253
Table 15: Attainment of business viability (VO) ............................................................... 265
Table 16: Attainment of customer attraction and retention (VO) ..................................... 267
Table 17: Attainment of better health outcomes (VO) ..................................................... 270
Table 18: Attainment of efficiency (VO) ........................................................................... 272
Table 19: Attainment of safety (VO) ................................................................................ 274
Table 20: Attainment of job satisfaction (VO) ................................................................. 275
Table 21: Attainment of staff retention (VO) ................................................................. 275
Table 22: Dualism of organisational culture and Valued Outcomes (VO) ......................... 285

List of Panels

Panel 1: Galbraith’s view of future service provision by UK Pharmacy ........................... 8
Panel 2: Contracted services for community pharmacy (UK) .......................................... 8
Panel 3: Part 4 of the Fourth Australian Community Pharmacy Agreement ................... 9
Panel 4: DHBNZ National Framework for Pharmacist Services ..................................... 12
Panel 5: Summary of New Zealand’s Ten Year Vision for Pharmacists (2004) ............... 20
Panel 6: Full profile of the dimensions of organisational effectiveness ........................... 135
Panel 7: Summary profile of what constitutes an effective community pharmacy ........... 136
Panel 8: Full profile of the dimensions of organisational culture ................................... 137
Chapter 1: Introduction

Purpose of Chapter 1

This thesis explores the nature of the relationship between organisational culture (OC) and organisational effectiveness (OE) within six New Zealand community-based pharmacies. The purpose of this chapter is to provide an overview of the rationale for the research, to introduce the context, and to present an outline of the thesis.

Rationale for this thesis

Organisational culture has been reported to influence organisational functioning (Cameron & Quinn, 1999; Martin, 1992, 2002; Schein, 1985, 2004), and the culture-effectiveness relationship has been studied within and external to the health care sector (Scott, Mannion, Marshall, & Davies, 2003; Wilderom, Glunk, & Maslowski, 2000).

The popular press and corporate culture literature has developed through direct linear causality and the notion of cultural strength (Deal & Kennedy, 1982; Denison, 1990; Kotter & Heskett, 1992; Peters & Waterman, 1982). Academic management literature has also adopted linear, causal, and unidirectional approaches to study the relationship between OC and OE (Ashkanasy, Wilderom, & Peterson, 2000; Wilderom, et al., 2000). This approach has not been without its critics who challenge the simplicity of this approach in dealing with complex phenomena and relationships (Alvesson, 2002; Martin, 1992, 2002).

There has been recognition of a need for a deeper, richer understanding of the relationship between OC and OE, alongside the application of novel approaches to studying the relationship in the health context (Braithwaite, Hyde, & Pope, 2010; Davies, et al., 2007; Kernick, 2004a; Mannion, Davies, & Marshall, 2005; Scott, Mannion, Davies, & Marshall, 2003a). There has been the realisation that the notion of linearity is unlikely to fit within the health care environment and has largely been replaced by a desire to understand complexity (Kernick, 2002, 2004a, 2004b), in terms of patterns of culture and contingent relationships (Davies, et al., 2007; Mannion & Davies, 2003; Mannion, Davies, Harrison, Konteh, Greener, et al., 2010; Mannion, et al., 2005; Scott, Mannion, et al., 2003a; Scott, Mannion, Marshall, et al., 2003).
Organisational science literature also points toward a lack of conceptualisation in OC-OE studies, with the suggestion that theoretical frameworks are required in order to better understand the complex nature of relationships (Wilderom, et al., 2000). Health services research literature outlines the significant challenge in studying OC and OE as distinct constructs (Davies, et al., 2007; Mannion, Davies, Harrison, Konteh, Greener, et al., 2010; Scott, Mannion, Marshall, et al., 2003). Both call for different theoretical and methodological approaches in order to gain a better understanding of the nature of the relationship between OC and OE – beyond linear and causal (Ashkanasy, et al., 2000; Braithwaite, Hyde, et al., 2010; Davies, et al., 2007; Mannion, et al., 2005; Scott, Mannion, Marshall, et al., 2003; Wilderom, et al., 2000). Study of the OC-OE relationship appears immature, and this has provided much of the impetus for this culture-effectiveness study.

**Context of this research**

This thesis began life through an interesting and unexpected finding from a national climate survey of New Zealand pharmacists. The finding that pharmacists may be their own worst enemies in terms of their orientation toward a policy-aligned Ten Year Vision (TYV) document, shifted the research programme from a climate study to an in-depth culture-effectiveness study (J. Harrison, Scahill, & Sheridan, 2011; Scahill, Harrison, & Sheridan, 2009, 2010).

Internationally, community pharmacy has been under significant pressure to integrate within the rest of the primary care sector, and to ‘reprofessionalise’ via role extension and the uptake of enhanced clinical services. This is expected to improve population health outcomes. Pressure has come from policy-makers who call for community pharmacy to contribute more to primary health care. This has been made explicit in health policy in the United Kingdom (UK) but has only been implicit in health policy from the New Zealand Ministry of Health (MOH) (Dept of Health (UK), 2000, 2003, 2008; Galbraith, 2007; Ministry of Health, 2001a, 2001b, 2006, 2007; Ryall, 2007).

Pharmacy professional bodies have been advocating for the same, although the reasons and aspirations are different (Canadian Pharmacists Association, 2008; Pharmaceutical Society of New Zealand, 2004, 2010; Pharmacy Guild of New Zealand, 2010; Royal Pharmaceutical Society of Great Britain, 2010). Health policy is founded on efficiency and population based health outcomes through access to and provision of high quality
healthcare. The agenda for the pharmacy vision includes status and survival of the profession, in addition to service provision.

The TYV climate study found seven barriers to full implementation of the future vision including: pharmacist humanistic; systems of care and teamwork; funder stakeholder relationships and remuneration; appreciation of knowledge and skills; lack of research support; current expertise and continuing professional development (CPD), and lack of voice (Scahill, Harrison, & Sheridan, 2009). All of these barriers influence the pace at which the community pharmacy sector achieves full implementation of the TYV. The factor labelled ‘pharmacist-humanistic’ was most interesting, and provided impetus for this in-depth culture-effectiveness study. The humanistic barrier describes the way pharmacists think including apathy, lack of motivation, narrow and inward focus on current role, negativity towards the current health care environment, silo thinking, not taking the time to think about the future, and subservient approaches to work. This led to the question: “What is happening within community pharmacy at an organisational level”, and the shift from climate to culture and effectiveness.

Pharmacy practice researchers have been relatively naive to the benefits of applying organisational theory to the field of pharmacy (Scahill, 2008a; Scahill, Harrison, Carswell, & Babar, 2009a). Internationally, the community pharmacy sector continues to be rich with change, and as a context it is under researched. There is a scarcity of literature which explores community pharmacy through a cultural lens (Clark & Mount, 2006; Scahill, 2008a; Scahill, Harrison, & Carswell, 2010a; Scahill, Harrison, Carswell, & Babar, 2009b). This scarcity of literature, and the need to better understand the OC-OE relationship in order to change, provides the impetus for studying the OC-OE relationship in this context.

**The research question**

Based on a desire to better understand the relationship between OC and OE in the context of community pharmacy, the following research question was posed:

What is the nature of the relationship between organisational culture (OC) and organisational effectiveness (OE) within six New Zealand community-based pharmacies?
Theoretical framework and research design

This thesis describes conceptual research through a process of theory building. In order to explore the relationship between OC and OE, these constructs were developed under the guidance of a theoretical framework. The theoretical framework situates OC and OE and the relationship between them as socially constructed, and therefore the constructs are operationalised within the same frame as the relationship between them.

Ontological assumptions are founded on social constructionism; the epistemological stance is interpretative. OC is viewed as a metaphor for organisational life; a lens through which the organisations under study could be made sense of. OC was operationalised for participants in a concept mapping exercise as “...the ways we think and act” in our pharmacies. OE was conceptualised as a high level construct that is: value-laden, decidedly judgemental, and politically charged. OE was operationalised in a separate multi-stakeholder concept mapping exercise as “…an effective community pharmacy is one that”, allowing for multiple viewpoints.

The outputs from the OC and OE concept mapping exercises were used as anchor points for discussion, with all staff in six pharmacies; 47 interviews in total. Case site pharmacies were selected for their alignment with the expectations within health care policy at the time. Interview dialogue was managed by reduction through the use of NVivo software and cognitively mapped with the voice of participants being heard through taking the language of participants into the maps. Dialogue was interpreted through the sense-making of eight culture and eight effectiveness cognitive maps. Theory was built at a conceptual level through the gradual development and synthesis of four main propositions, alongside the overthrow of other possibilities through argument with the supervisory team and other colleagues (K. G. Smith & Hitt, 2005).

Justification and contribution of this thesis

This thesis contributes to the fields of organisational science, health services research, and pharmacy practice. Insufficient attention has been paid to conceptualising and operationalising OC and OE within culture-effectiveness studies, and this research is guided by conceptualisation through development of a theoretical framework. Within the health sector, there is increasing recognition of the complexity of OC and OE and the nature of the relationship between them. There is a call in the literature for a deeper,
richer understanding of the relationship between OC and OE that goes beyond the positivist linear causal frames that dominate.

There is also an expectation that different methodological approaches will be required to understand the OC-OE relationship, and this interpretative research design takes such an approach. This thesis describes conceptual research; a theory building exercise that is founded on ontological assumptions of social constructionism and an interpretative epistemological stance is adopted. The emergence of an entirely new outcomes construct in this study gives support to ‘lumpers’ and ‘splitters’, whose role is to determine whether or not related organisational constructs are different, and if so, in what ways. This thesis does that.

The difficulty in separating OC and OE as distinct organisational constructs is a challenge well recognised amongst health services researchers at both conceptual and operational levels. Health services research literature is moving away from the notion of linear relationships to patterns of culture and contingent relationships. This thesis reflects this, through confirmation of contingent relationships influenced by internal culture, but also through identification of the co-production of OC between staff and parties external to the four walls of the pharmacy. Recursive influences have also been uncovered, pointing toward OC and OE being mutually constituted.

The relative inseparability of OC and OE under an interpretative design reflects the difficulty had by positivist researchers in elucidating the relationship between these two constructs. Pharmacy practice researchers have been relatively naive to the benefits of applying organisational culture as a lens for studying pharmacy life and this work has much to offer in terms of policy, practice, and research within the community pharmacy sector.

**Outline of this thesis**

This thesis broadly follows the theory building processes outlined by Smith and Hitt (2005).

Chapter 1 introduces the study, and provides a brief overview of the rationale, research question, study design, and thesis layout. Chapter 2 outlines the ‘tension/phenomena’ part of the theory building process through the unexpected finding from an earlier study that pharmacists may be their own worst enemies, in terms of policy implementation.
Chapter 2 builds on the impetus for the study outlined in Chapter 1, and provides a description of the context within which community pharmacy is embedded.

Chapters 3 through 6 outline the ‘search’ part of the theory building process. Chapters 3 and 4 provide an understanding of the constructs of OC and OE. Chapter 5 outlines how they have been studied together. Chapter 6 presents the theoretical framework of this study, which explores how OC and OE have been framed within the literature and posits a platform for the research design.

Chapters 7 through to 9 outline the ‘research/elaboration’ part of the theory building process. Chapter 7 describes how the research was carried out; founded on ontological assumptions and an epistemological stance. Chapter 8 outlines the development of the OC and OE constructs, and Chapter 9 outlines the nature of the relationship between them. Chapters 10 and 11 represent the ‘promulgation/presentation’ part of this theory building exercise. Chapter 10 contains discussion of the theoretical propositions and the implications for theory, policy, practice and future research. The main conclusions are drawn in Chapter 11.
Chapter 2: Community Pharmacy as Context

Purpose of Chapter 2

The purpose of this chapter is to outline the context within which community pharmacy is embedded; the expectations placed upon community pharmacy, the international experience of readiness to re-professionalise and the common barriers and facilitators to doing so.

Agenda for community pharmacy

The expectations of policy-makers

The following policy review outlines the international context of community pharmacy in order of countries that have had the longest to shortest involvement of community pharmacy within health care policy. There are commonalities between government health policies in Commonwealth countries, which call for pharmacy to extend its role. Equally, there are commonalities in the response of the pharmacy sector to these policies. This chapter highlights the commonalities and some of the differences in policy and response across four Commonwealth countries including: United Kingdom (UK), Australia, Canada and New Zealand.

Health policy reform in the UK

The UK has been the leader of health policy reform, within the community pharmacy context (Dept of Health (UK), 2000, 2003, 2008; Galbraith, 2007). The UK Department of Health has been prolific in its commissioning of consultation reports (Galbraith, 2007) and health policy relating to community pharmacy (Dept of Health (UK), 2000, 2003, 2008). There has been commitment to develop community pharmacy services and the most recent White Paper draws on what Galbraith describes as the “attributes of a good pharmaceutical service” (Panel 1). The UK Government has been the only one to attempt to define what constitutes an effective community pharmacy. Commissioner Galbraith notes the potential contribution of community pharmacy and outlines a list of distinguishing features of a world class pharmacy.
Panel 1: Galbraith’s view of future service provision by UK Pharmacy

Attributes of a good pharmaceutical service – what it might offer patients and consumers

- Accurate
- Knowledgeable
- Providing value for money
- Professional
- Supporting patients
- Convenient service
- Personal
- Informative
- Integrated
- Accessible
- Evaluation
- Full service

Potential contribution of pharmacy to various levels of patient care including; promoting better health, prevention and early detection, long term conditions/chronic care management, case management.

Distinguishing features of a ‘world-class’ pharmacy

- Primary source of health information and advice
- Helping people to stay healthy and to improve health where needed
- Routinely promoting self-care and being associated with key public health initiatives
- Providing new services to help people with acute conditions and long term conditions
- Skilled, knowledgeable, competent and considerate staff
- Part of a strong local network of health improvement services and local leaders for health in the community
- A wider information retailer of medicines but also broader health, wellbeing and social matters i.e. sustainable development

From a contractual viewpoint, Galbraith suggests there needs to be adequate incentives to drive changes in best practice. The greatest shift in practice is the requirement to provide enhanced ‘cognitive’ services in addition to the traditional supply and distribution roles community pharmacy has held (Panel 2).

Panel 2: Contracted services for community pharmacy (UK)

Essential Services

- Dispensing and repeat dispensing
- Health promotion
- Healthy lifestyle advice
- Signposting to other services
- Support for health care
- Disposal of medicines

Accredited Advanced Services

- Medicines Use Review

Local Enhanced Services – commissioned by PCT’s

- Smoking cessation
- Supervised methadone administration
- Patient group directions (ECP, NRT)
- Minor ailments
New models of practice are expected to enhance the patient experience, support wellbeing and promote the safe use of medicines. Additionally, community pharmacy is expected to develop integrated ‘pharmaceutical care management’ services with greater clinical focus, integration with other providers, and a quality focus.

**Health policy reform in Australia**

A long term strategic programme of pharmacy practice research has produced a substantial evidence base to underpin proposed new community pharmacy services funded by the Australian Government (Anderson, Blenkinsopp, & Armstrong, 2008). Tripartite arrangements between Schools of Pharmacy, the Australian Government and the Pharmacy Guild have supported this through the Community Pharmacy Agreement Research and Development Program. This has been used to inform the priorities of the Fourth Agreement (Commonwealth Government of Australia, 2005), and Part 4 of this agreement contains the Professional Pharmacy Programs and Services (Panel 3) designed to provide structure for the direction and development of future services.

**Panel 3: Part 4 of the Fourth Australian Community Pharmacy Agreement**

**Medication Management Review**
- Residential medication management review services
- Home medicines review services
- Accreditation incentives
- Pharmacy services facilitators

**Rural Pharmacy allowance and Support**
- Rural pharmacy maintenance allowance
- New pharmacy start-up and support allowance
- Succession planning and incentives
- Rural pharmacist pre-registration incentive
- Rural pharmacy workforce program

**Indigenous Access**
- Recognise cultural preferences
- Provide ongoing funding through section 100 support allowances
- Improve PBS accessibility
- Undergraduate Aboriginal and Torres Strait Islander

**Better Community Health**
- Asthma pilot program
- Diabetes pilot program
- Dose administration aids
- Prevention of communicable diseases
- Emergency contraception
- Quality care pharmacy program
- Patient medication profiling service
- Practice change and education incentive scheme
- Research and development
- Other projects delivering health outcomes as identified including E-Health initiatives
The tripartite arrangement in Australia signals a strong and long-term commitment by the Australian Government, the Pharmacy Guild and the academic community to develop community pharmacy services and to evaluate service provision in a robust manner. The downstream benefits have been realised through development of sustainable research programmes evaluating and supporting community pharmacy (Feletto, Wilson, Roberts, & Benrimoj, 2010a, 2010b, 2011; A. S. Roberts, 2005; A. S. Roberts, Benrimoj, Chen, Williams, & Aslani, 2006; A. S. Roberts, Hopp, Sorensen, Benrimoj, & Aslani, 2003).

The Fourth Agreement was available at the time this thesis work was being initiated, and provided a list of the activities that the community pharmacy sector was expected to involve itself with. However, The Fourth Agreement did not outline a profile of an effective community pharmacy within the Australian context.

Health policy reform in Canada

In 2002, the Commission on the Future of Health Care in Canada, headed by former Saskatchewan Premier Roy Romanow, released a report on the nation’s health care system (Romanow, 2002). The Commission’s findings and recommendations have taken a central place in the debate on the value and future of Canada’s public healthcare system. A key element identified in the Commission’s report was the need to transform Canada’s health care system to focus squarely on primary health care strategies. With respect to community pharmacy, the Romanow Commission highlighted that:

> There is a growing emphasis on medication management programs. This is likely to have a direct impact on the role of pharmacists and make it possible for them to play an increasingly important role as members of the health care team. (Romanow, 2002, p. 107)

Health policy reform in New Zealand

As with the Canadian reforms the focus on health policy reform in New Zealand has been on primary care. However, the place of community pharmacy in the reforming health care system has been much more implicit than explicit, compared with the UK, Australia and Canada.

New Zealand health policy-makers expect primary care provider organisations to contribute to improving access, equity, quality and service delivery through improving levels of integration and multidisciplinary team work. This started with the New Zealand
Primary Health Care Strategy (NZPHCS) of the former Labour Government in the late 1980’s, and has been carried forward by the current National Government in their primary care initiative paper titled Better, Sooner, More Convenient Primary Health Care (BSMC) (Ministry of Health, 2001a, 2001b, 2006; Ryall, 2007):

The NZPHCS expects community pharmacy to undertake counselling, and deliver education, and be involved in the primary care team. This is in addition to the traditional source, dispense and distribution roles it has held. However, the NZPHCS is not explicit in how community pharmacy will contribute to health outcomes. One of the major thrusts of the National Government’s BSMC strategy has been the development of Integrated Family Health Care Centres (IFHC). These centres are expected to support the devolution of services from secondary to primary care including: specialist assessments, minor surgery, walk-in access, chronic care management, increased nursing and allied health services, as well as selected social services. Aside from outlining pharmacists as one of nine professional groups that could be co-located to an IFHC setting, and the implicit connections of ‘different islands of health care,’ there is nothing which specifically relates to future service provision by community pharmacy within BSMC.

By virtue of accessibility and skill set, community pharmacy is arguably in a strong position to triage and refer to general practice or deliver appropriate first contact primary care. Community pharmacy is an integral part of primary health care in New Zealand but has been an under achiever in terms of meeting the expectations of current policy (Scahill, Harrison, Carswell, & Shaw, 2010). Pharmacists complete a four year degree and a one year pre-registration internship training programme in New Zealand. While pharmacists are highly trained, in many instances community pharmacists spend their time counting tablets in a dispensary. One study suggests that the interventions pharmacists make are predominantly bureaucratic, legal or stock related with less than 20% being professional in nature (Bryant, 2006).

Two working documents have been developed under the broad umbrella of health policy, but are more operational in nature. The District Health Board New Zealand (DHBNZ) National Framework for Pharmacist Services (District Health Boards New Zealand, 2006) was launched in 2006. The DHBNZ framework was squarely directed at individuals not organisations and provides service specifications rather than organisational level activities or outputs (Panel 4).
Panel 4: DHBNZ National Framework for Pharmacist Services

Existing Pharmacy Services
Base dispensing services
Methadone services for opioid dependence
Monitored therapy medicine services (clozapine services)
Aseptic pharmacy services – syringe driver services

New Pharmacist Services
Level A – Services: Information services
• Health education
• Medicines and clinical information support
Level B – D Services: Medicines Review Services
• Level B – Medicines Use Review and Adherence support
• Level C – Medicines Therapy Assessment
• Level D – Comprehensive Medicines Management

Level A services involve providing education to patients when they collect their prescriptions. Level B services require focus on assisting patients to be more concordant with their medication regimens. The aim of Level B is to identify medicine-related problems and to formulate solutions and communicate these back to the general practice teams. Provision of Level C and D services requires a much higher level of clinical training and more interaction with the prescriber. Issues with the medication regimen are addressed in addition to aspects of patient concordance. Patients who receive a level D review have chronic conditions, are on ten or more medications, and have significant medication-related problems.

After wide consultation in 2007, the Medicines New Zealand (MedNZ) strategy was released (Ministry of Health, 2007). Prior to this, New Zealand health policy had been implicit in signalling the role of community pharmacy within a wider health care team (Ministry of Health, 2001a, 2001b, 2006). Community pharmacy has remained absent from the discourse around primary care collaboration, at multiple levels (Scahill, 2011a). The MedNZ per se remained implicit, rather than explicit, about the role of community pharmacy. Subsequent to the launch of the strategy document, some engagement with the community pharmacy sector has occurred. The framework is based on the tenets of: safety, efficacy, access and optimal use of medicines in New Zealand.

The framework is founded on: sector involvement, system capability, efficient structures and excellent systems, with knowledge transfer. The framework is underpinned by the principles of equity, effectiveness, trust, confidence and affordability. The MedNZ outlines opportunities where the optimal use of medicines in New Zealand can be improved.
Significant value is expected for the New Zealand health care sector through integration of community pharmacy and via the delivery of enhanced pharmaceutical services (Scahill, 2011a; Scahill, Harrison, Carswell, et al., 2010). The expectation is that general practice will have patients who are better informed about their medications, and more likely to be concordant. It is then more likely that health targets set by health funders and planners will be achieved (Ministry of Health, 2006, 2007). However, community pharmacy cannot be solely responsible for integration and some responsibility lies with health funders and planners.

Primary Health Care Organisations (PHOs) are meso level community-based support organisations for the primary care sector. They sit within 23 geographically based District Health Boards (DHBs) that have health funding, planning and service delivery responsibilities. PHOs are expected to support integration of health care providers such as community pharmacy into the primary care sector. PHOs must demonstrate that all of their providers and practitioners (doctors, nurses, pharmacists, other allied professionals) are in the position to influence PHO decision making, rather than one professional group such as GPs being dominant (Ministry of Health, 2001a). Although some PHO’s are taking a lead in developing relationships with community pharmacy and there are small pockets of activity around New Zealand, integration of community pharmacy representation into PHO governance structures has been slow. Involvement of community pharmacy in integrated primary care initiatives has also been tardy (Scahill, 2011a; Scahill, Harrison, Carswell, et al., 2010).

District Health Boards (DHBs) have significant responsibility for the development of integrated community pharmacy services. In much the same way as the PHOs, the DHBs have been relatively slow to engage with community pharmacy (Scahill, Harrison, Carswell, et al., 2010). MedNZ calls for increased involvement of community pharmacy to ensure the optimal use of medicines, and DHBs are expected by the National Government to fully support this strategy. In some DHBs this has occurred through the formation of district wide advisory groups with project leaders being assigned to community pharmacy development portfolios. Involvement of community pharmacy in integrated care projects has flowed from this approach. This also requires full engagement by community pharmacy which has been equally tardy (Scahill, Harrison, Carswell, et al., 2010).
Summary of health policy reform influencing community pharmacy

During the past decade there has been health policy reform which has provided opportunity for community pharmacy but also significant challenges. There are commonalities in government policy in each of the countries reviewed, with policy calling for pharmacy to extend its role. There is an expectation that in addition to traditional source, supply and advice roles, community pharmacy must involve itself in the provision of enhanced, value-added cognitive services which are patient centred. Along with a focus on the clinical services that pharmacy provides, health policy also calls for a higher level of integration of community pharmacy within the primary care team. The aim is to improve population health outcomes through the benefits of seamless care from integration of technology, multi-disciplinary teamwork and having a public health focus.

There are also differences which warrant consideration. The UK has a longer history of support for community pharmacy at the policy-making level. In part this is based on representation and a voice for pharmacy at the senior policy-maker level which hasn’t occurred in New Zealand. In the UK remuneration contracts seem to align with policy whilst in Australia significant funding streams have been available for the evaluation of new enhanced and cognitive clinical services.

Drive for change: professional pharmacy bodies call for ‘re-professionalisation’

The re-professionalisation of community pharmacy is a global phenomena and one with a relatively long history (Birenbaum, 1982; Edmunds & Calnan, 2001; Gilbert, 1998). The need to re-professionalise suggests that pharmacy has the roots of a profession, but that its professionalism has been eroded in some way. There has been a growing sense of urgency both from within and external to the profession that community pharmacy needs to change (Edmunds & Calnan, 2001; Scahill, Harrison, Carswell, et al., 2010). Professional pharmacy bodies are calling for re-professionalisation and their expectations seem to align with health policy-makers (Edmunds & Calnan, 2001; Scahill, 2008b; Scahill, Harrison, Carswell, et al., 2010).

An occupation becomes a profession when it is granted autonomy, is recognised by society as possessing a technical knowledge-base, has lengthy and superior education and adopts a code of ethics with a commitment to common good (Birenbaum, 1982; Edmunds & Calnan, 2001; Holloway, Jewson, & Mason, 1986). Professional autonomy
exists when an occupation has economic, political and clinical autonomy. There has been a view that pharmacy’s professional development has been hindered, largely because of the control of the medical profession over clinical autonomy and therefore economic autonomy (Edmunds & Calnan, 2001).

Historically, community pharmacy has had access to and control over a unique body of specialist knowledge around procurement, storage and compounding of medicines and other remedies (Gilbert, 1998). Until the twentieth century, community pharmacy sourced raw product, formulated dosage forms and dispensed potions; the formulas for which were often controlled by pharmacy. Industrialisation involving large-scale manufacturing of medicinal products, resulted in pharmacy losing the source and compound aspects of its role with the pharmaceutical industry making community pharmacy’s role in the production of medication largely redundant (Bissell & Morgall Traulsen, 2005; Edmunds & Calnan, 2001; Gilbert, 1998). With this comes the loss of deeply rooted functions, endangering the identity of the profession which must change in order to survive (Birenbaum, 1982). The simple act of dispensing medications on the order of a medical prescriber, and the associated financial transaction has meant pharmacists have found themselves over-trained for what they do and underutilised for what they know (Gilbert, 1998). A loss of function, social power and status has resulted in a loss of identity for pharmacy (Adamcik, Ransford, Oppenheimer, Brown, & Eagan, 1986; Bissell & Morgall Traulsen, 2005; Edmunds & Calnan, 2001).

Part of the response to this has been the drive for re-professionalisation where there has been a gradual shift in focus away from the technical role of pure procurement, supply and distribution of medications, toward disease and patient oriented approaches to pharmaceutical decision-making and the adoption of more clinical roles (Adamcik, et al., 1986; Bissell & Morgall Traulsen, 2005; Gilbert, 1998). It is the role expansion through these enhanced or cognitive clinical services that have received most attention in the literature. The need to reposition the pharmacy profession as medicines management experts through delivering cognitive services (Benrimoj & Roberts, 2005; Hopp, Klinke, Sorensen, Herborg, & Roberts, 2006; Hopp, Sorensen, Herborg, & Roberts, 2005; M. B. Roberts & Keith, 2002) has been one of the main drivers for the ‘re-professionalisation’ of pharmacy (Bissell & Morgall Traulsen, 2005). This has been supported by professional pharmacy bodies and health policy-makers (Edmunds & Calnan, 2001).
A synthesis of seven directions of future focus for community pharmacy

Critical review of the academic pharmacy practice literature and pharmacy-related health policy documents resulted in the synthesis of seven themes which were deemed to influence development within the community pharmacy sector. These themes included (Scahill, Harrison, Carswell, et al., 2010):

- A greater emphasis on integration and collaboration.
- A focus on the provision of quality primary health care.
- A focus on patient-oriented services vs selling a product.
- Looking after your patient...looking after your population.
- The provision of enhanced pharmaceutical services.
- Developing new models of pharmacy practice.
- A defined agenda and processes for change.

International readiness for change

It is clear that both policy-makers and pharmacy professional leaders see the move to the provision of enhanced services as imperative. Internationally, significant barriers to this have been identified at the level of the individual pharmacist. This suggests a lack of readiness by community pharmacy to engage and deliver. The barriers and facilitators to change are considered in the context of the four countries.

The UK

Although cohorts of pharmacists in the UK are positive about implementing enhanced services, uptake and action has been much slower than stakeholder expectation (Celino, Blenkinsopp, & Dhall, 2004; Elvey, Bradley, Ashcroft, & Noyce, 2006). Some of the cited barriers include: lack of time (Bush, Langley, Jesson, & Wilson, 2006; Ewen, Ingram, & MacAdam, 2006; Hall & Smith, 2006; Staton, Rivers, & Eastwood, 2006; Warchal, Brown, Tomlin, & Portlock, 2006); inadequate remuneration (Bush, et al., 2006; Celino, et al., 2004; Hall & Smith, 2006; Staton, et al., 2006); patient expectations and knowledge (Ewen, et al., 2006; Hall & Smith, 2006); lack of GP understanding (Celino, et al., 2004); professional boundaries and turf protection (Adamcik, et al., 1986; Gilbert, 1998; Nathan & Sutters, 1993); increased documentation and accreditation.
processes (Celino, et al., 2004; Elvey, et al., 2006) and lack of a common medical record (Warchal, et al., 2006). Human factors such as pharmacist confidence (Elvey, et al., 2006; Hall & Smith, 2006); an unwillingness to leave the comfort zone of the dispensary (Bush, et al., 2006); a uni-professional culture (Walker, 2000) and pharmacy’s inexperience of the commissioning process (Bush, et al., 2006) have been cited as barriers by stakeholders in the UK.

**Australia**

The tripartite agreement has resulted in a positive approach toward community pharmacy development, practice evaluation and organisational research by all three parties (Anderson, et al., 2008). The academic focus has been on identifying facilitators to the successful provision of extended services in Australian community pharmacy. This is a different focus to the barrier identification reported in other commonwealth countries. Seven facilitators to the implementation of cognitive clinical services in Australia have been identified (A. S. Roberts, 2005; A. S. Roberts, et al., 2006). These include: relationships with doctors; remuneration; communication and teamwork; pharmacy design; positive patient expectation; external support and assistance with change management. The inverse of the first three facilitators reported by Roberts and colleagues were reported by New Zealand pharmacists as potential barriers in the Ten Year Vision study and this is discussed further in the section below (Scahill, Harrison, & Sheridan, 2009).

**Canada**

In October 2001 the Canadian Pharmacists’ Association (CPA) produced a submission for the Romanow Commission on the Future of Health in Canada. The Commission subsequently released a report on the nation’s health care system (Romanow, 2002). The CPA submission outlined the challenges facing the Canadian community pharmacy sector and included a section on the development of new models of pharmacy practice. There was the recognition by the CPA of the need for the pharmacy profession to continue to evolve. The need for change within the profession, as well as within the wider health care system in Canada was highlighted (Canadian Pharmacists Association, 2001). The main recommendations regarding re-professionalisation were:
• The profession of pharmacy must work with health care administrators and other health care providers to effectively define and structure new consultative practice models focusing on more direct patient care.

• The federal Government must recognise the value of pharmacists’ services and remove fiscal barriers to access

• The need for multidisciplinary educational programmes to ensure that pharmacists have up-to-date knowledge and to foster collaboration and respect among the profession

In 2008, the CPA launched the Blueprint for pharmacy: designing the future together (Canadian Pharmacists Association, 2008). The aim of the Blueprint was for pharmacists to provide optimal drug therapy outcomes for the peoples of Canada, through patient-centred care. A shift was required from dispensing and technical duties to a focus on services that would improve patient outcomes (Rosenthal, Austin, & Tsuyuki, 2010). A recent study suggests that over 60% of Canadian pharmacists participating in a national survey (Jorgeson, Lamb, & MacKinnon, 2011) felt it was time to begin taking on new responsibilities, and over 70% of pharmacists surveyed wanted to be performing expanded clinical duties within 5 years. The authors concluded that:

...pharmacists responded positively to the proposed vision for the future of pharmacy and are eager to move away from the traditional dispensing role to an extended clinical role. (Jorgeson, et al., 2011, p. 125)

Pharmacists surveyed in the UK (however many years ago) held similar views however these have not translated into action and implementation has been slower than stakeholder expectation. Some of the lack of responsiveness and progress has been attributed to the way pharmacists think and act (Bush, et al., 2006; Hall & Smith, 2006; Walker, 2000). Rosenthal and colleagues imply that in Canada, pharmacists themselves might be the ultimate barrier to successful implementation due to their own psyche and culture (Rosenthal, et al., 2010). Rosenthal and colleagues call for a cultural research agenda in much the same way as previous New Zealand commentary has (Rosenthal, et al., 2010; Seahill, Harrison, et al., 2009b).

Alongside the work of Rosenthal, the engagement of pharmacists in patient-oriented health care in Canada has been largely driven by the efforts of Professor Ross Tsuyuki at the University of Alberta (Tsuyuki & Schindel, 2004). The focus in Canada has been on the application of classic change management strategies in an attempt to provide a
framework to engage the entire profession in a wholesale change management programme (Kotter, 1995). The direction of change is on pharmacist practice as opposed to organisational level change. The eight steps of Kotter’s change framework have been applied to the pharmacy context and a descriptive narrative of each step outlined as it relates to community pharmacy. It is expected that this systematic application of Kotters work around change will provide an informed and robust platform for community pharmacy moving forward (Kotter, 1995; Tsuyuki & Schindel, 2004).

New Zealand

In 2004, the Pharmaceutical Society of New Zealand published “Focus on the Future: Ten Year Vision for Pharmacists in New Zealand. 2004-2014” (TYV) (Pharmaceutical Society of New Zealand, 2004). The document was developed by the Pharmacy Sector Action Group (PSAG), consisting of broad representation from academia, industry, primary and secondary care, based on “the views of individual pharmacists, health sector funders and other key health care practitioners”.

The aims identified in the TYV were to:

- Provide a clear vision of where the pharmacy profession needs to be in 2014.
- Identify the major goals in achieving that vision.
- Provide guidance for the profession in reaching the vision outlined for 2014.

The TYV was aimed squarely at pharmaceutical services for the primary care sector, but was also intended to reflect the necessary evolution of practice of the profession in a range of other areas. As with international trends, the TYV outlines a vision including: increased roles for pharmacy, alignment with stated government policy, funding and remuneration and several other factors identified as important to the progression of pharmacy (Panel 5).
Panel 5: Summary of New Zealand’s Ten Year Vision for Pharmacists (2004)

12 Vision areas

- Patient focus
- Relationships with other health professionals
- Value proposition
- Alignment with stated government health strategies
- Education
- Focus on quality
- Wide range of services
- Multiple service delivery options
- Use of new technology
- Relationship with funding agencies
- Payment arrangements
- Managing the transition to the future vision for pharmacy

Range of services to be provided

- Health promotion and assessment – including treatment of minor ailments and referral to other members of the primary health care team
- Collaborative role in prescribing decisions – assist doctors and nurses in prescribing decisions especially for patients with chronic diseases
- Collaborative prescribing in accordance with accreditation requirements and collaborative agreements
- Provide safe, efficient dispensing of “prescription”, “pharmacist-only” and “pharmacy-only” medication; promoting patient education
- Provide education on prescribed medicines
- Prevent, detect and report adverse reactions and medication error
- Provide enhanced medicine management services, with training requirements and accredited scope of practice: patient needs assessment, information management, medicine compliance assessment and support, medicine information for patients and prescribers, disease state management services, quality use of medicines, medicine review programmes and chronic case management services
- Health assessment, monitoring and screening tests for patients where clinically warranted under protocols agreed within the primary health care team

The TYV outlines a significant refocusing of the role of pharmacists as primary providers, enhancing public health and patient care outcomes. In order for this change to be achieved there needs to be a high-level of support from pharmacists, purchasers of health services and other providers. For the TYV to be realised it was essential to understand the level of pharmacist agreement with and commitment to the TYV as well as the barriers to implementation.

A significant amount of time and resource was invested in developing the TYV and a national climate study was designed to gauge pharmacists’ awareness of, agreement with and barriers to implementation thereof. The TYV study provided a robust analysis of the climate in which community pharmacists practice in New Zealand (J. Harrison, et al., 2011; Scahill, Harrison, & Sheridan, 2009, 2010). The study found that although New Zealand pharmacists’ aligned with and were generally positive about the TYV (J. Harrison, et al., 2011) and adopting the new roles outlined (Scahill, Harrison, &
Sheridan, 2010) there were substantial obstacles to doing so (Scahill, Harrison, & Sheridan, 2009).

Seven barriers to implementation were identified and labelled: pharmacist humanistic; systems of care and teamwork; funder stakeholder relationships and remuneration; appreciation of knowledge and skills; lack of research support; current expertise and continuing professional development (CPD) and lack of voice (Scahill, Harrison, & Sheridan, 2009). All of these barriers will have influence on the pace at which the community pharmacy sector achieves the TYV. The factor labelled ‘pharmacist humanistic’ was most interesting and provided impetus for this in-depth culture-effectiveness study. The humanistic barrier describes the way pharmacists think including: apathy, lack of motivation; narrow and inward focus on current role; negativity towards the current health care environment; silo thinking; not taking the time to think about the future and subservient approaches to work.

The barriers cited by UK pharmacists previously, confidence (Hall & Smith, 2006), an unwillingness to leave the comfort of the dispensary (Bush, et al., 2006), uni-professional culture (Walker, 2000) and inexperience of the commissioning process (Bush, et al., 2006) appear to be mirrored by New Zealand pharmacists in the TYV study. The pharmacy profession and the wider primary care sector should be concerned about these obstacles to community pharmacy delivering the TYV (Scahill, Harrison, Carswell, et al., 2010; Scahill, Harrison, & Sheridan, 2009). Collectively these factors describe the ‘way we think and do things’ now in community pharmacy, as well as how the pharmacy profession might lead itself in the future.

Anderson has described how pharmacists’ perceptions and attitudes are central to driving behaviour, and this in turn affects the uptake and implementation of enhanced services such as medicines use review (Anderson, Blenkinsopp, & Armstrong, 2003). These humanistic barriers need to be better understood in order to remove obstacles to change and allow the successful implementation of activities outlined in the TYV (Bate, 1994; Schein, 2004).

**Barriers and issues to moving forward with MedNZ**

In August 2009 the Hon. Peter Dunne hosted a health sector workshop on ‘realising the potential of the pharmacy workforce to achieve optimal use of medicines’ as a biannual review of the MedNZ strategy (Dunne, 2010). A summary of the issues and the response
to these outlined by the Pharmaceutical Society of New Zealand included (Pharmaceutical Society of New Zealand, 2010):

- The lack of connected primary care sector information technology.
- The lack of a consistent and appropriate funding model for pharmacist services.
- Deficiencies in the current medicines legislation.
- The sector doesn’t maximise the potential of the GP – pharmacist professional working relationship so improved patient outcomes has yet to be maximised.
- The bureaucracy surrounding current prescribing and dispensing and service payments and its impact on pharmacists is not well understood.
- A lack of understanding of pharmacy activities by DHBs, lack of appreciation of the value of advanced pharmacist services and their benefits to patients and GPs, and the poorly defined role of pharmacists in the primary health care team and within PHOs.

**Studying the OC-OE relationship in the context of New Zealand community pharmacy**

It is clear that both policy-makers and pharmacy professional leaders see the move to the provision of enhanced services by pharmacy as imperative. Internationally, significant barriers to this have been identified, suggesting a lack of readiness by community pharmacy to engage and deliver. This could be related to organisational culture.

In the UK health care reform has developed with a focus on organisational culture as a significant facilitator of change (Davies, 2002; Davies, Nutley, & Mannion, 2000; Freeman & Peck, 2010; Mannion & Davies, 2003; Scally & Donaldson, 1998). A recent UK study reports that there is a clear interest amongst clinical governance managers in culture renewal and management in line with policy drivers (Konteh, Mannion, & Davies, 2008). However, one third of health care organisations surveyed were using a cultural assessment instrument to support their clinical governance activity (Mannion, Konteh, & Davies, 2009). The concept of organisational culture has gone largely unnoticed within New Zealand policy-making, organisational change management initiatives and health services research (Seahill, 2011b). Although there is no hard data, the uptake of culture assessment tools and the notion of culture renewal is likely to be at a much lower level in New Zealand, in part due to a lack of focus on the concept of culture within New Zealand health policy reform.
Although there appears to be a keenness by pharmacists to provide enhanced services there appears to be significant barriers to doing so, and some of these may be related to organisational culture. This seems to be an international phenomenon (Bryant, Coster, & McCormick, 2010a; Bush, et al., 2006; Hall & Smith, 2006; Rosenthal, et al., 2010; Scahill, Carswell, & Harrison, 2010; Scahill, Harrison, & Sheridan, 2009; Walker, 2000).

Despite the call for community pharmacy to engage and perform, neither health policy nor the academic literature, provide a model of what constitutes an effective community pharmacy from the viewpoint of multiple stakeholders. There is an equally sparse literature which explores community pharmacy through a cultural lens (Scahill, Harrison, et al., 2009b). As a result both OC and OE need to be conceptualised and operationalised within the pharmacy context in order to explore the relationship between them. The academic pharmacy practice literature is scarce in this regard.

Looking to the organisational science and health services research literature, the adoption of linear, causal and unidirectional approaches has been the predominant focus. The premise has been that OC influences the way individuals think which influences behaviour and therefore organisational function. This is believed to directly influence the attainment of desired outcomes in a linear and causal way. Based on the complexity of the health sector there has been movement away from this linearity and recognition of the need for a deeper, richer understanding of the relationship (Kernick, 2002, 2004a; Wilderom, et al., 2000) through the adoption of novel approaches (Scott, Mannion, Marshall, et al., 2003). A view of patterns of culture and contingent relationships has largely replaced the notion of linearity. There has also been a call to explore the potential for a recursive influence of OE on OC (Mannion, Davies, Harrison, Konteh, Greener, et al., 2010; Mannion, et al., 2005). There is significant challenge in studying OC, OE and the relationship between these constructs. The particular difficulty lies with the conceptualisation and operationalisation of the OC and OE constructs (Davies, et al., 2007; Scott, Mannion, Marshall, et al., 2003). Bounded within a theoretical frame that is underpinned by social constructionism, this research takes an interpretive approach to explore the nature of the relationship between OC and OE in community pharmacy.

**Chapter summary**

Internationally, community pharmacy is under pressure to integrate within the rest of primary care and to re-professionalise through role extension. A New Zealand climate
study identified ‘pharmacist humanistic – the way pharmacists think’ as a barrier to implementing a policy-aligned vision, prompting this in-depth culture-effectiveness study. Context aside, there has been increasing recognition of the need for a richer and deeper understanding of the nature of the relationship between OC and OE. This study takes an interpretive approach to explore the nature of the relationship between OC and OE within the context of community pharmacy.
Chapter 3: Organisational Culture (OC)

Purpose of Chapter 3

The purpose of this chapter is to introduce how OC has been explored, particularly as it relates to the development of the OC construct used in this thesis.

The drivers for conceptualising and operationalising OC

The premise for developing the OC construct in this thesis is three-fold. Firstly, OC continues to be defined in so many different ways that outlining a single definition supporting all viewpoints is problematic (Alvesson, 2002; Kralewski, Wingert, & Barbourouche, 1996; Lurie & Ricucci, 2003; Martin, 1992, 2002; Smircich, 1983). This is not a cultural study per se and the aim of this chapter is not to list nor exhaustively debate the pros and cons of the multiple definitions of OC. This has been undertaken by well cited authors (Alvesson, 2002; Cameron & Quinn, 1999; Frost, Moore, Louis, Lundberg, & Martin, 1991; Martin, 1992, 2002; Meyerson & Martin, 1987; Schein, 2004; Schultz, 1995). As such, there is a need to clearly conceptualise OC in order to position the construct within the theoretical framework. The focus of this study is on exploring the nature of the relationship between OC and OE.

The second reason is that there has been a lack of conceptualisation of both OC and OE in culture-effectiveness studies and this thesis takes an approach which conceptualises OC, OE and the nature of the relationship within the same frame (Chapter 6). There is a call for the application of conceptual frameworks and coherent operationalisations in OC studies (Martin, 1992, 2002; Meyerson & Martin, 1987) which has not been commonplace (Wilderom, et al., 2000). Further, the challenges of separating OC and OE as distinct constructs within health care studies are well known and provide the impetus for inductive development of an OC construct (Davies, et al., 2007; Mannion, Davies, Harrison, Konteh, Greener, et al., 2010; Scott, Mannion, et al., 2003a; Scott, Mannion, Marshall, et al., 2003). Taking a systematic approach to the development of OC within a theoretical framework is expected to help reduce what Martin (1992, 2002) describes as the further marginalisation and devaluation of cultural research, and theory development in general.

The third reason is that an interpretative epistemology is adopted within this thesis and OC and OE are conceptualised as socially constructed. The relationships between them
are likely to be complex and non-linear rather than directly causal as reviewed by a number of health service researchers (Scott, Mannion, Davies, & Marshall, 2003b; Scott, Mannion, Marshall, et al., 2003; Wilderom, et al., 2000). By definition, OC is not directly observable, but rather, is ‘slippery’, abstract and nebulous (Scahill, Harrison, & Carswell, 2010b; Scahill, Harrison, et al., 2009a). An in-depth culture study within the New Zealand courier parcel sector, found that OC was a concept that some respondents find resonance with but the majority have difficulty in explaining what the term encompasses (Burchell, 2003). There is a need to operationalise OC so that participants are able to discuss dimensions of OC in terms of ways in which OE may be influenced.

A brief history of OC

Organisational culture is not a new thing, there being an extensive literature demonstrating its evolution over time (Allaire & Firsroatu, 1984; Alvesson, 2002; Martin, 2002; Pettigrew, 1979; Schein, 2004; Van Maanen & Barley, 1985). Interest in OC developed within the social sciences in the 1930’s. The focus was on the impact of OC on societal functioning (Radcliffe-Brown, 1952; Weber, 1930). Culture was deemed a social system whereby behaviour patterns related communities to their environment (Parsons, 1951). The term ‘culture’ was not used per se, but there was the belief that ideas, values and norms were the ‘glue’ that held society together as a functioning unit. Simply put, the way individuals think and act influences the system within which they function (Bissell & Morgall Traulsen, 2005).

Jacques first studied the culture of organisations in 1951 developing the concept of social systems as a defence against unconscious anxiety in a factory setting. This shed light on the close relationship between organisational task and unconscious group dynamics and how one can aid or distort the other (Jacques, 1951). It was not until the late 1970’s that Andrew Pettigrew first used the term ‘organisational culture’ (Pettigrew, 1979). This introduction prompted a flurry of organisational analysis based around the concept of culture (Martin, 1992, 2002; Smircich, 1983). In part, the interest was fuelled by the divergent schools of thought with respect to the conceptualisation of OC. There was the borrowing of concepts from other disciplines in an attempt to cement organisational science as an emerging discipline. To some extent, this was driven by advocacy for interpretive approaches (Hatch, 1993; Hatch & Schultz, 1997; Martin, 1992, 2002; Meek, 1988). At this time, the growing momentum of the post-positivistic movement was beginning to influence organisational science. The concept of OC had been linked
increasingly with the study of organisations, as academics stepped outside of the routine domains of organisational structure to study the humanistic aspects of organisations (Deal & Kennedy, 1982; Denison, 1990; Ouchi, 1981; Pettigrew, 1979; Schein, 1985; Smircich, 1983).

The historical development of organisational culture theory has been different from other aspects of organisational science in that theory development has generally informed practice rather than the other way around:

In most instances, practice has led research, and scholars have focussed mainly on documenting, explaining, and building models of organisational phenomena that were already being tried by management. Organisational culture, however, has been an area in which conceptual work and scholarship have provided guidance for managers as they have searched for ways to improve their organisations effectiveness. (Cameron & Quinn, 1999, p. 14)

Perhaps because of this, academics have been inspired to continue a cultural research agenda despite the significant challenges in doing so (Davies, et al., 2007; Martin, 2002; Scott, Mannion, et al., 2003a; Scott, Mannion, Marshall, et al., 2003).

In the 1970s and 80s interest in organisational culture grew exponentially through an interest in ‘corporate culture’. Popularisation of organisational learning, organisational behaviour and the cultural phenomenon by leading management consultants, created an almost frenzied interest (Drucker, 1988; Peters & Waterman, 1982; Senge, 1990; Tichy, 1987). The focus of this movement was on the competitive challenges that Japan posed for the American Industry, as portrayed by books like Theory Z (Ouchi, 1981) and The Art of Japanese Management (Pascale & Athos, 1981). Two books outlined culture within American industry; Corporate Cultures (Deal & Kennedy, 1982) and Change Masters by Rosalind Kanter (Kanter, 1983), while Peter’s and Waterman’s In search of Excellence (Peters & Waterman, 1982) received both positive and negative comment in the academic and lay press. This popular literature implies strong, consistent and integrated cultures outperform organisations without these features. OC is considered to be one part of an organisation, something the organisation ‘has’ which can be manipulated and changed to achieve a desired result; this has been the view held within the popular press and corporate culture literatures (Cameron & Quinn, 1999; Schein, 1985, 2004; Wilkins & Ouchi, 1983). The expectation is a gain in competitive advantage
through cultural leverage and change management, ultimately resulting in sustained financial performance (Deal & Kennedy, 1982; Peters & Waterman, 1982). This conceptualisation supports the basic principle that OC influences economic performance in a positive, linear, causal manner (Cameron & Quinn, 1999; Deal & Kennedy, 1982; Peters & Waterman, 1982; Schein, 1985, 2004). This has been challenged by some academics as too simplistic an explanation for phenomena which is complex and socially constructed (DiMaggio, 1997; Hatch, 1993; Hatch & Schultz, 1997; Martin, 1992; Meek, 1988; Sackmann, 1992, 1997).

Definitions of OC

There are multiple definitions of OC which can be grouped to include: shared understandings of meanings clearly relevant to a particular group (Louis, 1985; Sathe, 1985), rules of behaviour and communication (Davis, 1984; Schall, 1983), material objects and ritualised practices (Sergiovanni & Corbally, 1984), espoused values and underlying assumptions (Schein, 1985), and conflict in addition to what is shared within an organisation (Feldman, 1991; Meyerson, 1991; Mills, 1988).

Within the health care literature, Edgar Schein (2004) provides the most commonly cited definition of OC as:

>a pattern of shared basic assumptions that was learned by a group as it solved its problems of external adaptation and internal integration, that has worked well enough to be considered valid, and therefore, to be taught to new members as the correct way to perceive, think and feel in relation to those problems. (Schein, 2004, p. 17)

Schein conceptualises OC as a variable but suggests that organisational members carry OC and diffuse it through social interaction, based on shared understanding (Schein, 1996). Moving beyond a single focus on OC, Martin (2002) provides a definition within her Three Perspectives of Culture framework which is conceptually rigorous, yet convoluted and lengthy. The definition provides little use when attempting to develop a lay definition for this thesis. Burchell (2003) provides an equally academic, yet more succinct definition within a metaphorical frame, synthesised from the work of significant authors (Allaire & Firsio, 1984; Alvesson, 2002; Boyacigiller, Kleinberg, Phillips, & Sackmann, 2002; Martin, 1992, 2002; Smircich, 1983). According to Burchell, OC is:
A learnt and complex phenomenon that is inherently contradictory; ongoing and emerging; socially constructed system of emotionally held ideas concerning meanings in organisational life; shared in varying degrees among organisational members; present in a variety of cultural manifestations that can be interpreted for meanings; ultimately resides as schemas in the minds of culture bearers; and tacitly influences members perceptions, feelings, thoughts and behaviours. (Burchell, 2003, p. 41)

Burchell takes a broad, all-encompassing approach to the definition of OC viewed as an organisational construct that is shared, socially constructed, has cognitive and symbolic influences; includes varying manifestations - beliefs and values, conflict and contradiction, that emerge and change. This aligns with a metaphorical stance. These definitions provide academic rigour but are cumbersome when defining and operationalising OC for participants. Lay-friendly definitions were developed for this study as outlined later in this chapter.

**Academic perspectives on the conceptualisation of OC**

Despite a fragmented literature, there is some consensus that OC is made up of a collection of fundamental values and belief systems which give meaning to organisations (Hatch, 1993; Pettigrew, 1979; Sackmann, 1991; Schein, 1985, 2004; H. Schwartz & Davis, 1981). These meanings give rise to behavioural norms and expectations (Cooke & Rousseau, 1988). The debate around conceptualisation of OC centres on five positions which are inter-related and require consideration when conceptualising and operationalising the OC construct within this thesis:

- Whether OC is viewed as a variable or a metaphor for organisational life?
- Whether OC carries a shared meaning by all members?
- Whether OC is unique or generalisable?
- Whether OC is stable or dynamic?
- Whether strong versus weak OC make a difference to organisational outcome?

**Variable or metaphor for organisational life**

The basic assumptions that researchers make about ‘organisations’ and ‘cultures’ are important to reflect on when designing any cultural study (Cameron & Quinn, 1999; Martin, 2002; Schein, 1996; Smircich, 1983). OC has been developed through two main
viewpoints; as either a critical variable, or as root metaphor. As a variable the organisation is deemed to be a producer of goods and services and the OC a result of this:

Organisations are seen as social instruments that produce goods and services, and, as a by-product they also produce distinctive cultural artefacts such as rituals, legends and ceremonies...research with this conception of culture is generally based on systems theory framework. As such, it is concerned with articulating patterns of contingent relationships among collections of variables that appear to figure in organisational survival. (Smircich, 1983, p. 344)

As a root metaphor, the organisation is deemed to be a form of human expression. Framed this way meaning is constructed not discovered, hence OC is deemed to be socially constructed. The mode of thought that underlies OC as a root metaphor gives the social world much less concrete status. Smircich (1983) suggests the researcher’s attention shifts from concerns about what organisations accomplish and how they accomplish it more efficiently to how organisation is accomplished and what it means to be organised.

Despite non-consensus, the importance of OC in shaping everyday organisational life is well accepted, the common element being the socially constructed nature (Alvesson, 2002; Bate, 1994; Hofstede, Neuijen, Ohayv, & Sanders, 1990; Martin, 2002; Schein, 1985, 1990). Taking this stance, meaning is not discovered, but is constructed by human beings through interaction as they engage with the world that they are interpreting (Crotty, 1998). The variable/root metaphor divergence is central to conceptualisation of OC and Burchell (2003) outlines the major differences (Table 1).
Table 1: Culture as variable or root-metaphor

<table>
<thead>
<tr>
<th>Culture as a variable (Organisation has)</th>
<th>Culture as a root metaphor (Organisation is)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positivist approach</td>
<td>Ideational approach</td>
</tr>
<tr>
<td>Positivist epistemology</td>
<td>Interpretive epistemology</td>
</tr>
<tr>
<td>Organisations have a culture</td>
<td>Organisations are cultures</td>
</tr>
<tr>
<td>Culture is an organisational subsystem</td>
<td>Culture is located in the minds of culture bearers (cognitive) or culture is the product of minds (symbolism)</td>
</tr>
<tr>
<td>Focus on objective measures</td>
<td>Focus on subjective measures</td>
</tr>
<tr>
<td>Culture can be managed</td>
<td>Culture difficult or impossible to manage</td>
</tr>
<tr>
<td>Often quantitative studies</td>
<td>Often qualitative studies</td>
</tr>
<tr>
<td>Frequently etic methods of study</td>
<td>Frequently emic methods of study</td>
</tr>
<tr>
<td>Goal is to manage and change culture</td>
<td>Goal is to understand a culture</td>
</tr>
<tr>
<td>Frequently comparative studies</td>
<td>Frequently idiographic studies</td>
</tr>
<tr>
<td>Often reflect integration perspective</td>
<td>Often reflect differentiation and/or fragmentation perspective</td>
</tr>
<tr>
<td>Concern with behaviours</td>
<td>Concern with interpretations and meanings</td>
</tr>
<tr>
<td>Managerial interest</td>
<td>Organisational interest</td>
</tr>
</tbody>
</table>

Source: (Burchell, 2003)

The dichotomy between views of an organisation having a particular culture and an organisation being the particular culture fits between the two ends of the epistemological spectrum (Martin, 1992, 2002; Ormrod, 2003). Under positivist epistemology the world is objective, not influenced by who is looking and knowledge is gained during the research process by objectively gathering facts. The corporate culture literature previously described reflects this stance (Deal & Kennedy, 1982; Deshpande, Farley, & Webster, 1993; Kotter & Heskett, 1992; Ouchi, 1981; Pascale & Athos, 1981; H. Schwartz & Davis, 1981). This view of OC as an internal variable was also the dominant viewpoint of health policy-makers (Davies, et al., 2000; Freeman & Peck, 2010). Policy that informs National Health Service (NHS) change suggests that OC can be ‘managed’ by leaders to achieve desired and more immediate results (Davies, 2002; Davies, et al., 2000; Freeman & Peck, 2010).

Researchers adopting a metaphorical stance subscribe to a world that is fluid and changing with perception fundamentally being shaped by the person who is observing.
The role of subjective understanding is important in the shaping of knowledge and whole organisations are understood as cultures. OC ‘is’ the organisation, the organisation ‘is’ the OC (Smircich, 1983). Borrowing from social anthropology, OC is viewed as a lens through which one can make sense of structures, organisational activities and behaviours of organisational members (Martin, 1992, 2002; Meyerson & Martin, 1987; Sackmann, 1992, 1997; Smircich, 1983). OC is not seen as an organisational factor ripe for manipulation by management (Freeman & Peck, 2010). The purpose of metaphorical OC studies is to reveal the hidden and often tacit manifestations of OC.

OC has been framed metaphorically from four perspectives: contingency theory, cognitive organisation theory, symbolic organisation theory and transformational organisation theory (Smircich, 1983). Contingency theory is most aligned with corporate culture where organisations are seen as adaptive organisms existing by process of exchange with the environment. Through the cognitive approach, organisations are deemed to be systems of knowledge whereby ‘organisation’ rests in the network of subjective meanings that organisation member’s share, to varying degrees, which function in a rule-like manner. Symbolic organisation theory describes organisations as patterns of symbolic discourse. ‘Organisation’ is maintained through symbolism such as language, which facilitate shared meanings and shared realities. Finally, transformational organisational theory suggests that organisational forms and practices are the manifestations of unconscious processes; OC is a projection of mind’s universal unconscious infrastructure (Smircich, 1983).

Cognitive and symbolic theories have been most popular and transformational organisation theory least often reported based on the difficulty of studying unconscious process. DiMaggio highlights that any explanation of the impact OC has on practice rests on assumptions about the role of culture in cognition and this is taken forward when conceptualising OC for this study (DiMaggio, 1997).

**Shared or not**

Framed as a variable, all members of an organisation are deemed to view OC as the same and consistent with that of the leader, whom generates the OC (Kotter & Heskett, 1992; Schein, 1985, 2004; Trice & Beyer, 1993). As a variable, OC is an organisational factor and this has alignment with positivistic epistemology, where the goal is to manage or change the organisation, generally with a view to improving long-term fiscal prospects.
Chapter 3: Organisational Culture (OC)
(Davis, 1984; Deal & Kennedy, 1982; Freeman & Peck, 2010; Kotter & Heskett, 1992; Ouchi, 1981; Sathe, 1985). The same view is required to do this.

OC as a root-metaphor may not be shared in a consensus fashion across the entire organisation and the description of OC is dependent upon whom one asks (Martin, 1992; Smircich, 1983). Pockets of the organisation may share a subculture or the culture may be laden with ambiguity and fragmentation (K. L. Gregory, 1983; Martin & Siehl, 1983; Meyerson, 1991; Meyerson & Martin, 1987; Sackmann, 1992). A single focus on the shared nature of OC (Geertz, 1973; Louis, 1985; Sathe, 1985; Schein, 1985; Sergiovanni & Corbally, 1984) has been challenged (Alvesson, 2002; Martin, 1992, 2002; Meek, 1988; Smircich, 1983) through the belief that OC develops via social interaction in the lived worlds of all organisational members. This view argues that OC is not just a phenomena involving managers (Berger & Luckmann, 1967; Meek, 1988).

Unique or generalisable and transferable

Some academics support the notion that OC is singularly unique, context specific and distinctive to an organisation (Geertz, 1973; Louis, 1985). Others view OC through a differentiation or fragmentation perspective suggesting organisations do not possess a distinctive and uniquely unified culture (Turner, 1986). Some researchers call for empiric justification of the uniqueness concept (Van Maanen & Barley, 1985).

The concept of uniqueness of OC has ramifications for the generalisability of dimensions of OC which are inductively generated. Lincoln and Guba (1985) suggest that for concepts that are socially constructed and inductively developed, the generalisability of findings is very low. Although interpretive methods for generating OC constructs may demonstrate acceptable construct validity, the transferability of findings is context specific and transferability limited to those contexts perceived to be alike (Lincoln & Guba, 1985).

Stable or dynamic

OC conceptualised as a variable is considered stable over time, predictable and controllable (Hofstede, et al., 1990; Louis, 1983; Schein, 1985, 2004). This has been challenged by supporters of the root-metaphor conception who deem OC to be constituted through multiple dimensions (Hatch, 1993; Hatch & Schultz, 1997; Martin, 1992, 2002; Meyerson & Martin, 1987) to be complex (DiMaggio, 1997; Sackmann,
1992, 1997) with dimensions that change at different rates (Boyacigiller, et al., 2002; Hatch, 1993; Pettigrew, 1979). Competing values, contradictions and paradox are commonplace under this conceptualisation (Martin, 2002; Meek, 1988; Trice & Beyer, 1993; Tushman & O'Reilly, 1996) whilst dimensions of OC engage in a process of ongoing interplays resulting in a fluid and dynamic phenomenon (Hatch, 1993).

**Strong or weak**

Researchers have argued that ‘strong’ cultures are more successful than organisations with ‘weak’ cultures. There has been an argument that strong cultures are integrated and therefore more successful through goal focus and lack of differentiation or complete sub-cultural fragmentation (Alvesson, 2002; Deal & Kennedy, 1982; Kilmann, Saxton, & Serpa, 1985; Martin, 1992; Martin & Siehl, 1983; Peters & Waterman, 1982; Sathe, 1985). However, there seems to be little support for strong integrated cultures being an absolute prerequisite for organisational effectiveness (Allaire & Firshtrotu, 1984; Alvesson, 2002; Martin, 1992, 2002; Meyerson, 1991; Meyerson & Martin, 1987). There is a literature to suggest that stable integrated cultures perform best in stable environments, whilst fragmented cultures appear to be relatively more effective in environments that are fluid and changing. This suggests that context is an important aspect to consider when framing OC-OE studies (Martin, 1992, 2002).

**Perspectives of OC as they relate to this thesis**

In this thesis OC is conceptualised as socially constructed and therefore metaphorical. OC is seen to be shared to a degree but conceptualisation is based on what Martin (1992) would describe as a differentiation perspective. The notion of strong cultures being more effective is not entertained, and OC is deemed to be unique yet dynamic. These characteristics align with the expectations of an interpretative frame.

**Conceptual frameworks describing OC**

The development of a conceptual framework for OC is particularly important for this thesis. Both organisational science and health services research literature highlight the relative lack of theoretical or conceptual understanding and thought, and the application of novel approaches when it comes to designing OC-OE studies (Ashkanasy, et al., 2000; Braithwaite, Hyde, et al., 2010; Scott, Mannion, et al., 2003a; Scott, Mannion, Marshall, et al., 2003; Wilderom, et al., 2000). This is one of the contributions of this thesis and the following section reviews the currently available frameworks which precedes the
conceptualisation of OC for this thesis; an amalgam of the work of three organisational scientists.

Conceptual frameworks encompass definitions of OC as well as the epistemological stance and have downstream influence on the methods applied (Creswell, 2003; Crotty, 1998; Hussey & Hussey, 1997; Liamputtong & Ezzy, 2005; Lincoln & Guba, 1985; Martin, 1992, 2002).

**Positivist frameworks – typologies and dimensions**

Scott and colleagues (2003b) reviewed eight cultural assessment instruments that have the best validity for health care OC assessment. They have categorised these instruments by typological and dimensional approaches taken. This work was extended by Jung and colleagues (2009) who, after an exhaustive review concluded that there is no ideal instrument for cultural analysis (Jung, et al., 2009). The reason for the cultural analysis, the approach taken and the context of the study are what determine the appropriateness of individual instruments.

The Competing Values Framework (CVF) is the most common typology reported in the health care literature for investigating the relationship between OC and performance. The CVF began with the development of comparative organisational effectiveness criteria (Cameron, 1978; Cameron & Quinn, 1999). The framework was developed on the basis that to achieve certain foci of effectiveness, particular values were beneficial. Using a list of effectiveness criteria by Campbell et al. (1974) that was deemed to be comprehensive, Quinn and Rohrbaugh (1981) discovered that the criteria clustered together to give rise to four distinct cultural groupings. The Organizational Culture Assessment Instrument (OCAI) was developed from the CVF (Cameron & Quinn, 1999) and was used by Cameron and Freeman (1991) to investigate the relationship between OC and OE within the American tertiary education sector.

Competing values produce polarities including flexibility versus stability and internal versus external focus. These two polarities were found to be most important in defining organisational success. The polarities result in a quadrant typology with four types of culture: (a) Clan Culture – internal focus and flexible; a friendly workplace where leaders act like father figures, (b) Adhocracy Culture – external focus and flexible; a dynamic workplace with leaders that stimulate innovation, (c) Market Culture – external focus and controlled; a competitive workplace with leaders like hard drivers and, (d) Hierarchy
Culture – internal focus and control; a structured and formalised workplace where leaders act like coordinators (Cameron & Quinn, 1999).

The focus that began with an attempt to make sense of effectiveness criteria has contributed in a significant way to the taxonomy of OC as a construct.

**Interpretive approaches to framing OC**

Hawkins (1997) provides an understanding of the complexity associated with OC when attempting to develop a framework through adopting an interpretive stance. “Culture is a multifaceted phenomenon that frames our meaning-making, influences our behaviour, is enacted in our organizational rituals and evolves through gradual shifts in enacted emotional and verbal discourse” (Hawkins, 1997, p. 431). Due to the high level of complexity, some scholars question how one can expect to gain an appreciation of the depth, breadth and complexity of organisational culture through the exclusive use of a typology (Allaire & Firsirotu, 1984; Alvesson, 2002; Boyacigil, et al., 2002; Hatch, 1993; Martin, 1992, 2002; Sackmann, 1992, 1997; Scott, Mannion, et al., 2003a; Scott, Mannion, Marshall, et al., 2003). Hawkins suggests that sole reliance on a taxonomic approach in itself is problematic: “…raises fundamental questions about whether such classifications are nominalising a dynamic concept and seeing culture as something an organisation has, rather than being an integral part of what an organisation is” (Hawkins, 1997, p. 431).

This argument reflects the strong alignment between positivist approaches and conceptualisation of OC as a variable. Frameworks that view OC as a metaphor are fewer in number and are not based on matrix style typologies. They are more conceptual in nature (Alvesson, 2002; Hatch, 1993; Martin, 1992, 2002; Smircich, 1983).

There are cultural frameworks that straddle the divide between OC conceptualised as a variable and as a metaphor. Professor Edgar Schein is a positivistic researcher however Scott and colleagues have not included his framework in their review (Scott, Mannion, et al., 2003b). This is likely for two reasons. First, Schein has not formulated instruments which ‘measure’ organisational culture. Second, Schein’s work is not clearly delineated as to whether it sits within the positivist or interpretive camp. Researchers who take a metaphorical stance to conceptualising OC have drawn on his work to develop approaches which are interpretive in nature (Hatch, 1993).
Hatch (1993) has taken a dual approach, applying the work of Schein (1985, 2004) with a meld of symbolic approaches into a theoretical framework that aligns with a metaphorical stance of OC. Hatch does not declare the work of Schein redundant based on his taking a variable approach to framing OC. Hatch has recognised the value of incorporating Schein’s Levels of Culture with her own metaphorical stance. Despite the different philosophical and methodological stances, Schein provides conceptualisation of the manifestations of OC. Aspects of Schein’s conceptual work are also carried forward in this thesis, on the notion that one should not ‘throw the baby out with the bath water’. It is expected that much will be gained by considering the work of Schein, Martin and Smircich collectively, when framing this study (Scahill, Harrison, et al., 2009b).

Schein’s framework

Schein (1985, 2004) describes three levels of OC: (a) Level 1: artefacts – highly visible behaviour and the physical and structural aspects, (b) Level 2: values and beliefs – the way people think, their philosophies which organisational members bring to the surface to discuss, (c) Level 3: the underlying, taken-for-granted assumptions – they give organisations meaning and are transferred through social interaction.

Artefacts are usually easily identified and are observable products of OC such as: architecture, office layout, dress manner, behaviour patterns, language and strategic documents. Values and beliefs are expressed about how and why things are done the way they are. Schein describes these as ‘debatable, overt, espoused values’. Values and beliefs may not be directly observable but they do represent issues that organisational members can bring to the surface and discuss. Schein outlines espoused values, the spoken or promoted values of an organisation compared with the values in action which are the behaviours people exhibit. The underlying taken-for-granted assumptions represent the real core of the OC. These are the hidden invisible aspects of organisational life that people find difficult to identify and explain.

Schein’s (1985, 1996, 2004) framework is helpful for conceptualising the OC construct in this study for three reasons. Firstly, Schein provides a commonly cited definition of OC in the health care literature which has been distilled into the lay term ‘the way things are around here’ which is a helpful conceptualisation for participants. Secondly, Schein provides an understanding of how culture manifests in an organisation and the levels at
which it may do so. Thirdly, Schein’s work assists in development of the theoretical framework and subsequent methodology and methods.

**Martin’s Three Perspectives**

Martin takes a more subjectivist view of OC than Schein, adopting an interpretive frame. To Martin, OC is a metaphor where culture ‘is’ the organisation, the organisation ‘is’ the culture (Smircich, 1983). Martin advocates a Three Perspectives approach when defining and operationalising OC (Martin, 1992, 2002; Martin & Siehl, 1983).

The integration perspective describes a single culture, an oasis of harmony and homogeneity, almost exclusively driven by leadership. This perspective focuses on those manifestations of OC that have mutually consistent interpretations (Martin, 1992; Schein, 1985). Martin summarises the following findings from OC studies that have taken an integration approach:

> ...some but not all integration studies make claims that cultures characterised by consistency, organization-wide consensus, and clarity will lead to greater organizational effectiveness, as indicated by greater cognitive clarity, commitment, control, productivity and profitability. (, p. 61)

Central to the differentiation perspective is separation and conflict amongst subcultures which display harmony and homogeneity within their groupings, yet are disparate with other subcultures. OC manifests as subcultures which may exist in harmony, independently or in conflict with each other. Within subcultures there are levels of integration where ‘all is clear’ and ambiguity is banished (Martin, 1992, 2002). However, there is less consistency than with the integration perspective:

> Differentiation accounts vary in the extent to which they make claims that particular cultural configurations lead to improved organizational effectiveness. Some differentiation studies claim that, because of inconsistencies and a lack of organizational wide consensus, supposed benefits do not occur. Other differentiation studies question the wisdom and ethics of value engineering for profit. Finally, some differentiation studies see conflict expression as constructive – a different approach to deciding what effectiveness might be. (Martin, 1992, pp. 103–104)
Under the fragmentation perspective OC manifests through multiplicity and flux. The relationship among cultural manifestations is neither clearly consistent nor clearly inconsistent. There is a high level of ambiguity and a relationship between ambiguous cultures and effectiveness is somewhat unclear, at least if the researcher is looking for a concrete link between OC and OE. Martin (1992) highlights the high degree of ambiguity and the difficulty in making sense of fragmentation studies:

These fragmentation studies sometimes, but not always, include a variety of opinions about whether ambiguity has positive or negative effects on performance...the rosy view of the link between ambiguity and effectiveness usually emphasises the freedom that ambiguity brings...while other studies of the relationship between ambiguity and effectiveness are less sanguine...arguing for a link between ambiguity and effectiveness is an exercise in futility...fragmentation studies do not have a unified position on effectiveness questions. (, pp. 157–159)

The work of Martin is helpful for conceptualising OC and noting downstream implications for methodology. It is unknown whether the OC of case site pharmacies is integrated, differentiated or fragmented and this is not part of the main research question. However, all organisational members of case site pharmacies were invited to participate in the study based on Martin’s (1992) notion that culture can be viewed from either of these perspectives dependent on ‘who’ in the organisation is describing the culture. It is possible that a single culture can contain facets of all three perspectives (Table 2).

<table>
<thead>
<tr>
<th>Perspective</th>
<th>Integration</th>
<th>Differentiation</th>
<th>Fragmentation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Orientation to consensus</strong></td>
<td>Organisational-wide consensus</td>
<td>Sub-cultural consensus</td>
<td>Multiplicity of views (no consensus)</td>
</tr>
<tr>
<td><strong>Relation among manifestations</strong></td>
<td>Consistency</td>
<td>Inconsistency</td>
<td>Complexity (not clearly consistent or inconsistent)</td>
</tr>
<tr>
<td><strong>Orientation to ambiguity</strong></td>
<td>Exclude it</td>
<td>Channel it outside subcultures</td>
<td>Focus on it</td>
</tr>
<tr>
<td><strong>Metaphors</strong></td>
<td>Clearing in a jungle, monolith, hologram</td>
<td>Islands of clarity in sea of ambiguity</td>
<td>Web, jungle</td>
</tr>
</tbody>
</table>

Source: (Martin, 1992)
A synthesis by Linda Smircich: cognition and action

Smircich (1983) has synthesised the anthropology and organisational literatures into a model with four metaphorical cultural conceptualisations which include: contingent organisational theory, cognitive organisational theory, symbolic organisational theory and structural and psychodynamic theory. Further models synthesised from the literature also support the identification of structural, cognitive and symbolic approaches for conceptualising OC (Hawkins, 1997; Mohan, 1993). These models are helpful to think about when framing the OC component of this thesis.

Cognitive organisational theory is drawn upon to develop the theoretical framework for this study. Organisational cognition theorists support the notion that OC is socially constructed through interaction in the lived world. OC is located in the minds of organisational members as the bearers of OC (Berger & Luckmann, 1967; DiMaggio, 1997; Sackmann, 1991, 1992; Schultz, 1995). In this way, OC is constructed as meaning and not discovered by organisational members as ‘something that is there’ (Berger & Luckmann, 1967; Crotty, 1998). Cognitive organisational theory considers organisations as a collective of systems of knowledge, networks of subjective meanings that organisational members share to varying degrees (Huff, 2005; Martin, 1992, 2002; Martin & Siehl, 1983; Martin, Sitkin, & Boehm, 1985). In this way organisations are deemed to be socially sustained cognitive enterprises. A common underlying assumption of conceiving organisations as socially sustained cognitive enterprises is that thought is linked to behaviour and ultimately normative practice and organisational action (DiMaggio, 1997; Smircich, 1983). Organisational members are seen as thinking as well as behaving and culture manifests as such (Argyris & Schon, 1978; Smircich, 1983). The degree of sharing of culture is a less important facet of the cognitive conceptualisation, although subjective meaning is believed to function in a ‘rule-like’ manner, as patterns of behaviour.

Sackmann (1992) highlights that in the tradition of interpretative or cognitive perspectives of OC, the mechanisms for collective sense-making are of interest. At the individual level, sense-making is an activity in which individuals use cognitive structure to understand the what’s, how’s and why’s of organisational life. Collective sense-making is subtly different from individual ones in that shared cognition may exist independent of individual group members (Weick, 1995, 2005).
What differentiates collective sense-making or cultural cognitions from the individual ones is that the former are commonly held by a group of people in a given organisation, even though members of the same cultural group may not be aware in their daily activities of what they hold in common. In the process of enculturation, cognitions become rooted in the group and ultimately exist independently of an individual group member, even though individuals are the carriers of culture. (Sackmann, 1992, p. 141)

DiMaggio (1997) reminds us that any explanation of the impact of OC on practice rests on assumptions about the role of OC in cognition. DiMaggio highlights that the cognitive aspect of OC is only one aspect and that symbolic behavioural aspects are also deemed to be important. DiMaggio lays down the challenge of integrating a number of micro perspectives into a single framework (i.e., cognitive, action). Hatch (1993) has managed to achieve this through melding the levels of culture proposed by Schein with a symbolic metaphorical approach.

Like Hatch, Mohan et al. supports the work of Smircich through identification of structural, cognitive and symbolic approaches to conceptualising organisational culture (Mohan, 1993; Sackmann, 1991). These symbolic organisational theorists’ view OC as a metaphor where OC is a product of the minds of staff and OC is socially constructed. OC manifests as shared symbols, generally as action; demonstrating shared meaning. There is the belief that symbolic action need be interpreted in order for OC to be fully understood (Geertz, 1973). In this way, organisations are seen as patterns of discourse, maintained through language that describes shared realities and meanings, in symbolic ways (Smircich, 1983). This stance warrants consideration, although the framework is founded on the belief that all behaviour (and therefore all action) is symbolic. This thesis is posited more on organisational cognition theory than symbolic interactionist theory.

In order to operationalise OC, cognitive and symbolic metaphorical approaches were reduced to simpler conceptualisations so participants could understand them. Cultural manifestations will be derived from conceptualising OC as ‘the way(s) we think and act’:


**Rationale for an amalgam of conceptions of OC**

The conceptualisation of OC has been narrow in the existing literature. It has been extended in this thesis through inductive development of the OC construct via amalgamation of several conceptions of OC (Hatch, 1993; Hawkins, 1997; Mohan, 1993). The amalgam approach to framing OC is expected to address two ongoing issues with the conceptualisation of OC: the direct and causal relationship between thought and action and the potential recursive influence of the meaning of action on thought.

The positive role of culture in directing behaviour has been described as direct and causal (Ashkanasy, et al., 2000; Cooke & Rousseau, 1988; Deal & Kennedy, 1982; Denison, 1990; K. L. Gregory, 1983; Schein, 1985, 2004; Wilderom, et al., 2000). This direct causal ‘culture-behaviour’ effect has been challenged as being dynamic, warranting deeper and richer exploration (Alvesson, 2002; Golden, 1992; Hatch, 1993; Hawkins, 1997; Martin, 1992, 2002). Golden (1992) highlights that as OC moves from shared (integrated) through to the fragmented (Martin’s Three Perspectives), latitude for individual action within the organisation increases and there is a need for a more dynamic perspective of action within cultural analysis (Alvesson, 2002; Golden, 1992; Martin, 1992, 2002). Such an approach is expected to help understanding of how individuals not only adhere to, but also depart from what is deemed to be the ‘expected’ and ‘shared’ way to act.

One of the interesting interplays between OC, thought and action is the theory that in addition to OC influencing behaviour, behaviours may be interpreted for meaning and therefore impact on OC (Frost & Morgan, 1983; Harris, 1994; Hatch & Schultz, 1997). In this way, action may be seen as generating sense and cognitions may lie in the path of earlier action (Huff, 2005; Weick, 1995, 2005). This potential recursive relationship where sense-making of symbolic action and individual behaviour influences the ongoing OC of the organisation is able to be explored when a metaphorical stance of OC is adopted. Further, under this metaphorical frame, the cognitive and action oriented aspects of OC described by Smircich (1983), Mohan (1993) and Hawkins (1997) are not easily
separable (Hawkins, 1997; Mohan, 1993; Smircich, 1983). For this reason the ‘way(s) we think and act’ in our community pharmacies is an acceptable way for organisational members to think about and articulate their OC.

The merits of applying Schein’s (1985, 1996, 2004) framework have been outlined. Schein views culture as a variable, controllable and management driven but which allows for richness in cultural dimensions through describing three levels of culture. Schein does not advocate the use of cultural typologies and describes a lay definition of culture as ‘the way things are around here’.

Martin’s (1992, 2002) Three Perspectives aligns with a metaphorical approach to OC adopted within this thesis and helps to inform, (a) the selection of participants within case sites (b) the sampling frame for case site selection (c) the influence of manifestations of OC on aspects of OE when exploring relationships. Finally, the work of Linda Smircich (1983) is significant as it demarcates the variable versus metaphorical approaches to framing OC and provides clarity around the rationale for considering the cognitive (thinking) and action (symbolic or otherwise) orientations of OC.

Despite these frameworks being established and accepted in their own right, few researchers appear to meld organisational frameworks (Braithwaite, 2006a). Further, the application of these frameworks to community pharmacy research is novel yet not commonplace (Scahill, 2008a). There remains a positivist flavour to the framing of OC in culture-effectiveness studies and this thesis adopts an interpretative stance which is expected to differentiate the thesis from previous work (Ashkanasy, et al., 2000; Scott, Mannion, et al., 2003a; Scott, Mannion, Marshall, et al., 2003; Wilderom, et al., 2000).

**Community pharmacy OC studies**

Sociological perspectives are slowly being applied to academic pharmacy practice and research (Bissell & Morgall Traulsen, 2005). Karl Marx and materialistic approaches to the sociology of health and illness, Talcott Parsons’ concept of the sick role, Michel Foucault’s post modernism/post structuralism, symbolic interactionism, and feminism have all been utilised to study the emerging field of social pharmacy (Bissell & Morgall Traulsen, 2005). In general though, pharmacy practice researchers have remained relatively naive to the benefits of applying organisation theory to pharmacy practice research (Scahill, 2008a; Scahill, Harrison, et al., 2009b).
Organisational change during implementation of enhanced cognitive services has been the focus of pharmacy practice research directed at the organisational level (Bissell & Morgall Traulsen, 2005; Hopp, et al., 2006; Hopp, et al., 2005; A. S. Roberts, 2005; A. S. Roberts, et al., 2006; A. S. Roberts, et al., 2003; M. B. Roberts & Keith, 2002). An important study applying organisational theory to community pharmacy identified facilitators for implementation of enhanced services (A. S. Roberts, et al., 2006). Individual practitioner ‘values’ were thought to account for approximately half of the variance in response. It is possible that some of the unexplained variance of response could be explained by manifestations of OC.

The agenda for change in community pharmacy centres on re-professionalisation. There is a need to integrate within the rest of primary care and to implement enhanced clinical services. As such, the focus has been on the characteristics of a pharmacy and those practising within it that assist this process. There was no investigation of organisational-wide OC within the pivotal study by Roberts et al. (2006), who suggest further research is required to determine additional factors which affect the implementation of new programmes within community pharmacy (A. S. Roberts, 2005; A. S. Roberts, et al., 2006; A. S. Roberts, et al., 2003).

The OC literature in community pharmacy remains scarce (Scahill, Harrison, et al., 2009b). Clark and Mount (2006) describe OC by reporting new pharmacist’s experiences at various practice sites to help understand how these experiences shape their ethos and practice habits. A Pharmacy Service Orientation tool was developed and the authors suggest it provides a reliable measure of OC (Clark & Mount, 2006). This tool is more likely to reflect organisational climate than OC, in terms of the current organisational behaviour literature (Braithwaite, Hyde, et al., 2010; Pope, Braithwaite, & Hyde, 2010). OC is described as a set of assumptions and understandings about organisational functioning while climate relates to members’ perceptions about the extent to which the organisation is currently fulfilling their own expectations (Deshpande, et al., 1993).

Chapter summary

The notion of OC is not new. There is an extensive literature which outlines the evolution of the OC construct over time. OC continues to be conceptualised in so many different ways that outlining a single definition which supports all viewpoints is problematic. Despite this, there is some agreement that OC is socially constructed and has some
influence on organisational functioning. Conceptualisations of OC include being a variable or a metaphor for organisational life. As a variable, OC is deemed to be an organisational factor, leader driven and easily manipulated for organisational gain. As a metaphor, OC ‘is’ the organisation and the organisation ‘is’ culture. Taking this approach, OC is a lens through which the organisation can be understood. This interpretative study is framed using an amalgam of conceptualisations from both viewpoints; where OC is conceptualised as a socially constructed metaphor for organisational life and operationalised for participants as ‘the way(s) we think and act’.
Chapter 4: Organisational Effectiveness (OE)

Purpose of Chapter 4

The purpose of this chapter is to introduce how OE has been explored, particularly as it relates to the development of the OE construct used in this thesis.

The drivers for conceptualising and operationalising OE

There are striking parallels between OC and OE as organisational constructs, each being as difficult to conceptualise and operationalise as the other (Mannion, Davies, Harrison, Konteh, Greener, et al., 2010). The need to conceptualise and operationalise these constructs is similar in a number of respects.

Firstly, there is considerable breadth, lack of convergence, untidiness, conceptual disarray and dichotomy within both literature streams (Cameron, 1986; Connolly, Conlon, & Deutsch, 1980; Molnar & Rogers, 1976). As with OC, the OE construct should be conceptually defined in order to be operationalised inductively. OE is also deemed to be socially constructed and so must fit within the theoretical framework, and align with the ontological assumptions and epistemological stances taken within this thesis.

Secondly, there is not a single model of OE for the New Zealand community pharmacy sector that can be utilised for this study. The Donabedian model of quality of care has dominated the community pharmacy literature (Donabedian, 1966, 1988). This model focuses on quality of care as one indicator of high performance, with the impetus on the structure and processes shaping delivery and outcomes achieved with respect to health services delivery (R. A. Jackson, Smith, & Mikeal, 1975; Panyawuthikrai, Sakulbumrungsil, Wongwiwatthananukit, & Pitaknitinan, 2005). The pharmacy practice literature does not provide a robust model of OE that can be taken forward into the theoretical framework.

As discussed in Chapter 2, from a UK health policy viewpoint, Galbraith (2007) provides a list of seven distinguishing features of what she calls ‘a world class pharmacy’ (Panel 1). Galbraith’s model of an effective community pharmacy was developed through interpretation of separate discussions with stakeholder groups. The model was not
developed by multiple stakeholders in an inductive fashion within a single forum and so its use cannot be entertained in this study.

At the time that this study was being formulated, the international pharmacy practice literature and relevant health policy did not provide a holistic model of what constitutes an effective community pharmacy, suitable for use in this study. Likewise, at the time this thesis was being conceptualised there was no locally available, New Zealand specific model of community pharmacy effectiveness. Subsequently, standards of pharmacy practice have been developed (Standards New Zealand, 2010) but they are also unlikely to be satisfactory for the conceptualisation of this study. A model of effectiveness was conceptualised as per this chapter and developed using robust inductive techniques (Scahill, Harrison, & Carswell, 2010b).

**OE: another complex social construct**

There are many proxies used for the term organisational effectiveness (Cameron, 1986) and lots of options for the modelling of effectiveness (Mannion & Goddard, 2002). Confusion arises from using terms interchangeably, although Kanter and Brinkerhoff (1981) see no issue with this stating “we make no hard-and fast distinctions among effectiveness, productivity, performance and success. Rather, we look for all related measurement issues and use both effectiveness and performance as general and interchangeable terms” (Kanter & Brinkerhoff, 1981, p. 322).

Others do not ascribe the difference to semantics, suggesting terms such as quality, efficiency, productivity and excellence are significantly different (Altschuld & Zheng, 1995; Cameron, 1985).

> Like almost all terms in our language, the meaning of effectiveness is socially determined. Some disagreement over its definition has and probably will continue to exist. Consequently, by differentiating effectiveness from other concepts we are reflecting on our own biases about what effectiveness means. On the other hand, to be precise about the focus of this special issue, it is necessary to draw some boundaries around its meaning and separate effectiveness from these other descriptors. (Cameron, 1985, p. 2)

There are a myriad of options for conceptualisation of OE to be drawn from the ‘popular press’ and academic literatures as outlined in this chapter.
Effectiveness: corporate culture literature and the popular press

The term ‘excellence’ has been most commonly used in the popular press to describe an effective and successful organisation (Peters & Waterman, 1982). As outlined in Chapter 3, OC under this frame was expected to be directly manipulated to improve profitability, growth and market share. Excellence was seen as unidirectional and causally linked to factors that influence organisational activities including corporate culture (Deal & Kennedy, 1982; Kotter & Heskett, 1992). The focus on excellence was fiscally driven; the aim to be competitive and generate growth, profit and long term sustainability through understanding and overcoming the challenges that competition posed (Deal & Kennedy, 1982; Kanter, 1983; Kotter & Heskett, 1992; Ouchi, 1981; Pascale & Athos, 1981). The approach in the popular press and to some extent the corporate culture literature, has taken criticism for taking too simplistic an approach to a complex area of study (Carroll, 1983). This literature offers little in terms of conceptualisation of OE for this thesis, but does add to the impetus for taking an in-depth approach to studying the nature of the relationship.

Academic perspectives on the conceptualisation of OE

Multiple perspectives have been adopted for the framing of OE in the academic literature. In order to conceptualise OE for this study the following considerations have been thought about and integrated into the conceptualisation of OE.

Fragmentation, conflict and lack of consensus

As each period of organisational theory has emerged, different conceptualisations of OC and OE criteria have been emphasised. This has lead to a complex and fragmented literature (Cameron, 2005; Cameron & Quinn, 1999; Faerman, 1985; Martin, 1992). The relationship between OC and OE has come under intense study, often from divergent perspectives and contexts. This has added to the complexity within this field (Frost, et al., 1991; Martin, 1992, 2002; Schein, 1985, 2004). Studying socially constructed phenomena leads to non-consensus and much debate as to what any given organisational construct means and represents (Alvesson, 2002; J. P. Campbell, 1977; Martin, 1992; Molnar & Rogers, 1976). Divergence in literature and dissonance about the development of criteria for effectiveness has been well summarised. The broad themes that impact on this thesis are outlined below (Table 3) (Cameron, 1986).
Table 3: Consensus and conflict within the organisational effectiveness literature

<table>
<thead>
<tr>
<th>Consensus</th>
<th>Conflict</th>
</tr>
</thead>
<tbody>
<tr>
<td>Despite the ambiguity and confusion surrounding it, the construct of organisational effectiveness is central to the organisational sciences and cannot be ignored in theory and research</td>
<td>Evaluators of effectiveness often select models and criteria arbitrarily in their assessments, relying primarily on convenience</td>
</tr>
<tr>
<td>Because no conceptualisation of an organisation is comprehensive, no conceptualization of an effective organisation is comprehensive. As the metaphor describing an organisation changes, so does the definition or appropriate model of organisational effectiveness</td>
<td>Indicators of effectiveness selected by researchers are often too narrowly or too broadly defined, or they do not relate to organisational performance</td>
</tr>
<tr>
<td>Consensus regarding the best, or sufficient, set of indicators of effectiveness is impossible to obtain. Criteria are based on the values and preferences of individuals, and no specific construct boundaries exist</td>
<td>Outcomes are the dominant type of criteria used to assess effectiveness by researchers, whereas effects are most frequently used in policy decisions and by the public.</td>
</tr>
<tr>
<td>Different models of effectiveness are useful for research in different circumstances. Their usefulness depends on the purposes and constraints placed on the organisational investigation</td>
<td></td>
</tr>
<tr>
<td>Organisational effectiveness is mainly a problem-driven construct rather than a theory-driven construct</td>
<td></td>
</tr>
</tbody>
</table>

Adapted from (Cameron, 1986)

The result is a combined literature which is fragmented, noncumulative and confusing (Ashkanasy, et al., 2000; Cameron, 1985; Cameron & Quinn, 1999; Martin, 2002; Molnar & Rogers, 1976). This divergence within the literature provides the impetus for development of a theoretical framework which provides rationale and direction for the study which doesn’t appear to be commonplace within the literature (Kernick, 2004b; Wilderom, et al., 2000).

**Positivist dominance**

The study of OE has been dominated by positivist epistemologies (Cameron, 2005). Summarising the work of Maruyama (Maryuyama, 1976) and Van de Ven (Van de Ven, 1983), Cameron (2005) recognises the inappropriateness of traditional ways in which organisational scientists have dealt with the conceptualisation and analysis of complex organisational phenomena:

...unidirectional, uniformistic, competitive, hierarchical, quantitative, classificational and atomistic. The requirement for understanding complex
phenomena..., is formutualistic, heterogentic, symbiotic, interactionist, qualitative, relational and contextual thinking...our organisational theory matches our thinking in narrowness and unidirectionality. (Cameron, 1986, p. 551)

This dominant positivist approach has been challenged by researchers who recognise the need to better understand the interplays between organisational constructs including OC (Alvesson, 2002; Martin, 2002) and OE (Cameron, 1985; Connolly, et al., 1980; Faerman, 1985; Spray, 1976).

**Effectiveness as a mental abstraction**

Positivist researchers have supported a relatively narrow development of OE indicators and models (Cameron, 2005). This has been challenged by interpretivists who describe OE as a comprehensive construct that is theoretically driven and socially constructed (Cameron, 1985; J. P. Campbell, 1977; Spray, 1976). Cameron and Whetten (1983) suggest that there cannot be a universal model of OE and propose that it is more worthwhile trying to develop frameworks for assessing effectiveness than to try to develop theories of effectiveness.

Campbell (1977) agrees that a single definition of OE cannot be given, yet differs from Cameron and Whetten by inferring that a particular conceptualisation of OE may only be useful for certain purposes. OE is conceptualised by Campbell as a higher level theoretical construct – a mental abstraction that informs lower level indicators and operational activities:

Perhaps a better way to think of organizational effectiveness is an underlying construct that has no necessary and sufficient operational definition but that constitutes a model or theory of what organizational effectiveness is. The functions of such a model would be to identify the kinds of variables we should be measuring and to specify how these variables, or components, of effectiveness are interrelated – or should be interrelated. (J. P. Campbell, 1977, p. 18)

There is some support in the literature for OE as abstract, a higher level construct that includes a description of lower level concepts such as: productivity, efficiency, quality,

**Effectiveness as a social construct**

OE is socially constructed which suggests that it is made sense of and understood through the making of meaning around the construct, not through the discovery of the construct (Berger & Luckmann, 1967; Crotty, 1998; Weick, 1995, 2005; Zucker & Darby, 2005).

...all knowledge, and therefore all meaningful reality as such, is contingent upon human practices, being constructed in and out of interaction between human beings and their world, and developed and transmitted within an essentially social context. (Crotty, 1998, p. 42)

Based on this, what constitutes an effective organisation must be dependent upon who one asks, and a wide range of stakeholder views is likely to assist in the development of a comprehensive model of effectiveness (Cameron, 1986; Cameron & Quinn, 1999; J. P. Campbell, 1977; Connolly, et al., 1980; Martin, 1992; Michalski & Cousins, 2000; Spray, 1976). Individuals representing different organisations are likely to have agendas and OE is therefore politically charged. Multiple constituencies are required to make judgements about what OE is and what it means, which is influenced by their individual values, beliefs, interests and experiences (Cameron & Quinn, 1999; Michalski & Cousins, 2000). OE is therefore framed in this study as value-laden and decidedly judgemental (Cameron, 1985; J. P. Campbell, 1977; Michalski & Cousins, 2000; Spray, 1976).

Socially constructed phenomena are highly complex and contextually bound. Complexity comes from multiple constructions of meaning as individuals go about interacting in their daily lives (Berger & Luckmann, 1967). Organisations can range from relatively simple such as automated manufacturing in a factory, to highly complex as seen within the health sector (Kernick, 2004b). As such, the considerations of what should be included in a model of effectiveness are likely to be different. Organisational context is likely to have a significant influence on the relationship between OC and OE and this must be considered as part of the conceptualisation of OE (Geertz, 1973; Louis, 1983, 1985).
Effectiveness as paradox

Paradox appeared increasingly in the organisational science literature from the 1980’s, with the claim that by exploring paradox, researchers might move beyond oversimplified and polarised notions to recognise the complexity, diversity and ambiguity of organisational life (Cameron, 1986; Denison, Hooijberg, & Quinn, 1995). Paradox has also been a consideration in the development of *a priori* typology based positivistic frameworks such as the Competing Values Framework. The effectiveness criteria within the CVF are thought of as *competing* rather than as compatible or necessarily congruent (Cameron & Quinn, 1999; Quinn & Rohrbaugh, 1981). Cameron (1986) suggests that OE is inherently dependent on paradox and that the presence of simultaneous opposites manifest in organisations that are highly effective, or that improve in their effectiveness. This is particularly the case under turbulent environmental conditions.

Lewis (2000) has challenged an unstructured approach to studying the influence of paradox on organisations, and through the synthesis of 300 papers outlines a framework which describes tensions and reinforcing cycles as manifestations of paradox in organisations, and how this might relate to management. Paradoxical tensions are described as perceptual, cognitively or socially constructed views that are at poles with each other and that obscure the relationship between the contradictions posed. Lewis describes reinforcing cycles as paralysing defences which initially reduce discomfort and anxiety but will eventually intensify the situation. Management involves exploring these tensions and tapping the potential energy from these. Examples of paradox from other OE studies (Cameron, 1986; Lewis, 2000; Peters & Waterman, 1982) which warrant consideration include:

- New ideas and fresh perspectives along with maintenance of continuity/stability and history of roles
- Reinforcing internal morale whilst being market sensitive and reactive to maintaining an external focus
- Predictable strategic control along with hostile environmental conditions
- Leadership focus includes symbol with substance
- Reinforcement of core OC but at the same time new innovations helping to change the character
Models of effectiveness from the literature

The previous section has outlined OE as a construct. This section provides a summary of how OE constructs have been incorporated into models of effectiveness, following different approaches. Goal, system resource, internal processes, strategic constituencies, competing values, legitimacy, fault-driven, and high performance systems are models of OE that have been reported in the academic literature (Cameron, 1984). Overlap between these models allows reduction to three main conceptualisations: goal attainment, systems resources and multi-constituent. These models have developed over time as competing, but are best thought of as complementary and interdependent (Cameron, 1986).

Goal attainment models

The focus of goal attainment is on efficiency and output measures and OE is viewed in terms of internal organisational objectives and performance (Georgopolous & Tannebaum, 1957; Perrow, 1961). OE is determined by comparing performance with organisational goals, either in official documents from administrators or as operative goals reflecting tasks and activities performed within the organisation. The use of goals as a standard for evaluating OE is seen as problematic due to misrepresentation of the purpose, or where goals are multiple and intangible (Molnar & Rogers, 1976).

Pursuit of financial goals as the primary objective of organisation has dominated the literature, mainly through the vogue of corporate culture (Deal & Kennedy, 1982; Kotter & Heskett, 1992; Peters & Waterman, 1982). Financial performance indicators are convenient, but there is a level of short term-ism in this approach having a retrospective rather than a forward orientation (Wilderom, et al., 2000). A lack of consistency in accounting methods and a proneness to manipulation causing catastrophic misappropriation has occurred in one large US company as a result of this approach (Fox, 2003).

Systems resources models

Framing through a systems approach sensitises evaluators to the importance of internal pressures in improving OE. Organisation-environment relations are the focus of the system resource approach (Yuchtman & Seashore, 1967). To a greater extent than goal attainment, the system resource model views the organisation as an open system. OE is defined in terms of an organisations ability to exploit its environment by acquiring scarce
and valued resources. Under this definition, effective organisations are those that receive greater resource inputs from their environments (Yuchtman & Seashore, 1967).

**Stakeholder or multi-constituent models**

Scholars have been arguing for multidimensional conceptualisation and assessment of OE since the early 1970s. Discontent with a single financial focus and the realisation that organisations are often fraught with multiple conflicting goals has driven this (J. P. Campbell, 1976a, 1976b, 1977; Spray, 1976; Steers, 1975). In addition to a call for a multidimensional focus on OE, proponents of multi-stakeholder approaches push for a wider approach to OE than described by the rational goal or systems resource approaches (Connolly, et al., 1980; Donaldson & Preston, 1995; Preston & Sapienza, 1990).

The multi-constituent approach emphasises social references and extrinsic measures, indicating the extent to which stakeholders needs are satisfied (Connolly, et al., 1980). Adopting this approach requires acceptance of OE as a socially constructed phenomenon underpinned by value judgement (J. P. Campbell, 1976a, 1976b). This approach fits with the context of OE in community pharmacy due to; (a) the need to understand what constitutes an effective community pharmacy from the viewpoint of policy-maker, pharmacy staff and other health-provider organisations and, (b) the organisational goals and systems approaches share the assumption that it is possible and desirable to arrive at a single set of evaluative criteria and thus at a single statement of organisational effectiveness. The multi-constituency approach relaxes this assumption and proposes the view that potentially, many statements can be made about the focal organisation, reflecting the criterion sets of different individuals and groups (Connolly, et al., 1980; Michalski & Cousins, 2000).

**Conceptualisation of OE in this thesis**

In this thesis OE is conceptualised as a high level mental abstraction that is socially constructed and bound by context. The rationale for taking this approach is as follows. First, it supports an understanding of the relationships between complex constructs through theory building (J. P. Campbell, 1977). Socially constructed phenomena are complex and context bound. The complexity comes from the multiple and different constructions of meaning of OE by individuals as they go about interacting with others in their daily lives (Berger & Luckmann, 1967). Second, that which constitutes an effective organisation must be dependent upon who one asks (Cameron, 1986; Cameron & Quinn,
1999; J. P. Campbell, 1977; Connolly, et al., 1980; Martin, 1992). A wide range of stakeholders who have influence, or a vested interest in what an effective organisation should look like within a particular context, are likely to assist in the development of a comprehensive model of effectiveness (Cameron & Quinn, 1999; Connolly, et al., 1980). Third, individuals involved in the development of OE constructs are likely to have different agendas, so the constructs are multidimensional and politically charged. Fourth, if individuals from multiple constituencies are required to make judgements about what effectiveness is and what it means, this will invariably be influenced by their values, beliefs, interests and experiences (Cameron & Quinn, 1999; Michalski & Cousins, 2000). As such, effectiveness must be value-laden and therefore decidedly judgemental (Cameron, 1985; J. P. Campbell, 1976a, 1976b, 1977). Finally, effective organisations are expected to take both an internal and an external focus toward the business (Sanchez & Heene, 2004).

The community pharmacy effectiveness literature

Internationally, the following effectiveness criteria have been applied to the context of community pharmacy:

- Process and patient health outcomes (Ben-Joseph, Miralles, & Angaran, 1995; Capo & Rutledge, 1999).
- Service excellence systems and patient satisfaction (Craig, Crane, Hayman, Hoffman, & Hatwig, 2001; Panyawuthikrai, et al., 2005).
- Quality systems or total quality management (TQM) (R. A. Jackson, et al., 1975; Oviedo, Antonello, & Di Pauli, 2002; M. B. Roberts & Keith, 2002).
- Financial indicators including sales, gross profit, profit per lineal metre, efficiency per lineal metre, expenses and customer statistics have been used in community pharmacy (Sissian, 2006).

Separately these indicators provide some idea of the sorts of effectiveness criteria that could be considered when developing a profile of an effective community pharmacy. However, neither this literature nor health policy provides a model of an effective community pharmacy that can be used in this study. Based on the interpretative approach
to this thesis, this chapter has provided a conceptualisation of OE which allows operationalisation in the field as outlined in the following section.

**Approaches to operationalising OE**

This thesis is underpinned by ontological assumptions of social constructionism and an epistemology that is interpretative. This fits with OE being socially constructed, value-laden, paradoxical, decidedly judgemental, and context specific (Cameron, 1985, 1986; J. P. Campbell, 1977). An inductive approach to OE construct development is appropriate in order to gain an understanding of what constitutes an effective community pharmacy under New Zealand health care policy, from a multi-constituency viewpoint.

There are multiple options for operationalising OE in this study including: the Donabedian model, the Balanced Score Card, Standard Setting, the Competing Values Framework, and a myriad of Delphi techniques. Appendix 1 provides a review of the options that were available at the time this study was being conceptualised. As outlined in the research design (Chapter 7), Trochim’s Concept Mapping was selected as an interpretive approach to construct development. This technique lends itself to mapping socially constructed, value-laden organisational phenomena through a multi-stakeholder perspective (Michalski & Cousins, 2000; Trochim & Kane, 2005).

**Chapter summary**

As with the OC construct, the notion of OE is not new. There is a literature which outlines the evolution of the OE construct over time and it is as equally fragmented and as polarised as the OC literature. As such, outlining a single definition of OE which supports all viewpoints is problematic. Being socially constructed, value-laden, politically charged and decidedly judgemental this study is framed to enable inductive development of the OE construct through a multi-constituent stance.
Chapter 5: Culture-Effectiveness Studies

Purpose of Chapter 5

The purpose of this chapter is to introduce how the OC-OE interface has been explored, in order to support the development of a theoretical framework for this study.

The framing of OC and OE in culture-effectiveness studies

Outside of the health care sector, Wilderom et al. (2000) highlight that most OC-OE studies lack a clear conceptual frame of the nature of the link and they call for a deeper, richer understanding of the OC-OE relationship. The health care literature is similar, with Mannion, Davies, Scott and colleagues highlighting the considerable challenge in conceptualising and operationalising OC and OE as distinct constructs (Davies, et al., 2007; Mannion, Davies, Harrison, Konteh, Greener, et al., 2010; Scott, Mannion, et al., 2003a; Scott, Mannion, Marshall, et al., 2003). To some extent the understanding of the OC-OE relationship is at an immature stage. In this thesis OC and OE are framed as socially constructed and so it is rational then that the relationship between OC and OE is also socially constructed. The aim of this thesis was to achieve alignment between the conceptualisation and operationalisation of OC, OE and the relationship between them (Figure 1).

![Figure 1: Framing culture, effectiveness and relationship](image-url)
Chapter 5: Culture-Effectiveness Studies

There are a number of options for the framing of OC and OE which have been used in the existing literature. Options for framing include a two by two matrix combination of positivist and subjectivist approaches as follows:

1. Culture as a variable (positivist), effectiveness as hard endpoint performance (positivist)

2. Culture as a variable (positivist), effectiveness through bottom up development – a mental abstraction (interpretive)

3. Culture as a metaphor (interpretative), effectiveness as hard endpoint performance (positivist)

4. Culture as a metaphor (interpretative), effectiveness through bottom up development – a mental abstraction (interpretative)

In options 1 and 4, OC and OE are conceptualised within the same frame. Option 1 adopts the positivistic paradigm whilst option 4 adopts the subjectivist approach. In option 1, both OC and OE are framed as variables. In option 4, OC and OE are framed as socially constructed. Options 2 and 3 frame OC and OE within different frames, one positivist the other subjectivist and vice versa.

A summary of the conceptualisation of OC and OE in the existing literature is outlined in Appendix 2. The majority of studies have been framed using option 1 and a smaller number of health care studies have utilised options 2 and 3. There is considerable blurring of conceptualisation within and across the studies (Appendix 2). This is not unexpected as few researchers develop studies which lie at the extreme poles of the positivist-interpretivist spectrum (Creswell, 2003; Hussey & Hussey, 1997). The options for conceptualisation provide a pragmatic framework for analysing previous studies and identifying literature gaps. There is a dearth of studies where OC and OE are both inductively generated, within an interpretative stance and this thesis is expected to contribute in a significant way to this. Through this approach there is an expectation of an understanding of the complex nature of the relationship between OC and OE.

Framing of the OC-OE relationship

The nub of the research issue of this thesis involves the relationship between OC and OE. As such the framing and reporting of the relationship in the existing literature is relevant. The relationship between OC and OE is expected to be influenced by the manner in which OC and OE themselves are conceptualised. That is, the relationship is bounded by
the framing of the individual constructs, as well as the framing of the relationship between them.

Studies have been dominated with OC conceptualised as a variable, and OE conceptualised as a collection of hard measurable endpoints (Appendix 2). If OC and OE are framed as socially constructed, it stands to reason that the nature of the relationship between them is socially constructed and contextually bound. To unpack the nature of this relationship and to fully understand it, there was a need to conceptualise OC and OE within the same frame and in the case of this study in an interpretative way (Figure 2). Although most studies (Appendix 2) have been developed with OC and OE within the same paradigm, the design has not allowed exploration of the relationship beyond a linear, causal, and unidirectional positive or negative one. In this way a ‘black box’ approach is taken (M. Schwartz, 2001) Figure 4. The wider literature has adopted linear, causal and unidirectional approaches to the OC-OE relationship and there has been movement away from this, and recognition within the health care sector of the need for a deeper, richer understanding, alongside the application of novel methodological approaches (Braithwaite, Hyde, et al., 2010; Davies, et al., 2007; Kernick, 2002, 2004a; Mannion & Davies, 2003; Mannion, et al., 2005; Scott, Mannion, et al., 2003a; Scott, Mannion, Marshall, et al., 2003). A view of patterns of culture, contingent and potentially recursive relationships has largely replaced this notion of linearity (Davies, et al., 2007; Mannion, Davies, Harrison, Konteh, Greener, et al., 2010; Mannion, et al., 2005; Scott, Mannion, Marshall, et al., 2003).

Figure 2: Conceptualising culture, effectiveness and relationship
Framing of the relationship within non-health care academic studies

Table 4 provides a summary of academic studies that go beyond the popular press and corporate culture studies outlined in Chapter 3. Through the 1980’s and early 90’s a post-positivist flavour appeared in the organisational science literature and this was reflected in OC research (Martin, 1992, 2002; Smircich, 1983). There was the realisation that OC is likely to have some influence on corporate performance, but that approaches using direct causal empiric models and methods were not sophisticated enough to elucidate the nature of the relationship between OC and OE, beyond unidirectional causality (Martin, 1992; Saffold, 1988; Siehl & Martin, 1990). This seems logical when considering the socially constructed nature of OC and OE.

Although defiant of a simple OC-OE link, the interpretive groundswell has not produced studies which explore the nature of the relationship between OC and OE. There are few studies where OC and OE constructs are conceptualised and operationalised within the same research paradigm and the relationship between them explored. This thesis takes that approach.
## Table 4: Non-health care studies

<table>
<thead>
<tr>
<th>Author(s)</th>
<th>Culture Construct</th>
<th>Effectiveness construct</th>
<th>Industry context</th>
<th>Description of relationship</th>
</tr>
</thead>
<tbody>
<tr>
<td>Denison &amp; Mishra (1995)</td>
<td>Dimensions of Involvement Consistency Adaptability Mission</td>
<td>Perceived performance and objective performance</td>
<td>764 companies across 5 main industry categories in the US</td>
<td>Mission is the strongest predictor of return on assets, although involvement, consistency and adaptability were all positively related The flexibility traits of involvement and adaptability best predict sales growth while profitability is best predicted by stability traits such as mission and consistency</td>
</tr>
<tr>
<td>Rousseau (1990)</td>
<td>Team or satisfaction oriented norms Security oriented norms</td>
<td>Financial indicator Amount of money raised</td>
<td>32 large units of a nationwide voluntary organisation in US</td>
<td>Less emphasis on security related norms was significantly related to high performance</td>
</tr>
<tr>
<td>Calori &amp; Sarnin (1991)</td>
<td>Work related values Management practices Cultural strength</td>
<td>Financial performance Return on investment Return on sales Growth</td>
<td>Five French firms in mature industries pursuing a differentiation marketing strategy</td>
<td>Many values, management practices and indicators of cultural strength were positively related to high growth Only a few values and practices were related to profitability</td>
</tr>
<tr>
<td>Gordon &amp; Di Tomaso (1992)</td>
<td>Cultural strength Adaptability Stability Strategic fit</td>
<td>Financial indicators Short term performance including growth of assets and growth of premiums</td>
<td>11 insurance companies in the US</td>
<td>Cultural strength defined as consensus thinking and adaptability are both predictive of short term financial performance</td>
</tr>
<tr>
<td>Kotter &amp; Heskett (1992)</td>
<td>Cultural strength</td>
<td>Long term economic performance (11 years) Annual increase in net income Annual return on investment Annual increase in stock price</td>
<td>US firms across multiple industries</td>
<td>Positive yet moderate relationship reported between cultural strength and long-term economic performance</td>
</tr>
<tr>
<td>Author(s) (Year)</td>
<td>Culture Construct</td>
<td>Effectiveness construct</td>
<td>Industry context</td>
<td>Description of relationship</td>
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<tr>
<td>Marcoulides &amp; Heck (1993)</td>
<td>Organisational structure Organisational values Task organisation Organisational climate Employee attitudes</td>
<td>Financial performance Market share Profit Return on investment</td>
<td>26 diverse firms in US</td>
<td>All dimensions shown to have <em>some direct or indirect effect</em> on financial performance indicators</td>
</tr>
<tr>
<td>Petty et al (1995)</td>
<td>Teamwork Trust and credibility Performance improvement Common goals and organisational functioning</td>
<td>Outcomes regarding Operations Customer accounting Support services Employee safety and health</td>
<td>12 service units within a US based firm</td>
<td>Teamwork is <em>associated with</em> high performance</td>
</tr>
<tr>
<td>Kwantes &amp; Boglarksy (2007)</td>
<td>Facets of organisational culture</td>
<td>Leadership effectiveness Personal effectiveness</td>
<td>Six country study</td>
<td>Organisational culture was <em>strongly perceived as being related</em> to both leadership effectiveness and personal effectiveness Aspects of organisational culture that promote employee fulfilment and satisfaction were <em>uniformly viewed as positively related</em> to leadership and personal effectiveness The <em>perceived relationship</em> across samples was stronger between organisational culture and organisational effectiveness than between organisational culture and personal effectiveness</td>
</tr>
</tbody>
</table>
Relationship described as positive, negative or predictive

The populist literature has been challenged as simplistic by positivist (Ashkanasy, et al., 2000; Denison & Mishra, 1995) and more interpretive researchers (Meek, 1988; Sackmann, 1991; Trice & Beyer, 1993). Denison (1990) identified positive and negative relationships between dimensions of OC and financial performance (Denison, 1990). Denison conceptualised the OC-OE link within different frames (Denison & Mishra, 1995). Denison’s approach to theory development is the closest to this thesis. The conceptual framework that Denison developed is underpinned by values and beliefs driving outcomes which result in a successful future for organisations (Figure 3).

Denison (1990) should be applauded for formulating a framework upon which theory could be developed. A theoretical framework allows the relationship between OC and OE to be conceptualised and operationalised in a manner that is coherent with ontological and epistemological stance. Although Denison’s work has been informative for the development of the theoretical framework of this study there are aspects of this study which warrant consideration.

Figure 3: Denison’s conceptual framework
Denison and Mishra (1995) suggest their model is developed through grounded theory technique which does not appear to be the case. The OE construct is defined by financial indicators and is not framed within the same research paradigm as the OC construct (Denison & Mishra, 1995). Denison and Mishra’s study has advanced the development of a cultural theory of effectiveness. There is a search for a causal link through inductive development of the cultural construct. OC is viewed from an integrated approach as a variable while OE is described in terms of financial market success. A direct causal relationship is described.

Rousseau (1990) found that little emphasis on security oriented norms was significantly related to high performance. The link between culture including work-related values, management practices, strength and performance in terms of return on investment, return on sales and growth has been reported as positively related (Calori & Sarnin, 1991). A positive predictive relationship between cultural strength, adaptability, stability, strategic fit and financial indicators of performance was also reported in studies by (Gordon & Di Tomaso, 1992; Kotter & Heskett, 1992). Cultural strength has been defined in so many ways (Kotter & Heskett, 1992; Ogbonna & Harris, 2000; Saffold, 1988; Schein, 1985, 2004) and the strength-performance relationship has been shown to be impacted externally by environmental factors which are not able to be controlled for (Sorensen, 2002). In this manner cultural strength applies to certain scenarios such as stable markets, but not in volatile periods of change.

Relationship described as having ‘some direct or indirect effects’

Wider dimensions of OC have also been studied. Organisational structure, organisational values, task organisation, organisational climate and employee attitudes have all been shown to have some direct or indirect effect on financial performance including market share, profit and return on investment (Marcoulides & Heck, 1993).

Cultural dimensions of teamwork, trust and credibility, performance improvement and common goals and organisational functioning have been investigated in relation to outcomes regarding operations, customer accounting, support services, employee safety and health and marketing (Petty, Beadles, Lowery, Chapman, & Connell, 1995). Teamwork was found to be associated with performance.
Relationship described as ‘strongly perceived to be related’

Kwantes and Boglarsky (2007) report OC was strongly perceived as being related to leadership effectiveness and personal effectiveness. Further, aspects of OC that promote employee fulfilment and satisfaction were uniformly viewed as positively related to leadership and personal effectiveness. The perceived relationship across samples was stronger between OC and leadership effectiveness than between OC and personal effectiveness. Kwantes and Boglarsky investigated the nature of the relationship between OC and one aspect of effectiveness through determining perceptions of individuals and examining the link between these constructs. OC was seen as an individual perception of an organisational phenomenon, and the focus of the study was on the perceptions of relationships between organisational outcomes at the individual level.

In this way, Kwantes and Boglarsky determine perceptions and the nature of the relationship rather than elucidating some form of concrete causal link between phenomena treated as two independent variables. This is an important study for this thesis as it supports adoption of a perceptual approach to exploring the nature of the relationship between OC and OE.

Summary of literature gaps – non health care studies

OC studies outside of the health care context have been empiric in nature, looking to uncover a unidirectional, causal link between OC and OE. A cultural theory of effectiveness has been central to the conceptualisation of these studies, where OC is an important key to organisational functioning and therefore to the short and long term financial success of organisations. The impetus for testing the link has been largely driven by curiosity, generated by management gurus through the popular press (Peters & Waterman, 1982), and academic consultants moving into uncharted grounds (Schein, 1985, 2004).

The language used to describe the relationship between OC and OE outlined in the previous section has a positivistic flavour and includes terms such as: positively predictive, negatively predictive, positively related and strongly predictive. Diverse methodological issues preclude drawing a unidirectional causal link amongst many of these studies. Wilderom et al. (2000) highlight most studies lack a clear conceptual notion of the nature of the culture effectiveness link. In addition to the lack of conceptual framework, the following conclusions can be drawn from these studies:
Chapter 5: Culture-Effectiveness Studies

- The concept of corporate culture dominates the management literature, with OC being conceptualised as a variable.
- The link between OC and OE is framed as causal and unidirectional i.e., OC driving OE.
- The conceptualisation of OC is underpinned by cultural strength – a dominant integration approach is taken.
- The selection of narrow and convenient financial indicators providing the sole criteria for success.
- Studies which include a level of subjective perception within an empiric design appear to select performance criteria wider than financial indicators alone.
- Aside from the attempt to make a causal link between two variables, the nature of the relationship between these two constructs has not been well explored.

Framing of the relationship in healthcare studies

The focus of OC research within health has been on conceptualising and operationalising OC as a variable. Scott and colleagues (Scott, Mannion, et al., 2003a; Scott, Mannion, Marshall, et al., 2003) highlight that studies vary methodologically, from ideographic to large-scale nomothetic statistical analyses. Few studies have used mixed approaches of ideographic and nomothetic methods. Studies differ not only in terms of methods employed, but also the types of health care organisations involved, the participants and how OC and OE have been conceptualised and operationalised.

Of the empiric studies in health care, a link between culture and performance is fully supported in less than half (Argote, 1989; Gerowitz, 1998; Gerowitz, Lemieux-Charles, & Heginbothan, 1996; S. Jackson, 1997). In one study a link between OC and performance is claimed, but significant methodological problems make the link appear tenuous (Nystrom, 1993). Half of the studies did not provide sound evidence to support a causal link between OC and performance.

Health care studies supporting a causal link

The studies demonstrating some association between culture and effectiveness adopted diverse approaches to OC and OE assessment, but are generally positivistic and within the secondary care sector in the United States of America (USA) (Table 5).
### Table 5: Health care studies supporting a causal link

<table>
<thead>
<tr>
<th>Author(s) (Year)</th>
<th>Culture construct</th>
<th>Effectiveness construct</th>
<th>Industry context</th>
<th>Description of relationship</th>
</tr>
</thead>
<tbody>
<tr>
<td>Argote (1989)</td>
<td>Cultural norms</td>
<td>Work unit effectiveness</td>
<td>30 emergency units in US Physicians $n=463$ Nurses $n=278$</td>
<td>Agreement about norms within and between interacting groups is positively associated with the effectiveness of emergency units</td>
</tr>
<tr>
<td></td>
<td>Normative complementary</td>
<td>Promptness of care</td>
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<td></td>
<td>Normative consensus</td>
<td>Quality of medical care</td>
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<tr>
<td></td>
<td></td>
<td>Quality of nursing care</td>
<td></td>
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<tr>
<td>Gerowitz (1996)</td>
<td>Top management culture (CVF)</td>
<td>Non-financial indicators: Employee loyalty and commitment External stakeholder satisfaction Internal consistency Resource acquisition Overall adaptability</td>
<td>Hospitals in USA, UK, Canada</td>
<td>Positive and significant relationship to organisational performance for clan, rational and developmental cultures (not hierarchical) Legitimacy of culture as a variable Political economy influences the distribution of culture types</td>
</tr>
<tr>
<td>Gerowitz et al. (1998)</td>
<td>CVF</td>
<td>Outcome indicators: Organisational adaptability and global performance through subjective perceptions of senior managers</td>
<td>Management within hospitals in the US</td>
<td>Higher performance found on external stakeholder satisfaction and resources acquisition domains in organisations that had initiated TQM particularly with open and rational cultures. Culture type appears to be more important than TQM initiation with respect outcomes raising the question of whether culture impacts TQM or vice versa</td>
</tr>
<tr>
<td>Jackson (1997)</td>
<td>Handy’s Typology Person Task Power Role</td>
<td>Number of patients who did not attend (DNA) outpatient appointments</td>
<td>UK hospital outpatient clinics</td>
<td>Predominant culture is role culture but that subcultures were found to exist Overall culture was not customer focussed which was seen to have a detrimental effect on DNA rates and it was recommended that the organisation adopt a more customer focussed culture</td>
</tr>
<tr>
<td>Nystrom (1993)</td>
<td>Kilmann-Saxton Culture Gap Survey Managerial Values Questionnaire Organisational Commitment Questionnaire Job diagnostic survey</td>
<td>Effectiveness determined through managers perceptions, comparing overall performance of their organisation with other organisations delivering similar services</td>
<td>Senior managers ($n=41$) and executives ($n=36$) in 13 health care organisations in the US</td>
<td>A link between culture and performance is claimed, but significant methodological problems preclude more than a tenuous causal link between these two constructs</td>
</tr>
<tr>
<td>Author(s) (Year)</td>
<td>Culture construct</td>
<td>Effectiveness construct</td>
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</tr>
<tr>
<td>Mannion et al. (2005)</td>
<td>Cultural characteristics developed through interview Nature of executive Leadership style Management integration Management orientation Senior management preoccupation Middle management accountability Rewards Information systems Performance management Recruitment policies Local health economy engagement Taboos</td>
<td>High and low performance based on ‘Star rating’</td>
<td>8 to 11 key managers and clinicians within high and low performing UK</td>
<td>Significant divergent cultural patterns were observed within cases grouped by performance including: leadership and management orientation; accountability and information systems; human resources policies and relationship with local health economy Organisational culture is associated in a variety of non-trivial ways with the measured performance of the case site hospitals studied</td>
</tr>
<tr>
<td>Davies, Mannion, Jacobs et al. (2007)</td>
<td>CVF</td>
<td>Performance indicators Zero or one star Inpatient survey – respect/dignity Data quality Staff opinion survey Median waiting time</td>
<td>Senior management in selected UK hospitals</td>
<td>A contingent relationship between organisational culture and performance based on senior management team culture</td>
</tr>
</tbody>
</table>
Argote (1989) suggests that their study provides empirical evidence that agreement about norms within and between interacting groups is positively associated with the effectiveness of emergency units. Argote outlines two main limitations to be addressed in future research which are relevant to this thesis. First, despite evidence to suggest norms affect performance (Hackman, Brousseau, & Weiss, 1976) the data do not enable establishment of causality. Second, the measures of norms are very narrow and examination of a broader set of relationships and a wider array of norms from the perspective of all individuals involved in the relationship is called for.

Gerowitz and colleagues undertook two studies investigating OC and performance (Gerowitz, 1998; Gerowitz, et al., 1996). The dominant cultures of the hospital management teams in the first study were positively and significantly related to organisational performance. Through use of the CVF, Gerowitz and colleagues (1996) suggest the findings support the legitimacy of OC as a variable and the premise that the political economy influences the distribution of national culture types. In the second study by Gerowitz (1998), higher performance was found that OC type appears to be more important than TQM initiation with respect to outcomes.

Taking an ideographic approach, Jackson (1997) investigated the effect of outpatient culture on non-attendance rates. Participants included both patients and staff of hospital outpatient departments. The overall performance indicator was the number of patients who did not attend (DNA) outpatient appointments. The OC was assessed using a mixed methods approach including use of telephone interviews and non-participant observation. Jackson adopted Handy’s (1985) typology of OC which describes four main types of culture: person, task, power and role. The author concluded that the predominant OC was role culture, but subcultures were found to exist. Role cultures are associated with bureaucracy and are found more commonly in public service organisations. The overall culture was not customer focused which was seen to have a detrimental effect on DNA rates and it was recommended that the organisation adopt a more customer focused culture.
Relationship described as ‘a tenuous causal link’

Nystrom (1993) investigated the impact of OC on organisational commitment, job satisfaction and performance, along with the link between OC and strategy. OC was operationalised using a number of surveys including: Kilmann-Saxton Culture Gap Survey (Kilmann & Saxton, 1983), Managerial Values Questionnaire (England & Keaveny, 1969), Organisational Commitment Questionnaire (Moday, Steers, & Porter, 1979) and the Job Diagnostic Survey (Hackman & Oldham, 1975). Effectiveness was determined through manager’s perceptions, comparing the overall performance of their organisation with other organisations delivering similar services. A tenuous causal link was made but there were considerable methodological issues with the study.

Relationship described through ‘divergent cultural patterns’

Mannion et al. (2005) report cultural divergence within high and low performing hospitals in the UK. OC was assessed through exploring the views of middle and senior management within case sites selected as high and low performing according to the Star Rating System. Semi structured interviews with 8 to 11 key managers and clinicians within each hospital site generated a series of cultural characteristics:

Significant divergent cultural patterns were observed within cases grouped by performance including: leadership and management orientation; accountability and information systems; human resources policies and relationships within the local health economy. The authors highlight that in the context of the case sites, OC is associated in a variety of non-trivial ways with the measured performance of the case site hospitals studied (Mannion, et al., 2005).

Mannion et al. (2005) frame OC in the integration mode, whereby the viewpoint of senior management and clinicians are identified in order to describe categories of cultural manifestation. It would appear that OC is framed as a variable (Martin, 1992, 2002; Martin & Siehl, 1983). However, interviews are used as a method of understanding OC and the relationship with OE, suggesting a subjective element to their study and movement away from direct linear relationships toward complex interaction. Schein’s stance of integrated culture is adopted but the cultural categories are inductively generated. The selection of the star performance criteria as an indication of effectiveness reflects a focus on measured performance which is what one would expect based on the aim of the study. Exploring the nature of the relationship between OC and OE was
approached by Mannion and colleagues (2005) with OC and OE being operationalised within the same paradigm – both as variables; OC framed through an integration perspective and effectiveness as measured performance. In some respects this study is the health care equivalent of the study by Denison and Mishra (1995) in the mid 90s but reflects the movement in health care away from linearity maintained in management literatures.

The study by Mannion and colleagues (2005) is an important addition to culture-effectiveness literature in health care and is of interest to this thesis for three main reasons. First, there is inductive development of the OC construct using qualitative techniques which provide a richer and more varied construct. Second, the authors re-introduce the question of the impact of dysfunctional cultures on performance, and this is contrary to cultural strength theory that has dominated the literature. Third, the notion of a recursive influence of performance on culture is posited.

In a later longitudinal study this group confirmed previous findings of a contingent relationship between OC and performance (Mannion, Davies, Harrison, Konteh, Greener, et al., 2010; Mannion, Davies, Harrison, Konteh, Jacobs, et al., 2010). They found that cultures changed over time and that current performance is the result of previous cultures. The notion of recursivity was not studied in-depth, although there was a suggestion that some of the health care organisations under study owned their identity as high achieving organisations. The recursive influence of high performance on the change in OC over time appears to require further investigation.

Relationship described as ‘contingent and potentially recursive’

Davies et al. (2007) report contingent relationships between OC and performance based on senior management team culture in English hospital organisations. OC was assessed using the Competing Values Framework (CVF) and organisational performance was assessed using a wide variety of routinely collected data including organisational characteristics and performance indicators (Table 6).
Table 6: Organisational characteristics and performance

<table>
<thead>
<tr>
<th>Organisational characteristic</th>
<th>Performance indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average number of beds</td>
<td>Zero or one star</td>
</tr>
<tr>
<td>Merged</td>
<td>Inpatient survey – respect/dignity</td>
</tr>
<tr>
<td>Proportion of management salaries</td>
<td>Data quality</td>
</tr>
<tr>
<td>Proportion of consultant salaries</td>
<td>Staff opinion survey</td>
</tr>
<tr>
<td>Proportion of nurse salaries</td>
<td>Median waiting time</td>
</tr>
<tr>
<td>Specialisation Index</td>
<td></td>
</tr>
<tr>
<td>Research revenue</td>
<td></td>
</tr>
</tbody>
</table>

Source: (Davies, et al., 2007)

The authors highlight that “in addition to structural relationships, the results also provide important evidence that performance may vary in contingent ways between trusts with different dominant cultures” (Davies, et al., 2007, p. 58).

The viewpoint of organisational leaders representing OC is contra to the conception of OC in this thesis. The study by Davies and colleagues (2007) approaches culture and performance within the same research paradigm. OC is conceptualised as an organisational variable that has been operationalised through a positivistic rating scale (CVF). Likewise OE is conceptualised as measured performance based on data collected routinely. The study has a positivistic flavour. The relationship is tested exclusively through quantitative multivariate analysis. The approach taken in this thesis is different.

In addition to contributing to the understanding of contingency and the culture-effectiveness relationship, Mannion and Davies have spurred the realisation that the potential recursive aspect requires investigation to gain a richer understanding of the nature of the relationship between OC and OE (Davies, et al., 2007; Mannion, Davies, Harrison, Konteh, Greener, et al., 2010; Mannion, et al., 2005). If taking a pure positivistic frame, this will require longitudinal study (Davies, et al., 2007). However, adopting an interpretive frame allows this recursive relationship to be examined through the perceptions of key informants.

The health care literature – studies not supporting a causal link

Studies that do not support a clear link between OC and health care performance are summarised in Table 7 and a narrative provided in the following section (Scott, Mannion, et al., 2003a; Scott, Mannion, Marshall, et al., 2003).
Zimmerman and colleagues undertook two studies published in 1993 and 1994 respectively. Both studies were described as ‘mixed,’ utilising ideographic and nomothetic methods in the context of intensive care unit (ICU) admissions.

Participants included physicians and nurses. The earlier of the two studies (Zimmerman et al., 1993) examined OC in terms of organisational practices associated with both high and low performing ICU’s. A large number of admissions were tracked for hard endpoint outcome measures of effectiveness (defined as actual/predicted death rate) and efficiency (defined as ratio of actual/predicted duration of ICU stay). Cultural dimensions were assessed through interview and direct observation, as well as through use of the Organisational Culture Inventory (Cooke & Lafferty, 1987). The findings suggest that ICU’s with superior risk-adjusted survival could not be distinguished by structural and organisational questionnaires or by global judgement following onsite analysis by the study team.

The second study by Zimmerman and colleagues (1994) examined structural and organisational characteristics at two ICUs, with marked differences in risk adjusted survival. Onsite interviews, direct observations and questionnaire responses provided the main outcome measures which tracked a large number of patient admissions. The authors found that structural and organisational questionnaires, self-evaluation by staff members, and implicit judgements of the research team failed to distinguish the high and low performing unit in terms of survival. The authors’ conclusions seemed contra to the study outcomes, suggesting the methods they used could identify organisational problems and potential means for improvement, yet no link was made between structure and practice and outcomes.
Table 7: Health care studies NOT supporting a causal link

<table>
<thead>
<tr>
<th>Author(s) (Year)</th>
<th>Culture construct</th>
<th>Effectiveness construct</th>
<th>Industry context</th>
<th>Description of relationship</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zimmerman et al. (1993)</td>
<td>Organisational practices Interview Observation OCI</td>
<td>Effectiveness: actual vs predicted death rate</td>
<td>ICU units in US hospitals Physicians and nurses Admissions ($n=3672$)</td>
<td>Superior risk-adjusted survival could not be distinguished by structural and organisational questionnaires or by global judgement following onsite analysis by the study team</td>
</tr>
<tr>
<td>Zimmerman et al. (1994)</td>
<td>Structural and organisational characteristics Onsite interviews Direct observations Questionnaire responses</td>
<td>Risk adjusted survival</td>
<td>Two ICU’s with marked differences in risk adjusted survival Admissions ($n=888$)</td>
<td>Organisational questionnaires, self-evaluation by staff members, and research teams implicit judgements failed to distinguish the high and low performing units in terms of survival</td>
</tr>
<tr>
<td>Rizzo et al. (1994)</td>
<td>Nursing unit culture and work characteristics Nursing unit cultural assessment tool</td>
<td>Unit skill-mix Cost measures Worked hours Quality assurance monitors Documentation of care Discharge planning Patient satisfaction</td>
<td>13 units in US Nurses ($n=235$)</td>
<td>Unclear link between culture and performance Authors believe that by using measures of unit culture and work characteristics they are facilitating effectively a change in the care delivery model</td>
</tr>
<tr>
<td>Shortell et al. (2000)</td>
<td>Competing Values Framework (CVF)</td>
<td>Risk-adjusted clinical outcomes Functional health status Patient satisfaction Cost measures</td>
<td>Coronary artery bypass graft surgery (CABG) $n=3045$ patients $n=16$ hospitals in the USA</td>
<td>A 2 to 4 fold difference in all major clinical CABG care endpoints. Little of the variation was associated with TQM or organisational culture</td>
</tr>
<tr>
<td>Shortell et al. (2001)</td>
<td>Competing Values Framework (CVF) Patient-centred culture measure</td>
<td>Key informant determined performance criteria – evidence based care measures</td>
<td>Medical groups in the USA Physicians ($n=1797$) Medical groups ($n=56$)</td>
<td>Organisational culture had no association with performance; except that a patient-centred culture in combination with a greater number of different types of compensation incentives used was positively associated with greater use of care management practices</td>
</tr>
</tbody>
</table>
Chapter 5: Culture-Effectiveness Studies

*Relationship described as ‘an unclear link’*

Analyses of nursing unit culture and work characteristics which impact on change in health care delivery suggest an unclear link between OC and performance. In 1994, Rizzo et al. (Rizzo, Gilman, & Mersmann, 1994) administered the Nursing Unit Cultural Assessment Tool (Coeling & Simms, 1993). The ascribed performance indicators included: unit skill-mix, cost measures, worked hours, quality assurance monitors, documentation of care, discharge planning and patient satisfaction. The focus of their work is on organisational redesign and change through cultural analysis. The authors believe that by using measures of unit culture and work characteristics they are effectively facilitating a change in the care delivery model.

*Relationship defined as ‘not associated’*

Shortell and colleagues undertook two studies which failed to demonstrate an association between OC and performance (Shortell, et al., 2000; Shortell, et al., 2001). The first study (2000) assessed the impact of TQM and OC on organisational performance. OC was operationalised via the CVF (Cameron & Quinn, 1999). Outcome measures included risk-adjusted clinical outcomes, functional health status, patient satisfaction, as well as cost measures in coronary artery bypass graft patients (CABG). Up to a fourfold difference in all major clinical care endpoints was observed across sites. The authors noted that little of this variation was associated with TQM or OC. Further, there was a need to examine the relationships among individual professional skills and motivations, group and micro-system team processes, organisation-wide culture, decision support processes, and incentives.

A second cross sectional study by Shortell and his group examined the role of compensation, market pressures and OC on performance (Shortell, et al., 2001). The CVF (Cameron & Quinn, 1999) and the Patient-Centred Culture Measure (Kralewski, et al., 1996) were used with physician respondents to operationalise OC. Key informants from the medical groups determined the performance criteria: evidence-based care management measures. OC was found to have no association except that a patient-centred culture in combination with a greater number of different types of compensation incentives used were positively associated with greater use of care management practices. Shortell and colleagues (2001) note that the lack of association with OC may be due to the relatively amorphous nature of most physician organisations at that time.
Summary of literature gaps – health care studies

Within the health care literature positivist approaches report tentative links between OC and performance in some but not all health care sectors (Scott, Mannion, et al., 2003a; Scott, Mannion, Marshall, et al., 2003). These studies describe a relationship which is contingent and potentially recursive (Davies, et al., 2007; Mannion, Davies, Harrison, Konteh, Greener, et al., 2010; Mannion, et al., 2005; Scott, Mannion, et al., 2003a; Scott, Mannion, Marshall, et al., 2003).

OC has been conceptualised mostly as a variable and operationalised through quadrant style typologies, most commonly the Competing Values Framework (Cameron, 1985; Cameron & Quinn, 1999). Both OC and OE have been conceptualised in the same positivistic frame.

Exceptions to these approaches include the study by Mannion et al. (Mannion, et al., 2005) which in part addresses the requirement for a richer understanding of the link between OC and effectiveness in health care (Scott, Mannion, et al., 2003a; Scott, Mannion, Marshall, et al., 2003). As with the non-health care studies the majority of empiric studies within health care report culture driven theories of effectiveness. This is expected based on the premise that cognition (the way(s) we think) is believed to influence behaviour–normative practices (the way(s) we act) (DiMaggio, 1997).

In the health sector, as with non-health care studies, there has been an attempt to investigate unidirectional causal links between OC and OE, and to describe them empirically. There is a need to move away from this approach, and this is made clear by reviews and commentary in both health and non-health care sectors (Kernick, 2002, 2004a; Scott, Mannion, et al., 2003a; Scott, Mannion, Marshall, et al., 2003; Wilderom, et al., 2000).

Less than half of health care studies demonstrate a definitive causal link between OC and performance. Under an interpretative frame, Siehl and Martin (1990) suggest that for conceptual and methodological reasons, a direct causal link between OC and OE may not be able to be empirically measured. This is supported by theories of mutual causality, over direct linear relationships (Lincoln & Guba, 1985). This is the likely reason that so many studies have failed to demonstrate anything beyond linear, unidirectional or causal relationships, if at all (Siehl & Martin, 1990). It is also the reason that organisational scientists and health services researchers recognise the need for deeper exploration of the
nature of the relationship between OC and OE (Ashkanasy, et al., 2000; Davies, et al., 2007; Mannion, et al., 2005; Scott, Mannion, et al., 2003a; Scott, Mannion, Marshall, et al., 2003; Siehl & Martin, 1990; Wilderom, et al., 2000). Understanding of the OC-OE relationship appears to be immature. Depth of study is necessary in health care due to inherent complexity which makes redundant the stance on linearity.

Chapter summary

The literature has adopted linear, causal and unidirectional approaches to framing and reporting the OC-OE relationship. The understanding of the OC-OE relationship appears immature and within the health sector there has been movement away from positivist approaches with recognition of the need to study complexity. A view of patterns of culture and contingent relationships has largely replaced the notion of linearity and there is recognition of the need to better understand potential recursive relationships.
Chapter 6: Theoretical Framework

Purpose of Chapter 6

The purpose of this chapter is to draw together in summary form the material of Chapters 3 to 5, and to argue for a theoretical framework that will guide the field work.

The drivers for development of a theoretical framework for this study

Based on the many possible conceptualisations of OC, OE and the relationship between them, development of a theoretical framework is important for culture-effectiveness research (Ashkanasy, et al., 2000; Martin, 2002). There are four main drivers for development of a theoretical framework for this thesis. First, it guides the development of the theory building process over time. Second, conceptualisation to guide OC-OE studies has not been commonplace. As such the causal links described in many studies have been tenuous. There is a contribution to the literature through predicking OC-OE studies on a theoretical framework. Third, the framework supports the conceptualisation and operationalisation of OC and OE as distinct constructs. Fourth, the process facilitates conceptualisation of the relationship between OC and OE within the same frame, and circumvents what is described later in this chapter as the ‘black-box’ relationship.

The theoretical framework is an intermediary guiding theory

A theoretical framework is used in research to outline possible courses of action or to present a preferred approach to a collection of ideas or thoughts, often called ‘constructs’ or ‘mental abstractions’ (Bacharach, 1989; Mintzberg, 2005). Such frameworks are a type of intermediate theory that aid exploratory studies by attempting to connect to all aspects of inquiry including: problem definition, research purpose, literature, epistemology, methodology, and data collection and analysis. Development of a theoretical framework places boundaries around theory development and assists in conceptualising OC and OE. Most importantly, it forces the framing of the relationship between OC and OE which is the nub of the theory development in this thesis. The development of a theoretical framework is expected to differentiate this thesis from previous OC-OE studies. One of the major differentiators is the framing of OC and OE within the same research paradigm through interpretative approaches.
Lack of conceptual frameworks

The majority of non-health care studies report a causal link between aspects of culture and either short or long term performance. However, Wilderom et al. (2000) cautions against drawing conclusions from these studies, stating that “although there are associations between cultural characteristics for short and long term performance, diverse methodological issues preclude drawing conclusive causal links” (Wilderom, et al., 2000, p. 629).

Within the organisational science literature, Wilderom et al. (2000) affirms that most studies lack a clear conceptual conception of the nature of the culture effectiveness link. There is a call for the development of studies underpinned by conceptual frameworks that are subjective in nature (Ashkanasy, et al., 2000; Linstead & Grafton-Small, 1992; Scott, Mannion, et al., 2003a; Wilderom, et al., 2000). The need for a more thorough understanding of the mechanisms at play (Siehl & Martin, 1990) and a richer approach to exploring reverse causality and/or recursive nature of this relationship provides the impetus for development of the theoretical framework (Davies, et al., 2007; Mannion, Davies, Harrison, Konteh, Greener, et al., 2010; Mannion, et al., 2005; Scott, Mannion, et al., 2003a; Scott, Mannion, Marshall, et al., 2003). It is expected that this will facilitate sense-making of the relationship as taking subjective approaches allow a richer and deeper understanding of complex constructs and interactions between them.

The difficulty in separating OC and OE

Within the health care sector there is evidence that OC impacts on health care performance yet articulating the nature of that relationship has proven difficult (Mannion, Davies, Harrison, Konteh, Greener, et al., 2010; Scott, Mannion, et al., 2003a; Scott, Mannion, Marshall, et al., 2003). A striking finding across these empiric health care studies has been the difficulty in defining and operationalising both OC and OE as conceptually and practically different variables (Mannion, Davies, Harrison, Konteh, Greener, et al., 2010; Scott, Mannion, et al., 2003a; Scott, Mannion, Marshall, et al., 2003).

Close to half of reported studies do not report a causal link between OC and performance. Within the health care context Davies and colleagues (2007) suggest that drawing conclusions from these studies has been difficult due to the challenges of research design:
Studying the culture and performance link in and across health care organisations poses substantial conceptual and methodological difficulties, not least in terms of conceptualising and operationalising both culture and performance (Davies, et al., 2007, p. 48).

Conclusions drawn from culture-effectiveness studies have been confusing. The studies have been fragmented with approaches that include: conceptualisation of OC and OE in different frames, a dominant positivist approach, and a lack of conceptual foundation (Kernick, 2004b; Wilderom, et al., 2000). The lack of conceptual frameworks is reported to be a significant contributor to the fragmented nature of the OC-OE literature and the lack of any definitive relationship between the constructs (Ashkanasy, et al., 2000; Martin, 1992, 2002; Wilderom, et al., 2000). Although there has been discussion about the importance of, and difficulty in conceptualising OC and OE, there has been little written about conceptualisation of the nature of the OC-OE relationship per se.

**The ‘black-box’ metaphor for describing the OC-OE relationship**

Within the organisational science literature Wilderom et al. (2000) pragmatically list three significant challenges which are inter-related when studying this area: First, how best to assess OC; second, how best to assess OE; and finally, how best to approach studying the relationship between them. These challenges are echoed within the health services research literature (Davies, 2002; Davies, et al., 2007; Scott, Mannion, et al., 2003a).

Taking the stance that culture influences behaviour and therefore organisational action and function (Cameron & Quinn, 1999; Kotter & Heskett, 1992; Schein, 1985, 1990, 2004), most studies have attempted to uncover a simple, unidirectional, positive, causal link which begins with OC. In general, OC has been conceptualised through the use of empiric typologies. The contra is to take a interpretive approach and to explore the nature of the relationship between OC and OE as socially constructed. Being a relationship between two socially constructed phenomena, it is likely to be complex and dynamic with the potential for reverse causality or recursiveness with OE having an influence on OC (Mannion, Davies, Harrison, Konteh, Greener, et al., 2010; Mannion, et al., 2005).

The black-box metaphor to approaching the nature of the relationship between OC and OE in much of the existing literature fits well with the challenges previously outlined (see Figure 4). Beyond positive relationships or associations, the nature of this
relationship has not been well described and has been designated as a question mark in Figure 4. The arrows represent the current understanding of influence of OC over OE in a one-way, direct causal fashion. In order to understand the potential dynamic nature of the relationship, it is necessary to consider how each of the components of Figure 4 is conceptualised, (OC/OE/relationship).

![Figure 4: The ‘black box’ relationship](image)

**Theoretical framework – components and the whole**

There is a scarcity of publications which outline theoretical frameworks as part of the research design in OC-OE studies and those studies that do purport a framework seem to address some components but not all in their conceptualisations. For example, Detert, Schroeder and Mauriel (2000) report a framework for linking OC and improvement initiatives in organisations. Their framework focuses on the conceptualisation of OC and how OC may support or inhibit systemic change implementation of a TQM initiative. In this way their work addresses the left hand component (OC) of Figure 4. Conceptualisation of OE and the relationship between OC and OE was not undertaken.

Another study outlines a theoretical framework for the study of values, attitudes and organisational outcomes, within the context of health care organisations in the USA (B. T. Gregory, Harris, Armenakis, & Shook, 2009). Their goal was to address the direct and indirect impact of OC on OE. The rationale was that research has previously focussed on the direct effects of OC (Denison & Mishra, 1995) and that there has been a lack of research exploring indirect mediators. Adopting the Competing Vales Framework (CVF), Gregory, Harris, Armenakis and Shook (2009) found that both group culture and balanced culture predicted patient satisfaction. Neither type of culture had a direct impact on controllable expenses. They note that in general, correlates of any type of effectiveness are difficult to find (March & Sutton, 1997; Siehl & Martin, 1990). No attempt was made in the study to conceptualise the OE construct, with effectiveness
measures selected based on their critical importance to the hospital industry in the USA. The authors suggest that although their study contributes to the current void, there is a need for further research to identify other mediating variables in the culture-effectiveness relationship. This thesis is positioned to address that gap.

Olavarrieta and Friedman (1999) bring together two sets of literature (marketing strategy and strategic management) in a conceptual framework linking market oriented cultures to superior firm performance. A market oriented culture is defined as one that implements the marketing concept philosophy whilst a definition of superior firm performance is not provided. OE is not conceptualised.

All three studies which posit a theoretical framework appear to conceptualise some, but not all of the constructs. No attempt has been made to think about conceptualising OC, OE and the nature of the relationship within the same theoretical frame in order to provide a deeper and richer understanding of the relationship between OC and OE.

**Component #1 – Conceptualisation of OC**

There are significant challenges when conceptualising and operationalising OC. There is also a lack of consensus about what OC ‘is’ and what it ‘is not’ (Martin, 1992, 2002). The main tenets of the OC literature bought forward from Chapter 3 include:

- OC as a collection of fundamental values and belief systems which gives meanings to organisations and are shared to varying degrees (Hatch, 1993; Meek, 1988; Pettigrew, 1979; Sackmann, 1991; Schein, 1985, 2004) often in a symbolic way (Smircich, 1983).

- OC as complex, dynamic, paradoxical and socially constructed (Alvesson, 2002; Martin, 2002; Schein, 2004).

- Organisations being knowledge-based, socially sustained cognitive enterprises where thought and action are linked (Bandura, 2005; Huff, 2005; Smircich, 1983).

- OC as a range of all-encompassing manifestations which collectively describe the ‘organisation as it is’.

- OC manifests at various levels, from visible artefacts to beliefs/values and deeper underlying ‘taken for granted assumptions’ (Alvesson, 2002; Martin, 2002; Schein, 1985, 2004).
• OC may manifest through subcultures and may be described differently, dependent on who one asks (K. L. Gregory, 1983; Sackmann, 1992). Cultures have been described as integrated, differentiated or fragmented and each can exist within a single organisation (Martin, 1992; Martin & Siehl, 1983; Meyerson, 1991; Meyerson & Martin, 1987).

**OC is conceptualised as metaphorical and socially constructed**

In Chapter 3 OC was conceptualised as complex and dynamic, a metaphor for the organisation. Culture ‘is’ the organisation; the organisation ‘is’ the culture. By adopting the stance of OC as socially constructed, as a metaphor for the organisation OC provides a lens through which the pharmacies can be studied. In this way OC is viewed as complex and dynamic, as knowledge and cognition which is shared to varying degrees. By adopting the metaphorical stance there is congruence with OC being a high level mental abstraction that is socially constructed in the minds of staff as they interact with others in their workplace.

**OC is operationalised as ‘the ways we think and act’**

In Chapter 3 organisations were described as socially sustained cognitive enterprises. The conceptualisation of OC was based on predominantly cognitive but also symbolic organisational theory. This thesis is founded more on organisational cognition theory than symbolic interactionist theory. Cognitive and symbolic metaphorical approaches can be reduced to simpler conceptualisations so participants can understand them. Cultural manifestations can be derived from conceptualising OC as ‘the way(s) we think and act’:

- The ‘think’ aspect relates to cognitive processes, mind sets, values, beliefs, assumptions and attitudes.
- The ‘act’ aspect relates to behavioural norms, normative practices, symbolic actions and routines, procedures and processes.

Taking this approach, organisational members are seen as thinking as well as behaving. That is, thought is linked to action in organisations that are defined as socially sustained cognitive enterprises. This is underpinned by the way experience becomes meaning, with meaning underlying activity. Action is not always symbolic in nature and there is a cultural literature which suggests an influence of thought over behaviour.
Component #2 – Conceptualisation of OE

As with OC, there is considerable breadth with regard the OE literature and an apparent lack of consensus and convergence with regards what OE is and what it isn’t (Molnar & Rogers, 1976). There is a significant untidiness of the literature (Molnar & Rogers, 1976) which is ongoing. The assumptions for conceptualising OE, as the right hand box of the emerging theoretical framework are outlined (Figure 4).

Assumptions for conceptualisation of organisational effectiveness

Key considerations include:

- High level abstraction or operational construct?
- Effectiveness in the eyes of whom?
- What dimensions could and/or should be included?

Addressing these issues presents significant challenges. This is due to the multiple models and definitions and the general lack of consensus about what OE is and what it isn’t (Cameron, 2005).

Organisations are deemed to be socially sustained cognitive enterprises with social meaning (Smircich, 1983). Organisations are stakeholder based being influenced by internal and external constituents with vested political agendas, along with different values and beliefs toward OE (Donaldson & Preston, 1995; Preston & Sapienza, 1990). In line with the emerging theoretical frame the OE construct provides a platform for theory generation, rather than the development of a list of criteria to be measured against.
Adopting a multi-constituent approach to conceptualisation and operationalisation of OE

As outlined in Chapter 4, OE is conceptualised as a high level mental abstraction that is multidimensional, value-laden, context bound, politically charged. By virtue of these facets, OE must inherently be multi-constituent. OE is conceptualised as socially constructed and this is divergent with the OE literature which Cameron (2005) suggests has been quantitative, narrow, unidirectional and uniformistic and ongoing within more contemporary literature. Previous conceptualisations of OE have taken an internal (goal oriented) or external (system-resource) focus and it is rational to adopt a multi-constituent focus which accommodates the facets of goal attainment and systems-resource models described in Chapter 4 (Figure 6).

Inductive development of the OE construct is centred on the multi-constituent nature of effectiveness. More importance is placed on representation from multiple stakeholders than on what effectiveness is deemed to be. The construct can be inductively developed from a relatively simple mapping statement (Chapter 7) as long as all key stakeholders are included in the process and able to have input. In this thesis effectiveness was operationalised through asking a collective to outline phrases that describe an effective community pharmacy.

![Socially constructed, cognitive and metaphorical culture construct](image)

![Socially constructed, multi-constituent effectiveness construct](image)

Figure 6: Conceptual framework – Effectiveness construct

Component #3 – Conceptualisation of the OC-OE relationship

There is considerable challenge in elucidating the nature of the OC-OE relationship within the health care context (Davies, 2002; Davies, et al., 2007; Davies, et al., 2000; Kernick, 2004a; Mannion & Davies, 2003; Mannion, et al., 2005; Scott, Mannion, et al., 2003a; Scott, Mannion, Marshall, et al., 2003). The manner in which OC and OE are conceptualised determines the approach taken to explore the nature of the relationship between them. Following this logic, if OC and OE are higher level mental abstractions
that are socially constructed, then the nature of the relationship between them must also be socially constructed.

The inherent complexity in the relationship has not been optimally explored by conceptualising OC and OE as variables (Scott, Mannion, et al., 2003a; Wilderom, et al., 2000). The challenge is ensuring that OC and OE are conceptualised within the same frame, and that the research design allows for the management of a high degree of complexity.

**Assumptions for framing the OC-OE relationship**

Methodological issues have impacted on the identification of a causal link between OC and OE within the organisational science and health services research literature (Davies, et al., 2007; Scott, Mannion, et al., 2003a; Scott, Mannion, Marshall, et al., 2003; Wilderom, et al., 2000). Based on this literature the following has been considered as part of the framing of this thesis:

- Most studies lack clear conceptualisation of the OC-OE constructs and the relationships between them (Wilderom, et al., 2000).
- Adoption of methods which do not allow the nature of the relationship to be explored despite its existence (Siehl & Martin, 1990). Cross-sectional empirical studies provide some indication of a relationship between OC and performance, however statements about the precise direction or nature of the relationship cannot be made (Scott, Mannion, et al., 2003a; Scott, Mannion, Marshall, et al., 2003; Wilderom, et al., 2000).
- Reliance on correlation techniques which are founded on the notion of causality and linearity and are not able to establish the direction of causality (Wilderom, et al., 2000).
- Direct and indirect influences of OC on OE have been identified, particularly regarding leadership (Ogbonna & Harris, 2000). Conceptual approaches must attempt to draw out the nature of these influences within the OC-OE relationship (Lim, 1995; Marcoulides & Heck, 1993; Saffold, 1988; Siehl & Martin, 1990; Trice & Beyer, 1993; Wilderom, et al., 2000).
- Wider approaches need to be applied to studying the relationships between OC and OE to ensure depth and breadth of new learnings (Braithwaite, Hyde, et al., 2010; Davies, et al., 2007; Davies, et al., 2000; Mannion, et al., 2005; Scott, Mannion, et al., 2003a; Scott, Mannion, Marshall, et al., 2003; Wilderom, et al., 2000).
More sophisticated theory is called for and is expected to embrace complexity and the potential multi-directional relationships (Denison, et al., 1995; Freeman & Peck, 2010; Kernick, 2004a, 2004b; Kotter & Heskett, 1992; Mannion, Davies, Harrison, Konteh, Greener, et al., 2010; Mannion, et al., 2005; Scott, Mannion, et al., 2003a; Scott, Mannion, Marshall, et al., 2003; Wilderom, et al., 2000).

Following the tenets of upper echelons theory, most studies involve CEOs or senior management as being representative of OC and of culture-bearers views (Davies, et al., 2007; Hambrick, 2005; Mannion, Davies, Harrison, Konteh, Greener, et al., 2010; Mannion, et al., 2005; Schein, 1985, 2004).

The theoretical framework provides a clear conceptualisation of the OC and OE constructs as well as the relationship between them (Figure 7). The nature of the relationship is able to be explored in-depth based on the socially constructed nature of OC and OE and the relationship between them. There is an awareness that members across all levels of the organisational are culture-bearers and so all are to be invited (Schein, 1985, 2004). The notion of a potential recursive influence of OE on OC is able to be explored through this framework and it accommodates the potential for dynamic relationships and influences. The framework and subsequent research design allows for the identification of patterns of influence and the formulation of theory to describe the relationship between OC and OE.

Figure 7: Conceptual framework – Culture-Effectiveness relationship
Revisiting the research issue

Having outlined a framework for moving forward with this study, it is necessary to revisit the research issue being explored through this frame. As outlined in Chapter 2, health policy-makers and professional pharmacy bodies are calling for community pharmacy to integrate within the wider primary care sector and to re-professionalise through role extension by undertaking enhanced clinical activities. More active engagement by community pharmacy is expected to contribute to population health gains. A national climate survey found that New Zealand pharmacists generally align with a policy-based TYV document (TYV) (J. Harrison, et al., 2011) which outlines a pathway toward re-professionalisation (Pharmaceutical Society of New Zealand, 2004). The survey highlighted that New Zealand pharmacists were receptive to continued involvement in traditional clinical roles but had a more tempered response to enhanced clinical roles. These new roles require different skills and a greater degree of collaboration (Scahill, Harrison, & Sheridan, 2010). Barriers to implementation of the TYV included a factor labelled ‘pharmacist humanistic’ which describes the way pharmacists perceive themselves to think and act within their current environment (Scahill, Harrison, & Sheridan, 2009). Other barriers included: integrated systems of care and teamwork; funder stakeholder relationships and remuneration; lack of appreciation of knowledge and skills; lack of research support; current expertise and continuing professional development; and lack of a unified pharmacy voice. Moving from individual pharmacist perceptions to what happens at the organisational level requires a shift from the study of organisational climate to the study of organisational culture (OC).

The management science and health services research literature report a potential link between OC, organisational functioning and effectiveness (Ashkanasy, et al., 2000; Davies, et al., 2007; Mannion & Davies, 2003; Mannion, et al., 2005; Scott, Mannion, et al., 2003a, 2003b; Scott, Mannion, Marshall, et al., 2003; Wilderom, et al., 2000). The pharmacy practice literature is sparse with respect to OC studies and the benefits of applying organisational theory to this field have largely gone unnoticed (Scahill, 2008a; Scahill, Harrison, et al., 2009b). Within the health services research literature there is a move away from the notion that the OC-OE relationship is linear, causal and unidirectional toward a view with greater complexity. This background provides the impetus for the research inquiry of this thesis:
Chapter 6: Theoretical Framework

What is the nature of the relationship between organisational culture (OC) and organisational effectiveness (OE) within six New Zealand community-based pharmacies?

In order to explore this relationship, OC and OE constructs were conceptualised in accordance with this chapter and operationalised as per the research design outlined in the following chapter.

Chapter summary

This chapter describes a theoretical framework which provides guidance for development of the research design. OC is conceptualised as metaphorical and organisations as socially sustained cognitive enterprises. OC is framed through manifestations of thought and action: ‘the way(s) we think and act’. OE is conceptualised as multidimensional, decidedly judgemental, value-laden and politically charged and so is deemed to be multi-constituent in nature. Both OC and OE are socially constructed and as such the nature of the relationship between them is framed as socially constructed.
Chapter 7: Research Design

Purpose of Chapter 7

The purpose of this chapter is to argue the ontology and epistemology and to outline the methodology and methods used.

Overview of the research design

The research design has been described as the science and art of planning procedures for conducting studies (Hussey & Hussey, 1997) and particularly when theory building (K. G. Smith & Hitt, 2005). This study involves three phases, which are underpinned by the Theoretical Framework (Chapter 6). Ontological assumptions are founded on social constructionism and the epistemological stance is interpretative. Concept mapping was used for construct development of OC and OE and the relationship explored through semi-structured interviews. Cognitive mapping of interview dialogue was used to identify patterns of influence in the relationship between OC and OE.

Dominant positivist approaches; justifying an interpretative stance

Positivist researchers have dominated the culture-performance literature, mostly adopting an integration view of OC (Schein, 1985, 2004). The popular press and much of the corporate culture literature have adopted linear, causal and unidirectional approaches to the relationship (Deal & Kennedy, 1982; Denison, 1990; Kotter & Heskett, 1992; Ouchi, 1981; Pascale & Athos, 1981; Peters & Waterman, 1982). Within the health sector, there has been movement away from this, looking for a deeper, richer understanding of what is potentially a complex and multi-directional relationship. A view of patterns of culture and contingent relationships has largely replaced the notion of linearity. Based on the contingent (Davies, et al., 2007; Mannion, Davies, Harrison, Konteh, Greener, et al., 2010; Scott, Mannion, et al., 2003a; Scott, Mannion, Marshall, et al., 2003) and potentially recursive nature (Mannion, Davies, Harrison, Konteh, Greener, et al., 2010; Mannion, et al., 2005) of the relationship between OC and organisational outcome a research design that accommodates complexity is required (Braithwaite, Hyde, et al., 2010; Freeman & Peck, 2010; Kernick, 2004b). The ontological and epistemological assumptions which guide this study are supportive of this.
There has been a call for the adoption of novel methodological approaches in order to overcome the significant challenges in conceptualising and operationalising OC and OE as distinct constructs (Davies, et al., 2007; Mannion, Davies, Harrison, Konteh, Greener, et al., 2010; Scott, Mannion, Marshall, et al., 2003). OC and OE have been separated as part of the theoretical framework of this study (Chapter 6). OC is conceptualised through an amalgam of work by Martin, Schein and Smircich (1992; 1985, 2004; 1983). Despite conceptualising OC in different ways, the work of these three authors each offer characteristics of OC which are relevant to this thesis and melded frameworks have previously been adopted in OC oriented studies (Braithwaite, 2006a, 2006b; Hatch & Schultz, 1997; Mohan, 1993).

OC is conceptualised as a root metaphor, following the cognitive flavour described by Smircich. OC is formulated in a manner which demonstrates uniqueness, with room for conflict in addition to shared beliefs (Smircich, 1983). Operationalisation (either measurement or description) of OC through concept mapping aligns with conceptualisation as a root metaphor to ensure a rich and thick understanding of the OC-OE relationship within this study context (Geertz, 1973). OC is considered to be a complex phenomenon that is socially constructed (Freeman & Peck, 2010). OE is also conceptualised as socially constructed, a higher level abstraction that is; value-laden, politically charged and multi-constituent in nature (J. P. Campbell, 1976a, 1976b, 1977; J. P. Campbell, Brownas, Peterson, & Dunnette, 1974; Connolly, et al., 1980; Michalski & Cousins, 2000). An interpretative approach is appropriate for exploring relationships between these constructs under a social constructionist frame.

Within organisational science, health services research and pharmacy practice literature there is a scarcity of studies which formulate OC, OE and the relationship between these within the same interpretative frame. A belief in socially constructed realities, complex interplays over linearity and the unlikelihood of direct causal influences drive the development of the research design of this thesis.

**A multi-level research design**

Research design must centre on the nature of the research question (Andrews, 2003), although Yin (1994) suggests that the extent of control an investigator has over actual behavioural events and the degree of focus on contemporary as opposed to historical events are also considerations. Crotty (1998) broadens the requirement to include:
Chapter 7: Research Design

theoretical perspective, philosophical stance, epistemology, theory of knowledge, methodology, plan of action and techniques for data collection and analysis.

There are two juxtaposed positions of research design, on a spectrum from solidly positivist at one end to purely interpretative at the other (Creswell, 2003; Denzin & Lincoln, 2005; Hussey & Hussey, 1997; Liamputtong & Ezzy, 2005; Lincoln & Guba, 1985; Martin, 2002). The terms positivist/objectivist/functionalist on the one hand and interpretative/subjectivist/naturalistic on the other, are used interchangeably in the literature to describe each end of the research spectrum. The terms ‘quantitative’ and ‘qualitative’ are also used however, it is important to note that quantitative and qualitative techniques can justifiably be applied to both ends of the spectrum of research design (Creswell, 2003).

Ontological and epistemological assumptions are what dictate the choice of operational methodology and method. Further, these underpinning assumptions must align with the research question and the position of the researcher based on their world view (Crotty, 1998; Hussey & Hussey, 1997; Liamputtong & Ezzy, 2005; Lincoln & Guba, 1985; Martin, 2002). Development of the research design for this thesis is framed in terms of levels of philosophical thought and operational method (Figure 8).

Source: Adapted from: (Crotty, 1998; Hussey & Hussey, 1997; Liamputtong & Ezzy, 2005; Lincoln & Guba, 1985)

**Figure 8: Levels of research design**

- **Ontological assumptions**: The study of ‘being or reality’: the fundamental nature of things
  - **Positivist**: world as objective, uninfluenced by who is looking
  - **Interpretivist**: world is fluid and always changing and fundamentally shaped by the person who is observing

- **Epistemological stance**: The study of how people know about ‘being or reality’
  - **Positivist**: knowledge through objectively gathering facts
  - **Interpretivist**: role of subjective understanding in shaping our knowledge

- **Paradigm of inquiry**: A theoretical framework: A world view, a general perspective, a way of framing and breaking down complexity of the real world

- **Methodology**: The way the plan of action is to be approached: construct development and exploration of relationship between them – development of a theory

- **Methods**: The tools by which data are collected and analysed
Level 1 – Ontological assumption

Ontology is the study of ‘being or reality’ describing the fundamental ‘nature of things’ (Lincoln & Guba, 1985). As part of the research process it is necessary to consider whether the world is objective and external to the researcher, or whether the world is socially constructed and best understood through examining human perception (Hussey & Hussey, 1997). Pure positivists adopt the view that the world is completely objective and the world remains uninfluenced by ‘who is looking’. Conversely, pure interpretivists see the world as fluid, and fundamentally shaped by the person who is observing and perceiving (Crotty, 1998; Liamputtong & Ezzy, 2005; Lincoln & Guba, 1985). The positivist and interpretivist views are at two extremes of the research spectrum and Hussey and Hussey (1997) remind us that “very few people would operate in their pure forms” (Hussey & Hussey, 1997, p. 50).

Ontological assumption ranges from reality as a concrete structure where the social world is the same as the physical world, through to reality as a projection of human imagination. At the far right of the spectrum, there is no social world apart from that which is inside the individual’s mind (Figure 9) (Hussey & Hussey, 1997; Morgan & Smircich, 1980). The ontological assumption of a single tangible ‘reality’ (Lincoln & Guba, 1985) viewed exactly the same by all, a reality that is concrete in structure, where the social world is like the physical world, does not sit well with this thesis (Hussey & Hussey, 1997; Morgan & Smircich, 1980).

![Figure 9: Ontological assumptions](image-url)

Source: Adapted from: (Hussey & Hussey, 1997; Morgan & Smircich, 1980)
Reality is considered to be a social construction (Berger & Luckmann, 1967; Crotty, 1998) and this study is posited toward the interpretative end of the continuum outlined in Figure 9. The following view is adopted:

...all knowledge, and therefore all meaningful reality as such, is contingent upon human practices, being constructed in and out of interaction between human beings and their world, and developed and transmitted within an essentially social context. (Crotty, 1998, p. 42)

This stance does not align with the existence of a single tangible reality, lying within a purely objective world, described as ‘same’ by all. The world is deemed to be bounded by both time and context, with reality being constructed around participants’ own definitions (Hussey & Hussey, 1997; Lincoln & Guba, 1985; Morgan & Smircich, 1980). Adopting the ontological position of social constructionism (Berger & Luckmann, 1967; Crotty, 1998) suggests the need for an interpretative frame for the development of the OC and OE constructs along with exploring the nature of the relationship between them. The theoretical framework (Chapter 6) sets out OC and OE as socially constructed, time dependent, value-laden, contextually bound, decidedly judgemental and therefore multi-constituent in nature (Allaire & Firsitrotu, 1984; Alvesson, 2002; Cameron, 1985, 1986; Cameron & Whetten, 1983; J. P. Campbell, 1976a, 1976b, 1977; Connolly, et al., 1980; Martin, 1992, 2002; Michalski & Cousins, 2000). The assumption is made that if OC and OE are socially constructed then the nature of the relationship between them is also socially constructed; which fits with the ontological position of this thesis.

**Level 2 – Epistemological assumptions**

Epistemology is the study of how people know about ‘being’ or ‘reality’ (Liamputtong & Ezzy, 2005). The epistemological stance must flow logically from the ontological assumptions of the researcher, to ensure alignment and robust methodological rigour (Liamputtong & Ezzy, 2005; Lincoln & Guba, 1985). The positivist gains knowledge through objectively gathering facts whilst the interpretivist considers the role of subjective understanding in the shaping of knowledge (Denzin & Lincoln, 2005; Liamputtong & Ezzy, 2005). In order to understand study participants’ socially constructed realities, there is a need to engage in the research process as ‘human instrument’. The interpretative approach allows for this, through immersion in data
collection, analysis and interpretation to gain deep and rich description of the nature of the relationship between OC and OE (Lincoln & Guba, 1985).

An ontological approach underpinned by social constructionism and an epistemological stance that is interpretative provides the freedom to explore the research question of this thesis without the pressure of needing to remain entirely ‘value-free’ (Alvesson, 2002; Geertz, 1973). Both emic (researcher internal/native) and/or etic (researcher external) approaches are used at different stages throughout this study, but within an interpretative frame (Burchell & Kolb, 2003; Martin, 1992, 2002; Martin, et al., 1985; Michalski & Cousins, 2000; Trochim & Kane, 2005).

In addition to congruent ontological and epistemological assumptions, Lincoln calls for consideration of three other axioms of interpretative research: generalisation, causal linkage and the role of values in inquiry (Lincoln & Guba, 1985). These need to be considered in terms of the position of this thesis.

**The concept of ‘generalisability’**

The degree of generalisability of findings is considered to be of lesser interest within the interpretative frame, where the aim is to develop an idiographic body of knowledge about a particular context (Lincoln & Guba, 1985; Martin, 1992, 2002). The nature of the relationship between OC and OE is conceptualised as socially constructed and by definition cannot be completely context or value-free. Interpretative research is wholly time-bound and context specific and a level of generalisability is only possible through transferability of findings between ‘like’ contexts as determined by those immersed within such contexts (Lincoln & Guba, 1985).

**Direct linkages, causality and the notion of linearity**

The issue of causality has always fascinated the human race (Lincoln & Guba, 1985) and is central to understanding this thesis. The popular press and corporate culture literature has developed through direct linear causality and the notion of cultural strength (Deal & Kennedy, 1982; Kotter & Heskett, 1992; Peters & Waterman, 1982; Schein, 1985) which has been challenged for its simplicity in dealing with complex phenomena and relationships (Alvesson, 2002; Freeman & Peck, 2010; Martin, 1992, 2002).
Within healthcare, identification of contingent and potentially recursive relationships between OC and performance has supported the contemporary movement away from linearity with a mandate for a richer and deeper look at the dynamics of the OC-OE relationship (Davies, et al., 2007; Mannion, Davies, Harrison, Konteh, Greener, et al., 2010; Mannion, et al., 2005; Scott, Mannion, et al., 2003a; Scott, Mannion, Marshall, et al., 2003). This is supported by studies outside of healthcare (Ashkanasy, et al., 2000; Schein, 1996; Wilderom, et al., 2000).

The interpretive frame questions linearity and direct causality as viable concepts. Lincoln and Guba (1985) take an extreme view of the concept of causality:

...moving to transform the theory of causality into an attributional theory whereby mutual shaping replaces absolute cause and effect. (Lincoln & Guba, 1985, p. 145)

The stance taken in this thesis is more tempered and rather than excluding causality theory outright, an attempt is made to understand the complexity within relationships whether they be causal or not. The notion is adopted that, in some way, individual constructs may influence each other and this thesis sets out to understand what the influences are.

**Naturalistic enquiry is not value-free**

Interpretive epistemology is underpinned by the recognition that research is not value-free.

If there is only one objective (real? true?) perspective, then, by definition no others are worth considering. But when values are recognised as being involved, it is imperative that their meaning and implication be sorted out. (Lincoln & Guba, 1985, p. 173)

Under the interpretative frame, researchers bring their own values to the work when framing studies, collecting, analysing and interpreting data (Creswell, 2003; Crotty, 1998; Liamputtong & Ezzy, 2005). Further, organisational life is socially constructed, and so it must hold true that perspectives on organisational constructs and their interrelationships are value-laden. The theoretical framework (Chapter 6) is founded on the notion that both OC and OE are both socially constructed and value-laden with an
interpretative approach which supports the idea that an enquiry of this nature is not value-free.

**Level 3 – Theoretical framework as research paradigm**

*Paradigm* is loosely referred to in the academic literature and means different things to different authors (Crotty, 1998; Hussey & Hussey, 1997; Lincoln & Guba, 1985). There is some consensus that paradigm constitutes a world view, a general perspective on an issue, a way of breaking down the complexity of the real world (Hussey & Hussey, 1997). Consistent with ontological and epistemological assumptions, paradigm is a framework of beliefs, values and theoretical underpinning of concepts under study (Creswell, 2003). Hussey and Hussey (1997) suggest that paradigms provide a framework comprising an accepted set of theories, methods and ways of defining both concepts and data.

The paradigm of this study is the theoretical framework as described in Chapter 6. The research paradigm outlines the conception of OC, OE and outlines how the relationship between them is viewed. OC is framed as socially constructed, a metaphor through which organisational life can be viewed. OE is also framed as socially constructed, value-laden and multi-constituent. Conceptual alignment between OC and OE is ensured through exploring the nature of the relationship between them as socially constructed.

The theoretical framework is central to the research design as it provides linkage between the ontological assumptions and epistemological stance alongside the operational methods for data collection, analysis and interpretation. The paradigm of enquiry provides the foundation for development of the focus statements for the OC and OE concept mapping exercises that are used to inductively generate these constructs.

**Level 4 – Methodology and methods**

Level 4 of the research design is wholly operational and outlines the plan of action, the tools used for data generation, collection, analysis, and the interpretative approach to theory building. Exploring the research question was reliant on three separate parts as shown in Figure 10:

- Part 1 – Development of the OE construct.
- Part 2 – Development of the OC construct.
• Part 3 – Exploration of the nature of the relationship between the OC and OE constructs.

Figure 10: Design for data collection and analysis

Selection and description of organisations and individuals

The OE mapping exercise

Purposive sampling techniques were used for structured identification and then selection of participants for the OE construct development (Roeg, Van de Goor, & Garretsen, 2005). The context of this study is the New Zealand primary healthcare sector which is undergoing significant reform. Reform centres on access to care and provision of quality care through integration of service provision and multi-disciplinary teamwork. As such, health policy-makers, health funders and planners and GPs were part of the multi-constituent group invited to participate. The GPs held seats on governance groups or were in advisory positions in addition to participating in routine clinical work.

Significant commitment was required from participants, who were asked to attend a 2 hour concept mapping meeting. Thereafter they were expected to spend a further two hours sorting and rating statements generated in the focus group exercise through use of
web-based Concept Systems™ software (Copyright 2004 – 2008, all rights reserved – Concept Systems Inc, Ithaca, USA). Between 10 and 15 people from diverse backgrounds were required to participate in the face-to-face OE concept mapping exercise. Based on the likelihood of attrition in recruitment, individuals representing the following constituencies were identified as potential participants: Pharmacy owners or managers from case sites (n=8), DHB pharmacy program managers (n=5), Primary Health Organisation managers (PHO) (n=4), GPs (n=4), The New Zealand MOH (n=2), The Pharmaceutical Society of New Zealand (PSNZ) (n=2), The Pharmacy Guild (n=2), The Pharmaceutical Management Agency (PHARMAC) (n=2), The Clinical Advisory Pharmacists’ Association (CAPA) (n=1), a strategic community pharmacy collective (n=1), and The Maori Pharmacists’ Association (MPA) (n=1).

From the pool of individuals identified, 16 people were invited to participate in the OE concept mapping process. Representation was gained for the following organisations and professional groups: pharmacists from case sites (n=4), national pharmacy bodies (n=3), one individual from each of three DHBs representing the greater Auckland catchment (n=3), PHO managers (n=2), GPs (n=2), MOH (n=1), and PHARMAC (n=1). All of these participants accepted the invitation to attend and were forwarded a formal letter of invitation, the participant information sheet and a consent form. A meeting reminder letter was forwarded to optimise attendance.

Two participants did not attend the OE concept mapping exercise. One was a representative of the PSNZ, the other a manager of a PHO. Neither provided statements of effectiveness before the meeting, to be incorporated into the meeting discussion. The implications of this are outlined in the limitations section of the discussion. Of the 14 who were involved, nine were male and 11 were of New Zealand European descent. There was an even distribution of age across groupings from 21-30 through to greater than 61 years of age. Nine of the participants were pharmacists representing various roles. The stakeholder group included representation by: pharmacists from case sites (n=4), DHBs (n=3), national pharmacy bodies (n=2), GPs (n=2), MOH (n=1), PHARMAC (n=1), and PHO (n=1).

Selection of participating community pharmacies

Case study is an appropriate choice for this interpretive study which involves enquiry that investigates contemporary phenomena within real-life context (Yin, 1994). Case study is
used as an exploratory research tool in areas where there are few theories or a deficient body of knowledge (Eisenhardt, 1989; Yin, 1994). The technique is highly iterative and Eisenhardt suggests that the process is tightly linked to the data collected and especially appropriate to new topic areas such as this (Eisenhardt, 1989). Eisenhardt (1989) reports that case studies can be used to accomplish various aims, that is: provide description, test or build theory. This case study aims to provide description for building a grand theory of the nature of the relationship between OC and OE (Frese, 2005). In general, case studies are the preferred strategy when ‘how’ or ‘why’ questions are being posed and where there is a desire to understand complex social phenomena (Yin, 1994).

A theoretical purposive sampling strategy was used to identify community pharmacies as potential case sites for this study (Liamputtong & Ezzy, 2005). Community-based pharmacies that were showing a commitment to the New Zealand Primary Health Care Strategy and the DHBNZ National Framework for Pharmacists were selected (District Health Boards New Zealand, 2006; Ministry of Health, 2001b). A commitment to this strategy was demonstrated by providing value added services (i.e., medicines use review, drug adherence support, minor ailments advice) and by having a multi-disciplinary approach to teamwork. Proprietors of these pharmacies were involved at an advisory or governance level within health funding and planning organisations. For reasons of convenience in conducting the research all the pharmacies were selected from the greater Auckland region. Three DHBs control the funding and planning activities of the greater Auckland area. Community pharmacies were selected based on the above criteria from each of the three DHBs. In addition, pharmacies were identified to include a range of sizes, and representative of those situated in high and low social demographic communities, and urban and rural communities.

The aim was to involve between six and eight pharmacies in this study (dependent on staff numbers within these pharmacies). Based on the significant commitment required to participate there was the likelihood of a high decline rate in the first instance and the potential for case site drop-out thereafter. As such, 16 pharmacies were identified which fulfilled the aforementioned criteria. They were located within the Auckland (n=6), Counties-Manukau (n=5) and Waitemata (n=5) DHB catchment areas. The owners of the pharmacies were initially approached through a telephone call and the study was explained to them. A letter was then forwarded outlining the required involvement in the OC concept mapping exercise and contained the ethics committee approved participant
information sheet and consent form. No one pharmacy was deemed to be more important for the study than any other from this pool of 16. However, a recruitment strategy was followed such that pharmacies were invited in a sequential order to ensure sites were spread across the three DHBs and were inclusive of the demographic mix outlined previously. The case sites needed to be recruited in order to select participants for the OC construct development exercise. Eight case sites were formally recruited to the study. However, two case sites were excluded because their representatives didn’t attend the OC and OE concept mapping exercises. The resultant six case sites with 47 participants were deemed to be adequate to continue the study.

**Case site 1**

A suburban pharmacy located nearby, but not physically within a medical centre. The pharmacy has a working owner plus two staff pharmacists, one technician, one pharmacy student and a pharmacist intern. The retail aspect is overseen by a retail manager and there is a part-time administration officer and a senior shop assistant. The pharmacy is located within a middle income socio-demographic area with a mixed racial population. A mix of both dispensary and retail aspects sustain the business.

**Case site 2**

This was a small suburban pharmacy which is independently owned with a working proprietor and another staff pharmacist. With the pharmacy being in a medically high need and low socio-economic area, the main focus of the business is on the dispensary and serving the health needs of their population.

**Case site 3**

This was a larger suburban pharmacy located physically adjacent to a medical centre. The owner works part of the week and there is a pharmacy manager, a full time staff pharmacist, two part-time staff pharmacists, an intern, a pharmacy technician and two retail pharmacy assistants. Although this pharmacy does undertake retail sales, the focus is on ‘health oriented’ products. This pharmacy services a large population from the Indian subcontinent in what is considered to be a low to middle income community.

**Case site 4**

This pharmacy is a suburban pharmacy however it also supplies medication and clinical advice to residential care facilities for older adults. This pharmacy is the largest of the
case sites recruited, with 12 staff including pharmacists, technicians, assistants, an intern and nurse. The community has a high Asian population and is considered to be in the mid to upper socio-demographic range.

**Case site 5**

A suburban pharmacy which is not adjacent to a doctor’s surgery but has a high needs population hence considerable health advice and non-prescription medicine counselling takes place. This pharmacy has a staff of six including a working owner, three staff pharmacists and two pharmacy shop assistants.

**Case site 6**

This is a rural based pharmacy which is not physically located in or nearby a medical centre but has close relationships with the medical practice as with case site 1. This pharmacy has nine staff and undertakes a mix of dispensary work, non-prescription medication advice and retail sales. Staff include two working owners who are pharmacists, one staff pharmacist, two pharmacy technicians, one alternative therapist who is also a qualified pharmacy technician, four pharmacy shop assistants. This pharmacy serves a population with relatively high health needs who are of low socio-economic status but also a more affluent farming population.

**Participant level selection**

*Invitees to the OC concept mapping exercise*

Between 8 and 15 participants is the ideal number for face-to-face concept mapping meetings (Trochim, 1989b; Trochim & Kane, 2005). Representatives from across all work levels within the pharmacy case sites were invited to a face-to-face OC concept mapping meeting: pharmacy owners \(n=7\), pharmacy assistants/retail staff \(n=2\), intern pharmacists \(n=2\), pharmacist managers \(n=1\), staff pharmacists \(n=1\), pharmacy technicians \(n=1\). In line with the expectations of the Treaty of Waitangi, a community pharmacist manager representing the Maori Pharmacists Association (MPA) was also invited.
Demographics of attendees at the OC concept mapping exercise

Ten individuals attended the face-to-face OC concept mapping exercise. The demographics of the sample are outlined in Table 8. At least one member attended from each of the six pharmacies.

Table 8: Participant demographics OC concept mapping

<table>
<thead>
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<th>Demographic</th>
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<tbody>
<tr>
<td>Age (yr)</td>
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<td>21 to 30</td>
<td>2</td>
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<tr>
<td>31 to 40</td>
<td>2</td>
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<tr>
<td>41 to 50</td>
<td>4</td>
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<tr>
<td>51 to 60</td>
<td>1</td>
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<tr>
<td>61 or greater</td>
<td>1</td>
</tr>
<tr>
<td>Gender</td>
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<tr>
<td>Female</td>
<td>6</td>
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<tr>
<td>Male</td>
<td>4</td>
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<tr>
<td>Staff group</td>
<td></td>
</tr>
<tr>
<td>Working owner</td>
<td>6</td>
</tr>
<tr>
<td>Pharmacist manager</td>
<td>1</td>
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<tr>
<td>Pharmacy intern</td>
<td>2</td>
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<tr>
<td>Pharmacy technician</td>
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<tr>
<td>Ethnicity</td>
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<td>New Zealand European</td>
<td>7</td>
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<tr>
<td>Maori</td>
<td>1</td>
</tr>
<tr>
<td>Other</td>
<td>2</td>
</tr>
</tbody>
</table>

Source: (Scahill, Harrison, & Carswell, 2010a)

Operationalising the OC and OE constructs

The OC and OE constructs were utilised within the interview setting as anchor points for discussion about the influence of each on the other. Dimensional based analyses were also undertaken and concept mapping was utilised in three distinct aspects of this study:

- Development of the OE construct including a summary profile of what constitutes an effective community pharmacy.
- Development of the OC construct.
- Development of an OC rating scale in order to undertake pattern matching to identify cultural gaps through typical and beneficial dimensions of OC (Appendix 4).
Application of Trochim’s Concept Mapping™ techniques

Development of the OE and OC constructs and a culture rating tool for pattern matching was achieved by utilising concept mapping techniques developed by Trochim (Trochim, 1989a, 1989b, 1989c; Trochim & Kane, 2005; Trochim & Linton, 1986). This technique has been used to assist in structured conceptualisation of key issues across the health sector (Trochim & Kane, 2005). OC is socially constructed, metaphorical and shared to some degree and so input from multiple persons within participating pharmacies is required to develop an OC construct. OE is also socially constructed, value-laden and multi-constituent and requires input from multiple interested stakeholders for its development. Concept mapping lends itself to the development of both OC and OE constructs.

The term ‘concept mapping’ refers to any methodology that is used to produce a picture or map of ideas or concepts of an individual or group. There are many examples including: ‘mind maps’, ‘causal maps’ or ‘cognitive maps’ (Eden, 1988, 1992; Eden, Ackermann, & Cropper, 1992; Trochim & Kane, 2005). These techniques are distinct from the concept mapping used in this study as they are mostly used by single persons to make sense of problems or as a way to organise and represent patterns of thought. Cognitive mapping was used for this purpose to help analyse the interview phase of this study post the concept mapping exercises. The participant’s language and voice comes through in the cognitive maps as the data for interpretation.

Trochim’s concept mapping is a predominantly interpretative, participatory group mapping methodology. The approach integrates well-known group processes such as brainstorming and unstructured sorting with multivariate statistical methods of multidimensional scaling and hierarchical cluster analysis (Trochim, 1989a, 1989b, 1989c; Trochim & Kane, 2005; Trochim & Linton, 1986). The method provides a compromise between positivist approaches and in-depth ethnography (Burchell & Kolb, 2003). Concept mapping has more recently been used in conceptualising issues within health care and is underpinned by the following characteristics (Trochim & Kane, 2005):

- Purposefully designed to integrate input from multiple sources with differing content expertise or interest
- Allows the identification of dimensions of organisational constructs
- Uses sophisticated and rigorous multivariate data analyses to construct maps
• Creates a range of maps that visually depict the composite thinking of the group

• Maps constitute a framework or structure that can immediately be used to guide action planning, programme development or evaluation and measurement

Concept mapping was used in this thesis to assist the theory building process through development of the OC and OE constructs. Trochim highlights the importance of distinguishing between concepts and theories:

…while theories are built upon concepts, concepts are not, in and of themselves theories. The concept maps shown in this paper do not necessarily constitute theories. A theory postulates a relationship – usually causal – between two or more concepts. A concept map provides a framework within which a theory might be stated. (Trochim, 1989a, pp. 109–110)

Concept mapping has been successfully used within six doctoral theses in New Zealand, two at Auckland University, for organisational studies (Burchell, 2003; Shepherd, 1999). At least twenty five other ‘non-culture’ PhD studies have been undertaken in Canada and the USA using this technique. Concept mapping has been successfully applied to the development of performance indicators within healthcare (Gibberd, 2005; Nabit, Van den Brink, & Jansen, 2005; Roeg, et al., 2005; Trochim & Kane, 2005) and a training evaluation study (Michalski & Cousins, 2000). Trochim’s concept mapping and pattern matching techniques (Appendix 4) have not been adopted to study the relationship between OC and OE within any healthcare context and have not been applied to community pharmacy research prior to this study (Scahill, Carswell, et al., 2010; Scahill, Harrison, & Carswell, 2010a, 2010b).

Generic steps of Trochim’s concept mapping

Trochim’s concept mapping technique is divided into discrete steps (Figure 11) (Trochim, 1989b; Trochim & Kane, 2005):

• Preparation.
• Development of focus statements and generation of statement list by group.
• Sorting by participants into thematic clusters and rating on predetermined criteria.
• Data analysis.
• Data interpretation and profile building of the constructs.
• Use of constructs in the field.
Aspects of preparation involved: sampling, selection and engagement, outlining the process and providing the meeting aims and context of the study. The sampling criteria for pharmacy case sites and participants invited to the OC and OE concept mapping exercises have been outlined. A multi-constituency concept mapping approach (Michalski & Cousins, 2000) allowed the development of a description of what constitutes an ‘effective community pharmacy’ from the viewpoint of multiple stakeholders as part of the OE concept mapping exercise. Fifteen pharmacy staff were invited to the OC mapping exercise in order to ensure that at least one staff member from each of the case sites was able to attend. A mix of staff, from all levels of work within the pharmacies, was also invited to the concept mapping exercises based on Martin’s notion of subculture (Martin, 1992; Meyerson & Martin, 1987).

The aim and background of the two concept mapping meeting(s) were outlined to the participant groups by the facilitator (the author). Based on the multi-constituent nature of
the OE concept mapping group, it was necessary to place boundaries around the project so that all the stakeholder groups that were represented were equally informed. The preamble involved setting the scene and providing background to the policy-driven environment that community pharmacy is currently facing.

Statement generation

A 2 hour brainstorm session for each of the OC and OE concept mapping exercises was moderated by the author who was familiar with this technique and had completed a training programme prior to project initiation. The training involved project set-up, meeting facilitation and use of the Concept Systems\textsuperscript{TM} software.

Based on the theoretical framework (Chapter 6) the following focus statement was used to stimulate discussion within the OE concept mapping session:

*Please generate statements (short phrases or sentences of less than 15 words) that in your opinion describe an effective community pharmacy.*

The statement will make sense if preceded by:

*An effective community pharmacy is one that…*

The instructions for statement generation used to stimulate discussion in the OC concept mapping session were:

*Please generate statements (short phrases or sentences of less than 15 words) that describe the way(s) we think and act in our community pharmacy.*

The statement will make sense if preceded by:

*The way(s) we think and act in our community pharmacy can be described as…*

Participants in the two sessions were then free to articulate whatever they deemed to be relevant to the focus statement. Participants were able to share their implicit knowledge on the subject in the setting of a structured group process. To achieve this, discussion was moderated in a structured manner. In both of the concept mapping exercises, participants were given 15 minutes to write down statements which provided a starting point and stimulation of further discussion. Each participant in turn contributed a statement to begin the process and the discussion flowed from this, until all ideas had
been captured. Thereafter, individuals were free to continue adding thoughts as they came to mind, within the general group discussion. The statements generated were added to a whiteboard and participants were able to disagree with the individual statements generated by the group. However, disagreement was not a precedent to excluding individual statements in the listing. No criticism was allowed regarding whether individual statements were right or wrong (Roeg, et al., 2005; Trochim & Kane, 2005). However, it was a requirement that all group members understood each statement before it was added to the list. Statements were not able to be added to the list if they were an exact duplication of previously added statements. The author ensured that all individuals were given equal opportunity to speak, so as not to have a dominant cohort. Statements were generated within the allotted time frame of two hours for both meetings.

**Statement structuring, statement validation**

Following the face-to-face exercises, the statements were taken from the printable whiteboard and edited in a uniform manner so that the statements could be systematically reviewed by participants and approved. This also assisted review in the piloting stage for the OC rating instrument. Using the Concept Systems™ software, the statements were randomly numbered to reduce bias in the sorting stage. Following the methodology suggested by Trochim, all participants were given a further opportunity to reduce the statement list. The lists were forwarded by email to participants of each group who were asked to identify duplicated statements. They were also asked to suggest an alternative statement which in their view would address any duplication. Participants were asked to carefully review the individual statements and to outline if author editing had resulted in misrepresentation of any of the initial statements. If not, they were asked to approve the statements as the final pre-pilot listing. Once the statement lists were approved the statements were uploaded by the author into web based Concept Systems™ software in order for members of the two concept mapping groups to sort and rate the statement listing.

**Statement sorting and rating**

The process of participant sorting and rating of the statements for each of the groups had commonalities and differences. For the OE exercise, all participants that attended the face-to-face brainstorming session were asked to sort the statements into ‘like’ clusters and rate the statements as to their importance for achieving effectiveness. For the OC
exercise all participants that attended the face-to-face brainstorming session sorted the cultural statements into ‘like’ clusters. Participants of the face-to-face exercise were then asked to rate the statements as to how typical they were of the pharmacy in which they worked and how beneficial each statement is for achieving the profile of an effective community pharmacy. At a later point in the study, all staff and owners of the pharmacies were invited to rate the OC statements enabling a pattern matching substudy to be undertaken (Appendix 4).

Each participant of the OC and OE concept mapping exercises was forwarded an email with the final set of instructions, provided with a log-in and password and asked to complete the sorting and rating steps. In both the OC and OE concept mapping exercises participants were asked to sort statements into homogeneous clusters of ‘like’ statements. The instruction for the sorting stage was to “sort the statements into clusters in a way that makes sense to you” (Nabitz, et al., 2005). This was able to be completed through a drop and drag function within the software. Participants in the OE exercise rated the individual statements for importance in achieving effectiveness. The instruction for the rating of the OE construct was to “rate the statements in terms of how important each statement is to your idea of an effective community pharmacy” using an electronic dot-click Likert scale ranging from 1=least important to 5=most important.

Throughout the entire process the author had administrator status of the Concept Systems™ software and so could view progress of individuals completing different stages of the project and track and monitor this.

Data Analysis

Trochim has extensively published the background and rationale to the analytic theory supporting his approach to concept mapping. The aim of this section is to outline in summary, the adoption of Trochim’s analytic methods. For more detail the reader is referred to a bibliography of Trochim’s work (Trochim, 1989a, 1989b, 1989c; Trochim & Kane, 2005; Trochim & Linton, 1986).

The statistical method for development of the concept maps was carried out using Concept Systems™ software. The major calculations performed by the software include data sorting aggregation, multidimensional scaling, cluster analysis, bridging analysis and sort pile label analysis. The two main statistical techniques used to develop the concept maps were multidimensional scaling (MDS) and hierarchical cluster analysis.
Chapter 7: Research Design

(HCA). Descriptive statistical analysis, such as the mean ratings of each of the clusters making up the final solutions were calculated. Statistical analysis was not undertaken to compare the different cluster solutions that could be selected, as that phase is the interpretative component of Trochim’s method.

Following the sorting stage, data from both the OC and OE concept mapping exercises were subjected to MDS. This is an exploratory statistical technique that allows the visualisation of similarities or differences between lists of statements sorted by a group of individuals. MDS places the statements on a two-dimensional framework and provides the size and shape of each cluster of statements within this frame, dependent on the number of clusters selected when generating the concept maps. A MDS algorithm starts with a matrix of item–item similarities, assigns a location of each item in a dimensional space, suitable for graphing or 3D visualisation. For each statement the MDS analysis yields an $x$ and $y$ value which in a bivariate plot constitutes the basic point map form of the concept map. The $x,y$ values are the input for HCA using Ward’s algorithm, which has the effect of partitioning the MDS statement map hierarchically into non-overlapping clusters (Trochim & Kane, 2005). The size and shape of each cluster within this two-dimensional frame is dependent on the number of clusters selected when generating the concept maps. Kolb and Shepherd (1997) highlight that individual points do not change position on a concept map, but the clustering of points can be manipulated by the researcher to yield a map in which statements within the cluster relate to a common theme and that each cluster is distinctive from other clusters and can be interpreted as such (Kolb & Shepherd, 1997).

Being a predominantly interpretative technique, the selection process for the number of dimensions is by necessity subjective (Kolb & Shepherd, 1997; Trochim, 1989a, 1989b; Trochim & Kane, 2005). Cluster maps were printed out ranging from 5 to 12 cluster solutions for each of the OC and OE constructs. Using an iterative process, solutions were eliminated leaving a final solution that best aligned with the context of the study (Burchell & Kolb, 2003; Kolb & Shepherd, 1997).

Outputs from the OC and OE concept mapping exercises

Once the statements were sorted and rated by participants, concept maps were able to be formulated. A range of cluster solutions and maps were generated for both the OE and OC constructs (see Findings Chapter 8). The point map shows the frequency of similarity...
or dissimilarity among statements. The cluster maps aggregate different groupings of adjacent statements from the point maps, generally 7 to 12 clusters (Burchell & Kolb, 2003; Kolb & Shepherd, 1997).

The point cluster maps for the OE concept mapping exercise were then combined with the importance ratings to form three-dimensional maps. The layers of thickness represent the relative importance of each cluster with respect to the importance rating. The pictorial representation provided the beginnings of an emerging model of effectiveness for community pharmacy which is outlined in Chapter 8. A full profile was generated from the cluster statements and a summary profile developed for use in the interview phase (Chapter 8).

The outputs from the OC concept mapping exercise included a list of cultural dimensions from which a cultural profile could be developed as anchor points for discussion in the interviews. A culture rating tool also allowed the generation of cultural pattern matches which were discussed in the interviews (Appendix 4). As the theory developed, cultural dimensions as anchor points for discussion became more important than the dimensional analysis of culture through the use of the pattern matches.

The interviews

Participant selection

All staff members (n=47) of the six participating case site pharmacies where invited to participate in an interview. This reflected a metaphorical stance of OC, the potential for subcultures and OC as a collective view carried by individuals within an organisation (K. L. Gregory, 1983; Martin, 1992; Meyerson, 1991; Meyerson & Martin, 1987; Sackmann, 1992; Scahill, Harrison, et al., 2009b).

The key purpose of the interviews was as an instrument to explore the nub of the research question; the nature of the relationship between OC and OE. Development through concept mapping of the constructs was an important precursor to exploring the research question. However, in-depth interviews were the primary source of knowledge in understanding the nature of the relationship between OC and OE (Kvale, 1996, 2007). As Kvale (1996) states “The qualitative research interview is a construction site for knowledge”. Kvale also highlights the importance of this part of the study:
The very strength of the interview is its privileged access to the common understanding of subjects, the understanding that provides their world view and the basis for their actions. (Kvale, 1996, p. 291)

…and...with the ‘objects’ – the interview subjects – giving voice to their understanding of an interpersonally negotiated social world, the qualitative interview obtains a privileged position for creating objective knowledge of a conversational world. (Kvale, 1996, p. 298)

This thesis was a theory building exercise, providing explanations to help make connections among concepts (Dey, 1993; Seidman, 2006). The technique of cognitive mapping is used for this sense-making phase (Eden, 1988, 1992; Eden, et al., 1992; Miles & Huberman, 1999).

**Theoretical approach to the interview process**

The approach taken with respect to the interview phase of this study aligns with the epistemological stance adopted (Dey, 1993; Lofland & Lofland, 1995; Seidman, 2006; Spradley, 1979; Wodak & Krzyzanowski, 2008) and the complex level of interplay expected between OC and OE (Chapter 6). This study was founded on social constructionism and so how the interviews were played out, as social interaction, was important. Equally the movement away from linearity and a greater emphasis on complex designs, complexity and chaotic possibilities was required (Grbich, 2004). The focus of the interview process was on the development of ideas to build theory rather than the gathering of facts and statistics. The process was not so much about data collection as ideas collection (Oppenheim, 2003). This project utilised a general interview guide approach that was semi-structured but conducted with the opportunity for open ended discussion. The interview schema provided a list of questions to be explored in order that the same information was obtained from a number of people by broadly covering the same material. The set of questions were carefully worded and arranged with the intention of taking each respondent through the same questions, but not always using exactly the same words.

**Choice of interview questions and development of the schema**

The interview questions were developed iteratively between 22nd September 2008 and 15th May 2009. The schema was passed through nine major draft iterations during this
time. Development was influenced by knowledge of the literature, peer and supervisor review and pilot testing in the field.

There was a large body of literature to draw on for the development of interview schema. Standard texts were consulted with a focus on question construction (Foddy, 1996; Gillham, 2000), interviewer as research instrument (Denzin & Lincoln, 2005; Oppenheim, 2003) the interview as social interaction (Drew, Raymond, & Weinberg, 2006; Kvale, 1996), types of interview (N. Fielding & Thomas, 2001; Minichello, Aroni, Timewell, & Alexander, 1995; Patton, 1980, 1990) schema development as it relates to epistemological stance and coherent down-stream analysis (Alvesson & Skoldberg, 2000; Dey, 1993; Lofland & Lofland, 1995; Miles & Huberman, 1999; Seidman, 2006; Spradley, 1979; Wodak & Krzyzanowski, 2008) and the piloting process (Gillham, 2000; Kvale, 1996, 2007).

Peer and supervisor review were employed to examine and challenge the rationale for each section of the schema based on the nub of the research question. This was undertaken over nine 1.5 hour meetings. The flow of the interview in terms of which order the influences of OC or OE were to be introduced and discussed was also debated prior to beginning the piloting process. These discussions contributed significantly to the pre-pilot draft. The interview schema started from a very broad angle and was more abstract in its questioning than the final draft used to pilot. Based on work by Gillham (2000), the overriding consideration in developing the interview schema was:

- What are the questions that can only be answered by asking people?
- How are the questions most efficiently posed or presented?
- How should topics be prioritised, especially for semi-structured interviews?

From this broad approach, pruning took place to focus on topics that were understandable for respondents and distinct from each other and that dealt with a separate facet of the topic area. The emergent character of the interview questions from draft to final is accepted practice (Gillham, 2000) and ensures that the researcher does not develop a list of questions without following due process.

Pilot testing of the interview schema also followed a systematic process. Standard approaches to piloting of both the schema and the interview process took place through ‘mock’ interview then debrief (Foddy, 1996; Gillham, 2000). Representatives from all
levels of work in community pharmacy were engaged to ensure that the schema was understood across the employee pool. In-depth 1.5 hour pilot interviews were undertaken with one staff pharmacist, one pharmacist manager, one pharmacy technician and a retail manager who had previously been a shop assistant. Those involved in the pilot process were not from the pharmacy case sites. In addition to the mock interview, respondents were asked to rephrase the questions in their own words and were also asked how they arrived at their answer (Foddy, 1996). The following questions were posed as part of the pilot process:

- Do you understand the questions being asked?
- What do you think the question is asking?
- Do you think the questions are set out and worded appropriately?
- Do you think all staff members (all levels of staff) within the pharmacy will be able to understand these questions?
- Is the interview schema too long?
- Are there any terms which you don’t understand and need more explanation of?
- Do you have any other suggestions?

The process of theory building

Development of theory is a central activity in organisational research (Eisenhardt, 1989) and advancing the field of management requires theory building (K. G. Smith & Hitt, 2005). In their excellent handbook about theory development within management science, Smith and Hitt (2005) highlight that:

Theory development is highly important in the discipline of management and organizations as it is a relatively young field of study, in comparison to many other social science disciplines. As a young field of study, new theory provides important and unique insights that can advance the fields of understanding of management phenomena. (K. G. Smith & Hitt, 2005, p. 1)

There are many definitions of theory and many ways have been proposed to theorise (Morse, 1994). Not all people use the same approach (Zucker & Darby, 2005). The development of the theory in this thesis was underpinned by a theoretical framework (Chapter 6) which aligns with the ontological and epistemological stance adopted (Huff,
2005). As called for in the OC-OE literature, this theoretical framework guides the exploration of the nature of the OC-OE relationship, within the context of this study (Ashkanasy, et al., 2000; Braithwaite, Hyde, et al., 2010; Davies, et al., 2007; Kernick, 2004a; Scott, Mannion, et al., 2003a; Scott, Mannion, Marshall, et al., 2003; Wilderom, et al., 2000). However, the theoretical framework is exactly that, a framework for the development of the theory, as the main output of this thesis. The framework provides the conceptualisation of OC, OE and the nature of the relationship between these constructs. The framework describes part, but not all of the theory building process and the following section outlines the thought required during the theory building process.

**Philosophical considerations regarding theory building**

Definitions of what theory is range from being structured to being more general in nature. Kerlinger (1979) has described theory as “...a set of interrelated constructs (variables), definitions and propositions that presents a systematic view of phenomena by specifying relationships among variables with the purpose of explaining natural phenomena”. (Kerlinger, 1979, p. 64)

In developing theory about developing theory, Mintzberg (2005) suggests that all theories:

... are, after all, just words and symbols on pieces of paper, about the reality they purport to describe; they are not that reality. So they simplify it. This means we must choose our theories according to how useful they are, not how true they are. (Mintzberg, 2005, p. 356)

There are two main types of theory development: hypothesis testing and proposition generating (Bacharach, 1989; Mintzberg, 2005). These two approaches are reflected in the above quotes. Theory building is generally more abstract than theory testing and involves inductively derived theoretical propositions which help to describe relationships between constructs. On the other hand, theory testing is a more deductive-hypothetical approach which involves the development and testing of hypotheses which relate to the relationship between variables, which may or may not come from construct development within a theoretical framework (Figure 12) (Bacharach, 1989; Eisenhardt, 1989; Locke & Latham, 2005; Mintzberg, 2005; Morse, 1994).
This research aims to build theory, although variables from the constructs (dimensions of OC and OE) have been developed as anchor points for discussion within the interviews. The focus on theory building in this thesis is the development of theoretical propositions. However, these variables lend themselves to further analysis and future research through use of empirical approaches and hypothesis generation and testing.

The approach to theory building should align with the ontological and epistemological stance of the researcher (K. G. Smith & Hitt, 2005). Early theorists of the theory development process came from a positivist frame (Bacharach, 1989; Kuhn, 1970; Popper, 1959) and so were of the belief that the theory development process must include a testing phase. A theory was not a good theory until it was falsified by testing deductions from it (Bacharach, 1989; Popper, 1959; Whetten, 1989).

As management science has matured, some researchers have become frustrated with the dominance of positivism in the field (K. G. Smith & Hitt, 2005). There has been the realisation that more and less abstract theories can stand on their own (Locke & Latham, 2005; Mintzberg, 2005). As with other sociological disciplines the positivist versus interpretative and inductive-deductive arguments have occurred and the approach taken is dependent on the purpose of theory development (Locke & Latham, 2005; Mintzberg, 2005). The need for theory building rests with the need for humans to order and make
sense of reality (Dubin, 1969). The purpose of this thesis is to understand and explain the nature of the relationships between OC and OE as organisational constructs within the context of New Zealand community pharmacy. This involves exploring processes of institutionalisation and Zucker and Darby (2005) suggest that, “Much of the process of institutionalisation is tacit and not open to direct measurement...Constructing institutional theory is much like social construction; it is inherently a social process and also often has tacit components” (Zucker & Darby, 2005, p. 547, pp. 567–68).

The tacit nature of OC and of the theory building process per se presents significant challenge within this thesis. The major challenge is the ‘codification’ of abstractions: the summarising, organising and distributing of key arguments into a comprehensive framework (K. G. Smith & Hitt, 2005). The more abstract the theory, the more difficult the codification process. The socially constructed nature of theory building and the challenges associated with its tacit nature fit with the ontology and epistemology of this.

The approach to this theory building effort was inductive in terms of going from the particular to the general, tangible data to general concepts (Mintzberg, 2005). This is counter to the hypothetico-deductive method where theory development follows a line from general to particular. Those who align with positivism, take the view that knowledge of reality is impossible (Kuhn, 1970; Popper, 1959). They believe that theories are not based on observations of reality and so cannot be proven, they can only be falsified by testing deductions from them (Bacharach, 1989; Popper, 1959). These two processes of inductive and deductive methods feed into each other, but the work is often undertaken by people representing different schools of thought (Mintzberg, 2005).

The level at which theory is developed is important. Classification for types of theory have predominantly been that of grand theories or mid-range theories (Frese, 2005; Merriam, 1988). Grand theories attempt to understand the ‘complete’ picture and as a result, tend to be complex and tacit in nature. Grand theories are all encompassing, ‘uncertainty reducing’ and less precise. Mid range theories consist of a limited number of variables, they fit between a working hypothesis and an all inclusive effort of a unified grand theory, and are supported by limited assumptions, and have high problem specification (Frese, 2005; Mintzberg, 2005). This thesis reflects the development of a grand theory.
The process of theory development

Developing new theory is a creative act (K. G. Smith & Hitt, 2005). Mintzberg (2005) alludes to the tacit processes associated with this process of theory building, stating “I have no clue about how I develop theory. I don’t think about it; I just try to do it. Indeed, thinking about it could be dangerous” (Mintzberg, 2005, p. 355).

The theory of this thesis has been developed predominantly from cognitive mapping processes. Cognitive mapping was chosen to help make sense of the likely complex and non-linear interactions between OC and OE. The process was inductive and broadly followed a combination of steps outlined by contemporary management theorists (Locke & Latham, 2005; K. G. Smith & Hitt, 2005). Theory development requires researchers to identify constructs and/or variables associated with constructs, state relationships and clarify boundary conditions (K. G. Smith & Hitt, 2005). The approach to theory building of 30 organisational scientists has been summarised into four steps which have been applied to this thesis. These steps include: outlining tension/phenomena or an interesting question, development of an initial framework to guide the research, elaboration and the research per se and proclamation and presentation of the theory.

The following section describes the interviewing phase of the study which reflects the elaboration/research part of the process. This part includes data gathering, reduction and differentiation, re-integration, identifying causal relationships, interplays and feedback loops and taking time to generate multiple iterations to ensure a seasoned understanding (Locke & Latham, 2005; K. G. Smith & Hitt, 2005).

Interviews were always conducted in a quiet and private part of the pharmacies, most commonly in a back office. All staff were invited to participate in the interview process, and all staff in one pharmacy were interviewed before moving onto the next. Two electronic dictaphones were used to record the interviews; one recorded digitally, the other an analog unit recorded onto micro tape. Additional notes were also taken by the author to complement these interviews. Each interview was around 1 hour in duration. Before questioning and the formal recording process began participants were reminded of the purpose of the project and informed of the interview format Appendix 3. Participants were also provided with definitions of OC and OE and given time to read the profiles of these constructs.
Data management and transcribing

The sound files from each interview were downloaded from the dictaphone and saved onto a password protected computer. These files acted as the backup and were also used to clarify sections of the analog tapes as needed. The analog tapes were used for the transcription process based on the availability of a microcassette transcription unit for the 2 month duration of the transcription process. The 47 analog tapes were transcribed verbatim by the author into Microsoft Word 2007 and saved as individual files. Transcription was not simply a technical procedure, but further immersion in the data (Denzin & Lincoln, 2005). Based on this reasoning the transcription was not out-sourced.

The analog tapes were of high quality and a minimal number of transcripts required clarification. One small section of a single tape was not able to be understood through listening to both analog and digital tapes due to unexpected interruption, noise and the speaker’s accent. The transcripts were formatted in a uniform manner to allow uploading into NVivo (NVivo™, Version 7). The verbatim text clearly identified researcher and respondent voice and was 1.5 spaced for ease of reading and note taking.

Analysis of interview dialogue

As is often the case with interpretative research, clear delineation between the data management, analysis and interpretation is not possible (Kvale, 1996, 2007; Liamputtong & Ezzy, 2005; Miles & Huberman, 1999). Kvale (1996) defines analysis in three stages: structuring, clarification and analysis proper. Structuring involves systematic formatting of transcripts to manage large and complex interview materials. Clarification involves making the material amenable to analysis through “eliminating superfluous material such as digressions and repetitions, distinguishing between the essential and the non-essential” (Kvale, 1996, p. 191).

Kvale’s account of the analytic process appears to end at data analysis, whilst other researchers suggest the importance of the interpretation of analytic findings and attempt to highlight the importance of the interpretative stage in making sense of the data (Crotty, 1998; Denzin & Lincoln, 2005; Miles & Huberman, 1999; Morgan & Smircich, 1980; Silverman, 2001). An attempt is made in this thesis to highlight the contributions of both the analytic process and interpretation in order to develop the theory.
Cognitive mapping was used as the primary analytic method and reflects the data with participants’ language being taken into the maps. Cognitive mapping is a powerful way to represent dialogue from raw data in order to assist analysis, through questioning and understanding of the data (Miles & Huberman, 1999). Sixteen maps were generated from discussion about the OC and OE dimensions. One cognitive map was generated for each of the eight OC dimensions describing how each dimension might influence OE (Appendix 5). There were also eight cognitive maps generated which describe how each OE dimension might influence OC (Appendix 7).

Although interpretation through cognitive mapping may sound relatively straightforward, some months were spent managing the transition from data reduction and storage to the process of mapping. Although there was an understanding of the likely complexity of the interplays and therefore the need to depict the data analysis in this manner, the process at this stage was emerging. It took much longer than expected to transition into the full cognitive mapping process. The emergent nature does not suggest a lack of rigour; it just took much longer to get to the endpoint of analysis and interpretation than expected.

The main considerations for the adoption of cognitive mapping were theoretical and operational (Hussey & Hussey, 1997; Miles & Huberman, 1999). Theoretical considerations included alignment with the ontological and epistemological stances adopted in order to conduct the study and the theoretical basis for cognitive mapping techniques per se. Operational considerations included: preparation and reduction of the source data, the mapping process, analysis and interpretation. The subsequent theory development is outlined in a separate section as it relies on other analytic and interpretative processes in addition to the cognitive mapping data.

**Theoretical basis for cognitive mapping**

Cognitive mapping is not simply a mechanical drawing tool or process, it is bounded by theory. Cognitive maps contained raw field data and were used to construct meaning and allow the development of theoretical accounts of phenomena. Based on Kelly’s (1955) theory of personal constructs, cognitive mapping is a method of data representation and analysis used to structure and make sense of written or verbal accounts of phenomena (Hussey & Hussey, 1997; Kelly, 1955).

Ackermann, Eden and Cropper (1990) note that Kelly’s theory of personal constructs suggests:
...we make sense of the world in order to predict how all things being equal, the world will be in the future, and to decide how we might act or intervene in order to achieve what we prefer within that world – a predict- and-control view of problem solving. (Ackerman, Eden, & Cropper, 1990, p. 1)

Personal construct theory aligns with ontology of social constructionism and the interpretative epistemology adopted in this thesis through the need for making sense of the participant’s world. The notion within cognitive mapping theory of a ‘predict and control view’ to some extent supports a cause and effect theory. However, there is no major misalignment with this thesis as cognitive mapping allows for and accommodates non-linear and dynamic interplay through the linking of distinct influences (Ackerman, et al., 1990).

Data reduction and management

The data cleaning process involved an initial first read of the 47 transcripts to look for sections of text that didn’t make sense or were omitted. Amendments were made prior to upload of the transcripts into NVivo software. A standard format was used. Tree nodes were developed to reflect the structure of the interview schema. NVivo was used as a data reduction tool. Within each of the NVivo nodes, descriptions of influence were represented by phrases of about 10 words which retained the language of the participant. These snippets of language were treated as distinct influences and the interplays between them where mapped out. Long sentences were separated into shorter sentences and mapped.

Analytic mapping processes and data presentation

Sixteen cognitive maps were developed. Eight depicted the influence of dimensions of OC on OE and eight depicted the influence of OE on OC. The language of participants was used and distinct phrases were linked in a hierarchical flow of dialogue of influence and endpoint. The flow of mapping was not assumed to be linear or causal but did have to provide the explanations leading to consequences. All attempts were made to retain ownership of participant language by not abbreviating words and phrases used by them. Meaning was retained as constructed and not lost in translation from raw dialogue to map.
Chapter 7: Research Design

The mapping process was initially manual with phrases being mapped by hand. Quotes and phrases were physically cut out from paper printouts of the NVivo tree nodes, sellotaped and mapped onto A3 sheets of paper. A cognitive map was undertaken for each participant and then amalgamated at the level of the individual dimensions under study. A manual approach allowed further immersion in the data. NVivo provided the platform for data reduction and Visio (Microsoft Office™) provided a tool to move from manual mapping to electronic presentation of the maps on a single sheet of A4 paper. In this way, influences and interplays were depicted and able to be interpreted in a single view. Hierarchy of interplays and influences were built up by following through the flow of dialogue. Influences and interplays were summarised in small rectangle text boxes rather than as continuous lines. For the OC maps the starting point was the bottom of the page depicting the cultural orientation. The beginning of each interview provided a description of ‘the way it is around here’ (the cultural orientation) and then the interplays that influenced the outcomes expected by participants were mapped from this. This followed the flow of dialogue in the interview. The influence of OE on OC was mapped from left to right as per the theoretical framework structure (Chapter 6). The page was split in half for the OE mapping, the bottom depicting being effective, the top half not being the case.

The opposite poles of the maps were deemed important for clarification regarding start and end points, not only of discussion, but also of influences and of that being influenced. Sense-making was also aided by placing influences in the imperative form, including actors and actions as possible and appropriate. The patterns of interplay and dominant relationships were made superordinate to specific items that contribute to them and the mapping included explanation. Without reducing complexity and losing the link to raw data, a ‘ tidy-up’ of the maps allowed a complete and clear depiction of the influences and interplays that were occurring in each map.

Interpretation – recontextualising

Mapping revealed the patterns or reasonings about influences of one construct on another in a way that a stream of linear text cannot. The influence of one construct relative to another was considered whilst mapping and during subsequent interpretation of the maps. Descriptive narratives of each map were developed as part of the analytic process to assist with the interpretation and sense-making process. These workings have not been included in the Appendices for the purpose of brevity. The narratives were extensive and
lengthy and served as a working analysis and a platform for reflexive thinking. Common patterns of influence across the various dimensions of OC and OE were identified and explored through the maps, the narratives and the summary tables resulting from the narratives (Appendix 6). Patterns of influence and interplay that participants saw as a primary idea were identified and described (Miles & Huberman, 1999).

The theory of this thesis did not emerge ‘all at once in a flash of insight’ rather it was an ongoing, iterative process, moving back and forth between constructs and the variables that make up the constructs and the relationships between these. Theory development was undertaken over a prolonged period of time (August 2010 to August 2011), through a process of continual refinement and peer review with the research team.

**Techniques for ensuring rigour**

Researchers taking a pure naturalistic route have endured much scepticism from their positivist colleagues about the ‘trustworthiness’ of taking such approaches (Freeman & Peck, 2010; Lincoln & Guba, 1985). The development of organisational theory in particular, has come up against a barrage of evaluative criteria, generally set within a positivistic frame (K. G. Smith & Hitt, 2005). The issue of theory evaluation is sensitive with application of rigid criteria cautioned:

> To dangle criteria (for the evaluation of theory) above the head of a theorist like the Sword of Damocles may stifle creativity. In most of our work, flaws in theoretical logic can be found. However, during the early stages of theory building, there may be a fine line between satisfying the criteria of the internal logic of theory and achieving a creative contribution. A good theorist walks this line carefully. (Bacharach, 1989, p. 513)

Theory building is a process of social construction and Mintzberg (2005) highlights that what theories are not, that is ‘true’. This thesis is founded on interpretative epistemologies and it seems that considering different forms of rigour is a more acceptable approach than applying Lincoln and Guba’s (1985) well known categories of trustworthiness including: credibility, transferability, dependability, and confirmability. Liamputtong and Ezzy (2005) provide such a framework with categories of rigour including: theoretical, procedural, interpretative, triangulation, evaluative, rigour reflexivity.
Theoretical rigour

Theoretical rigour is demonstrated by a study that integrates the research question into the study design that integrates and aligns a theoretical frame with operational method (Crotty, 1998; Liamputtong & Ezzy, 2005; K. G. Smith & Hitt, 2005). Considerable time and energy has been spent developing a research design which reflects this. Ontological assumptions are founded on social constructionism. OC and OE are framed this way, as is the relationship between them where meaning is constructed not discovered (Crotty, 1998). A theory is built through cognitive mapping of dialogue which retains the language of participants and is founded on personal construct theory (Kelly, 1955). This aligns with the socially constructed nature of OC, OE and the relationship between them. It is an accepted analytic method when taking an interpretative approach.

Procedural rigour

An explicit account of how the research was conducted provides operational rigour (Silverman, 2001). The aim has been to carefully document the development of theoretical propositions. From sample selection, through data collection, analysis, interpretation and theory development procedures were documented and there was alignment between the different parts of the study. Although an audit has not been undertaken, a trail of methodological and analytic decisions made has been kept. Thus a tracking back beyond original source data to the respondents is possible, enhancing the dependability and credibility of the study.

Procedural rigour also includes aspects of courteous and ethical conduct such as: negotiation of access, approach toward participants, the development of trust and rapport, how surprises were dealt with and feedback to participants of findings. Due process was followed to ensure the study was conducted ethically.

Interpretative rigour

Liamputtong and Ezzy (2005) highlight that many researchers encounter crises of confidence about the validity of their own interpretations. However, Lincoln and Guba (1985) suggest that the notion of validity is foreign to true interpretative research and assessing credibility is more appropriate. Rejection of modernist positivist assumptions that there is one true objective interpretation does not mean that research rigour should be discarded. Postmodernists have argued that there are no final grounds for accepting all
interpretations as ‘accurate’ (Grbich, 2004). This thesis does not adopt a wholly postmodernist stance but is guided by the ontology of social constructionism. In this way meaning is constructed, not discovered and therefore the interpretation is dependent on who constructs the meaning. Multiple interpretations of the same phenomena by different individuals is possible, and in-fact, highly likely (Berger & Luckmann, 1967; Crotty, 1998; Huff, 2005; Liampkuttong & Ezzy, 2005; Lincoln & Guba, 1985; Weick, 1995, 2005). An interpretative stance is therefore appropriate under an ontological frame of social constructionism, as long as rigorous process is outlined (Crotty, 1998; Hussey & Hussey, 1997; Lincoln & Guba, 1985). Liampputtong and Ezzy suggest that interpretative rigour is afforded if the study accurately represents the understandings of events and actions within the framework and the worldview of the people engaged with it. Interpretative rigour is assisted in this thesis by maintaining the language of the respondents in the cognitive maps as data, alongside analysis and subsequent interpretation.

**Triangulation**

Triangulation allows the researcher to develop a complex picture of the phenomenon being studied, which might otherwise be unavailable if only one method were utilised (Kotter, 1995; Patton, 1980, 1990; Silverman, 2001). Triangulation is an important feature of establishing trustworthiness of data with use of multi-methods (Denison & Mishra, 1995; Hofstede, et al., 1990; Jick, 1979; Martin, 2002; Siehl & Martin, 1990). Pure positivist researchers appear not to incorporate triangulation into their research designs, with the focus being on validity and reliability of the typology used (Cameron & Quinn, 1999) in contrast to the human as research instrument (Lincoln & Guba, 1985).

Multi-methods including qualitative and quantitative techniques are acceptable within an interpretative frame although qualitative processes dominate (Lincoln & Guba, 1985). This is not strictly a mixed methods study – the nub of the research question is wholly interpretative, that is, using dimensional data as anchor points for discussion, not as a data cross check. As it has developed, this thesis has become less dimensional and therefore less empiric. As a consequence, the use of concept mapping and pattern matching techniques were used more for construct operationalisation and less for triangulation. The focus was far less about organisational change and more about the relationship between OC and OE and so although published as a significant output of this thesis (Seahill, Carswell, et al., 2010), the pattern matching aspect appears within an
Appendix as a substudy (Appendix 4). Triangulation is largely a positivist phenomenon and interpretative rigour and rigorous reflexivity are more important to theory building under interpretativist epistemologies. As such there is little concern about the use of the pattern matches for triangulation (K. G. Smith & Hitt, 2005).

Evaluative rigour: ethics, politics and exposure through publication

Simply completing the operational tasks required by procedural ethics does not address the more general issue of considering the political and social consequences of the research (Liamputtong & Ezzy, 2005; Lincoln & Guba, 1985). Both commentary and data driven publications have been derived from this thesis. For the citations, the reader is referred to the research outputs section in the front of this thesis. The papers derived from this thesis challenge the pharmacy profession, academia, health policy-makers and other health professional groups. Evaluation of the wider project has also resulted from this process.

Rigorous reflexivity

This thesis is founded on the ontological assumptions of social constructionism. Knowledge is not discovered, knowledge is constructed as people go about their daily lives (Crotty, 1998). The theory building process is a form of social construction and so the researcher is a firmly entrenched instrument of the research (Grbich, 2004). The reflexivity within this thesis plays out at both the conceptual and the operational level. At the conceptual level, the sections in the discussion on study limitations and particularly future research examine the position of project and researcher on the positivist-interpretivist research spectrum. The other activity that ensured reflexivity (of a verbal nature) was rigorous debate within the supervisory team about: emerging data and the developing narratives of cognitive maps; defence of the theoretical framework, the methods adopted and the more tacit aspects of the theory. The entire process of the PhD has been an exercise in rigorous reflexivity.

Ethics committee approval

The Multi-region Ethics Committee (New Ministry of Health) approved this study on 11th February 2008 (Reference MEC/08/08/EXP) and due process was followed throughout the study.
Reporting of research outputs

This thesis has been a research apprenticeship with the aim of disseminating as much of the thesis in publication as possible. This thesis is underpinned by the notion that research outputs are not the endpoint of the study process, but integral to the progress of the work and the thinking involved. Blinded peer review is provided which can be technically valuable as well as uplifting when papers are accepted even following considerable revision. Framing conceptual papers assists with development of underlying ontological and epistemological assumptions, but these papers are yet to be published as the thought comes to an integral whole much closer to submission of the thesis.

There continues to be a thrill and a feeling of closure when aspects of this thesis have been published. In an incremental way this has helped to drive the research process to completion. The focus has been on the empiric construct development papers and commentary with a view to introducing organisational science to the field of pharmacy practice research. The challenge is now to complete the conceptual and theoretical papers. In a sense, this cannot be done until toward the end of the write-up phase as the theory comes together as a whole at that point (Mintzberg, 2005). Further papers can also be derived from dimensional analysis of the data. These papers are important despite this not being a focus of the emerging thesis.

Chapter summary

The ontology of this thesis was founded on social constructionism, the epistemological stance interpretative. A theoretical framework has guided the conceptualisation and operationalisation of OC, OE and the relationship between them. The interpretative technique of Trochim’s concept mapping was adopted for inductive generation of the OC and OE constructs. The nature of the relationship between OC and OE was explored through in-depth semi-structured interviews, 47 in total. Interpretation of the interviews was aided by a cognitive mapping process. A theory was built through sense-making of 16 cognitive maps.
Chapter 8: Operationalising Culture (OC) and Effectiveness (OE)

Purpose of Chapter 8

The purpose of this chapter is to report on the outputs from the methods of operationalising culture and effectiveness.

Development of OE construct

Constructs are not directly observable and are viewed as broad mental configurations of a given phenomenon (Bacharach, 1989; Mintzberg, 2005; Zucker & Darby, 2005). Variables can be derived to represent and operationalise constructs (Bacharach, 1989). The outputs from this part of the study were a necessary step to address the notion of the relationship between OC and OE. This chapter outlines the operationalisation of OC and OE.

Statement generation (OE)

During a 2 hour face-to-face session, 104 statements were generated. No direct replication was identified by participants during or following the meeting and the final statement list contained the original 104 statements. In both concept mapping exercises, the smaller cluster solutions (5 to 7) provided a broad spread of concepts within the cluster which were difficult to label. The larger cluster solutions (9 to 12) seemed too fragmented and repetitive. In the end, an eight cluster solution was chosen as the most workable map for both constructs. This was based on an iterative process and considered contextual factors.

An eight cluster solution contained themes that were distinct from others and this appeared to be the optimal solution. The eight cluster solution of organisational effectiveness included the following clusters: has a community focus; communicates and advocates; provides health promotion and preventative care; has safe and effective workflows; contributes to the safe use of medicines; has skilled staff, effective management and leadership; is a respected innovator, takes opportunities and prepares for change; and is integrated within the primary care sector. The statements, their cluster groupings and importance ratings are outlined in Table 9. These results reflect the
relative importance of each statement for achieving organisational effectiveness, based on a 5-point electronic dot-click Likert scale of least through to most important.
Table 9: Clusters of OE statements sorted by participants for importance

<table>
<thead>
<tr>
<th>Cluster</th>
<th>Cluster definition</th>
<th>Cluster mean importance</th>
<th>Number of items</th>
<th>Statement</th>
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</table>
| 1       | Safe and effective workflow              | 4.40                    | 14             | Operates safely  
|         |                                          |                         |                | Works within the law  
|         |                                          |                         |                | Has a workplace environment that supports safe and accurate dispensing  
|         |                                          |                         |                | Has the correct procedures in place  
|         |                                          |                         |                | Dispenses medicines accurately  
|         |                                          |                         |                | Keeps accurate dispensing records  
|         |                                          |                         |                | Provides consistently high service provision  
|         |                                          |                         |                | Picks up errors inherent in the prescription system  
|         |                                          |                         |                | Provides access to medicines in a timely manner  
|         |                                          |                         |                | Belongs to appropriate professional bodies  
|         |                                          |                         |                | Has a dispensary which is physically organised  
|         |                                          |                         |                | Holds adequate stock  
|         |                                          |                         |                | Has a dispensary which incorporates an efficient workflow  
|         |                                          |                         |                | Maintains good stock management  
| 2       | Contributes to safe use of medicines     | 4.30                    | 15             | Safeguards the public from medicines related harm  
|         |                                          |                         |                | Has medicines safety as its primary concern  
|         |                                          |                         |                | Acts as a safety net for prescriptions  
|         |                                          |                         |                | Can assess and help manage patients on complex medication regimens  
|         |                                          |                         |                | Recognises adherence issues  
|         |                                          |                         |                | Gives appropriate advice and counselling about medicines  
|         |                                          |                         |                | Has access to evidence-based medicines information sources  
|         |                                          |                         |                | Takes an evidence-based approach to managing a wide range of patient presentations  
|         |                                          |                         |                | Imparts medicines information in an appropriate manner  
|         |                                          |                         |                | Provides strategies to manage inappropriate compliance  
|         |                                          |                         |                | Is a repository of medicines advice  
|         |                                          |                         |                | Provides medicines advice across all products  
|         |                                          |                         |                | Acts as a safety net for inaccurate lay advice about health care  
|         |                                          |                         |                | Is a health translator  
|         |                                          |                         |                | Sources unusual or difficult requests  

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<th>Statement</th>
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</table>
| 3       | Has skilled workers, effective management and leadership | 4.21                   | 13              | Is staffed by skilled people  
Ensures people are trained for the job  
Is financially sustainable  
Demonstrates good business management  
Has key personnel accessible for advice and intervention  
Is aware of its clinical limitations and contracts staff appropriately  
Values its staff  
Makes good use of all the skill-sets of its employees  
Provides a positive working environment for staff  
Undertakes ongoing business and service assessment  
Has pharmacists working collegially  
Provides for staff development  
Pays staff adequately |
| 4       | Community focus    | 3.94                    | 11              | Satisfies the needs of its customers  
Maintains confidentiality  
Is aware of patient needs  
Is culturally adapted to the needs of the community  
Provides a friendly welcoming environment  
Stands in the patient’s shoes  
Is an integral part of the community in which it is located  
Identifies gaps in service provision for patients  
Is a patient advocate  
Is willing to participate in activities outside of core functions to improve health outcomes for the community  
Undertakes community health screening activities |
<table>
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<tr>
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<th>Cluster definition</th>
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</table>
| 5       | Respected innovator                        | 3.84                    | 19             | Has the confidence of other health professionals  
|         |                                             |                         |                | Is funded adequately to provide appropriate high level pharmacy services  
|         |                                             |                         |                | Is an ethical business  
|         |                                             |                         |                | Advocates continuing professional development  
|         |                                             |                         |                | Is respected professionally  
|         |                                             |                         |                | Is a respected part of the community  
|         |                                             |                         |                | Understands the New Zealand Primary Health Care Strategy  
|         |                                             |                         |                | Has the confidence of its funders  
|         |                                             |                         |                | Responds to new service requirements  
|         |                                             |                         |                | Uses technology to make life easier  
|         |                                             |                         |                | Seeks to embrace new opportunities  
|         |                                             |                         |                | Is cognisant of new developments  
|         |                                             |                         |                | Advances the profession of pharmacy  
|         |                                             |                         |                | Drives its own destiny  
|         |                                             |                         |                | Involves itself in governance roles  
|         |                                             |                         |                | Is innovative and looks outside the square  
|         |                                             |                         |                | Embraces change  
|         |                                             |                         |                | Adapts to external pressures  
|         |                                             |                         |                | Is an early adopter  
| 6       | Health promotion and preventative care      | 3.75                    | 11             | Gives confidential advice to patients in an appropriate environment  
|         |                                             |                         |                | Empowers their clients to manage their health and wellness  
|         |                                             |                         |                | Has positive impact on health outcomes  
|         |                                             |                         |                | Provides clarity on media interpretation of medicines issues  
|         |                                             |                         |                | Acknowledges that treatment is an holistic process, especially in chronic care conditions  
|         |                                             |                         |                | Identifies health risk including health inequalities  
|         |                                             |                         |                | Promotes healthy lifestyles  
|         |                                             |                         |                | Involves itself in primary care preventative medicine  
|         |                                             |                         |                | Carries a range of OTC products that enhance health and well being in a holistic sense  
|         |                                             |                         |                | Supports patients in public health programmes  
<p>|         |                                             |                         |                | Implements recovery programmes e.g. addiction and mental health |</p>
<table>
<thead>
<tr>
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<th>Number of items</th>
<th>Statement</th>
</tr>
</thead>
</table>
| 7       | Integrated within primary care  | 3.73                    | 10              | Has an active relationship with other health care providers  
Works collegially with other health care members  
Is appropriately located relative to the community  
Understands government health policy  
Has an interconnected information system with the rest of the healthcare system  
Proactively engages with health sectors  
Understands the broader health relationships  
Involves itself with ongoing Primary Health Organisation (PHO) developments  
Is actively involved in health service development  
Is appropriately located relative to medical practice |
| 8       | Communicates and advocates      | 3.64                    | 11              | Assesses and refers patients where appropriate  
Can recognise a major health crisis and respond  
Improves prescriber behaviour when writing prescriptions  
Is an advocate of the benefit of medicines  
Adds wrap around services to the dispensing process  
Provides services that reduce the load on GP’s, e.g. minor ailments  
Explains health policies to patients  
Is the most accessible gateway to the health system  
Role models healthy lifestyles  
Works collaboratively with health screening  
Is prepared to lobby bureaucracy on behalf of patients |

Source: (Seahill, Harrison, & Carswell, 2010b)
**Concept map – a model of organisational effectiveness**

An eight cluster solution provided a concept map that was formulated into a quadrant model of organisational effectiveness (Figure 13). The vertical axis of the OE model was labelled ‘stakeholder focus’ with poles ‘internal capacity and efficiency’ and ‘social utility’. The horizontal axis was labelled ‘role development’ with poles ‘traditional safety role’ and ‘integration and innovation’. The ratings of importance were depicted as increasing layers. They signify that human resources (skilled staff) management and leadership, safe and effective workflow and contribution to the safe use of medicines were seen by participants as the most important clusters. Less importance was placed on innovation, integration, having a community focus, providing health promotion and preventative care and advocating for patients and communicating amongst this multi-constituent group.

![Concept map: Organisational effectiveness](image)

*Figure 13: Concept map: Organisational effectiveness*

A full descriptive profile of OE was developed (Panel 6) for use in the interview setting (Chapter 7).
Panel 6: Full profile of the dimensions of organisational effectiveness

Below are clusters of activity that describe an effective community pharmacy from the viewpoint of multiple stakeholders.

Cluster 1: Has a community focus
Description: Is an advocate who stands in the shoes of patients and is aware of their needs. Provides a friendly welcoming environment where confidentiality is maintained. Identifies gaps in service provision for patients, is an integral part of the community being culturally adapted to that community.

Cluster 2: Communicates and advocates
Description: Is an advocate for the benefit of medicines, role models healthy lifestyles, explains health policy and lobby for patients. Is a gateway to the health care system, assessing and referring patients and has the ability to recognise health crises and respond. Works collaboratively with health screening, works with prescribers to improve prescribing, and undertakes tasks that will reduce their workload. Provides counselling at the time of dispensing.

Cluster 3: Involved with health promotion and preventative care
Description: Involves itself in primary care preventative medicine and has positive impact on health outcomes. Identifies health risk, promotes healthy lifestyles, supports patients in public health and recovery programmes and empowers them to manage their health and wellness. Takes a holistic approach to health care, particularly chronic care. Provides confidential advice in an appropriate environment and carries a range of OTC products that enhance health and wellbeing in a holistic sense.

Cluster 4: Has safe and effective workflows
Description: Has a workplace environment that supports efficient workflow and safe and accurate dispensing. Has procedures in place and picks up errors inherent in the prescription system, holds adequate stock and manages stock levels. Keeps accurate records of medicines dispensing, dispenses in a timely and safe manner. Works within the law and belongs to appropriate professional bodies.

Cluster 5: Contributes to the safe use of medicines
Description: Safeguards the public from medicines related harm, with medicines safety as its primary concern. Acts as a safety net for prescription medicine errors and inaccurate lay advice. Assesses and helps manage people with complex medication regimens, recognises and provides management strategies for adherence and compliance issues. Is a repository for medicines advice, providing evidence based medicines advice and counselling. Is a health translator whom sources unusual or difficult requests.

Cluster 6: Has skilled workers, effective management and leadership
Description: Staffed by skilled people who are trained for the job and accessible to provide advice and intervention. Makes good use of the skill-sets of its employees, values staff and is a positive working environment for staff. Has pharmacists working collegially, provides for staff development and is aware of clinical limitations and contracts staff appropriately. Demonstrates good business management, undertakes ongoing business and service assessment and maintains a level of financial sustainability.

Cluster 7: A respected innovator that takes opportunities and prepares for change
Description: Is cognisant of new developments, an early adopter, an embracer of change, always seeking new opportunities. Being innovative it looks outside the square, adapts to external pressures and drives its own destiny to advance the profession of pharmacy. It responds to new service requirements and uses technology to make life easier. There is an understanding of the New Zealand Primary Health Care Strategy and Pharmacy has captured the confidence of its funders and is adequately funded to provide appropriate high level pharmacy services. Being an ethical business, advocating continuing professional development (CPD) it is respected both professionally and as part of the community. It has the confidence of other health professions.

Cluster 8: Is integrated within the rest of primary care
Description: Has active relationships and works collegially with other healthcare providers, understands broader health relationships and proactively engages with other health sectors. Understands government healthcare policy, involves itself with Primary Health Organisation (PHO) developments and is actively involved in health service development. Is appropriately located relative to the community and medical practices and is interconnected with the rest of the healthcare system.

Source: (Seahill, Harrison, & Carswell, 2010b)

A summary profile was also developed for use in the interviews (Panel 7).
Panel 7: Summary profile of what constitutes an effective community pharmacy

An effective community pharmacy is one that:

- Has a community focus and advocates for patients
- Communicates and collaborates with other healthcare providers such as GPs
- Is an advocate for the benefit of medicines and healthy lifestyles
- Takes a holistic (overall) approach to chronic disease. Involves itself in preventative medicine through identifying patients with a higher likelihood of disease through screening programmes and by providing health promotion and over-the-counter (OTC) products
- Has a workplace environment and systems that support safe and effective workflows
- Contributes to the safe use of medicines from supply through to the medicine being taken
- Is staffed by skilled people who work collegially (i.e., work well together), has good management and is able to operate financially
- Is innovative, takes opportunities early and is prepared to change
- Is respected and integrated within the rest of primary care

Development of the OC construct

Statement generation for the OC construct

During the 2 hour face-to-face session, 105 statements were generated. An eight cluster solution contained themes that were distinct from other cluster options. This solution appeared to be optimal and included: leadership and staff management; valuing each other and the team; free thinking, fun and open to challenge; trusted behaviour; customer relations; focus on external integration; providing systematic advice and the embracing of innovation.
Panel 8: Full profile of the dimensions of organisational culture

Cluster 1: Leadership and staff management
Description: Visible leadership, open door management policies and owners that pull their own weight. Ongoing monitoring of staff and students, fostering a learning environment and support for the professional decisions of other staff. There is an expectation of self-improvement from all, being inclusive rather than exclusive and instilling confidence within the organisation and having effective communicators within the team. Employment occurs from ethnic groups appropriate to the business organisation and there is flexibility around work hours.

Cluster 2: Valuing each other and the team
Description: Ensure staff welfare, value their own lifestyle, empower them to make decisions and thank them at the end of the day. Look after new staff and respect the long serving members of staff. Accept and respect each other’s differences, work as a team and don’t make it hard for fellow workers. Lead by example, be hands on and develop the best aspects of people. Have current students who stimulate fresh ideas and staff that ‘step-up’ for employers when they are absent. Family of staff come first over their job or is there no such thing as a sick day?

Cluster 3: Free thinking, fun and open to challenge
Description: Always challenge yourself, accentuate the positive and have fun and enjoy what you do! Be open-minded, have enquiring minds, undertake blue-sky thinking but if you don’t know ask. Use your privileged position to help others, be approachable open and friendly. Aim to succeed, take responsibility and have respect for your boss while achieving work-life balance.

Cluster 4: Trusted behaviour
Description: Be intuitive, act with honesty and integrity, follow through with promises, demonstrate ethical behaviour and ensure and maintain confidentiality. Focus on patient safety over speed of service and strive to be accurate. Do it once and do it right. Be proactive, attempt to be first, an early adopter. Trust your gut feel but reflect on the service you provide. Treat people how you would like to be treated, establish and maintain relationships with customers and to ensure pharmacists are accessible.

Cluster 5: Customer relations
Description: Always do your best for each customer, treat all customers the same, be non-judgmental and understand cultural needs. Provide effective communication at a patient level, take time to counsel patients (unlike at the supermarket), believe customer welfare is paramount and within professional limits that the customer is always right. People don’t care how much you know until they know how much you care. The belief that no one provider owns the patient and there is a need to work together to make things work for the patient. Aim to achieve a high quality service and improve the health of the community.

Cluster 6: Focus on external integration
Description: Effectively communicate to external stakeholders and involve the organisation in external activities to gain knowledge (committees etc.) including involvement with pharmacy sector groups such as The Pharmaceutical Society of New Zealand. Have a strong desire to be an integral part of the community, respond to community changes and participate in public health promotion. Align goals with Primary Health Organizations (PHOs), build relationships thereby linking organisations together, be part of the multidisciplinary health care team and encourage other health professionals (GP’s and nurses) out of their silos (their isolation) to work with pharmacy.

Cluster 7: Providing systematic advice
Description: Taking pragmatic/practical approaches to giving advice, constantly assessing and triaging patients, having systematic processes and ways of thinking. Be responsive to individual needs – staff, patients and health professionals and realise there are boundaries associated with decisions (i.e., knowledge, legal). Deliver new pharmacy services.

Cluster 8: Embracing innovation
Description: Be receptive to new ideas, encourage new ways of doing things and canvas for future direction. Do not have the ‘four walls syndrome’ (i.e., look outside the pharmacy). Have management that provides tools and stimulates new ideas – owners that are working on the business not in the business. The asking of questions such as, “What if”, “What if we change this?” “What can I do to put this right?” and “How do you want me to solve this?”. Have things set up in an organised way, be a safety net for a lot of processes, continually review processes, have inclusive decision making and make decisions from an evidence base. Being in the position to take the front seat, to adapt and change to issues. Profit is not the only driver the pharmacy needs to continue to operate financially.

Source: (Scahill, Harrison, & Carswell, 2010a)
Chapter summary

OC and OE constructs were developed through the guidance of a theoretical framework. The OC construct included a profile of eight dimensions which were used as anchor points for discussion within 47 interviews. Outputs from the OE construct development included a profile with eight dimensions, a summary profile and a model of what constitutes an effective community pharmacy under current New Zealand healthcare policy. These outputs were used in the interview setting to greater and lesser degrees.
Chapter 9: Theoretical Output of this Thesis

Purpose of Chapter 9

This thesis set out to explore the nature of the relationship between organisational culture (OC) and organisational effectiveness (OE) within six New Zealand community-based pharmacies. In doing so, a third construct labelled Valued Outcomes (VO) emerged from interpretation of interview dialogue. The purpose of this chapter is to posit an inductively derived theory of the nature of the relationship between OC, OE and VO, within the context of selected New Zealand community-based pharmacies.

Overview of the theory

Four propositions constitute a theory of the nature of the relationship between OC, OE and an emergent construct labelled VO (Figure 14). The propositions were derived through analysis and interpretation of cognitive maps that were generated from dialogue with participants concerning the eight dimensions of OC and the eight dimensions of OE (Appendix 5 and Appendix 7). The cognitive maps reflect data and summary tables constructed from narratives of the cognitive maps supported interpretation (Appendix 6).

The theoretical propositions:

- VO supersedes OE as a distinct construct, representing organisational endpoints that staff and pharmacy owner’s value.
- The attainment of VO is contingent upon four-wall OC, co-production of OC, and OE which is intermediary and manifests as technical performance.
- The relationship between OC and OE is recursive.
- OC and OE are partially conflated and mutually constituted.

VO emerged to superecede the OE construct as the organisational endpoint in the discussion about how OC influences OE. In this way, OE became intermediary in the discussion, distinct from VO and manifest as the carrying out of prescribed tasks. This is labelled (by the author) as technical performance. Attainment of VO was the primary goal within the pharmacies and is contingent upon three central influences: the internal OC of the pharmacy labelled ‘four-wall’ culture, co-production of OC, and OE manifesting as technical performance. Conceptualised as distinct from the outset, there is a degree of inseparability between OC and OE which emerge as partially conflated
regardless of inductive development as separate constructs. OE influences OC and therefore the attainment of VO in recursive ways, whilst OC is the dominant construct in a mutually constituted relationship between OC and OE.

The remainder of this chapter outlines the evidence supporting each of the four theoretical propositions which constitute the theory of this thesis.

**Theoretical proposition 1: VO supersedes OE as a distinct construct**

**Summary of proposition 1**

VO is articulated by pharmacy owners and staff as a descriptor of desirable organisational level outcomes, and is distinct from and supersedes OE, which manifests as technical performance.
VO emerges as a distinct construct

Participants identified organisational level outcomes which they emphasised and appeared to value. Collectively, these outcomes have been labelled Valued Outcomes (VO) (Figure 15). The dominant components of the VO construct include: customer retention, better health outcomes, and business viability. Other components for which there was less discussion include: efficiency, client safety and staff satisfaction with retention. Through the interviews and subsequent cognitive mapping processes, OE manifested as an intermediary construct in the discussion about how OC might influence OE. VO was what individuals talked about, in terms of the endpoint of influence of dimensions of OC on OE. This was consistent across the eight dimensions of OC, within all six case sites.

Theory building rests with the need to order and make sense of reality (Dubin, 1969) and Zucker and Darby (2005) assert that:

Constructing theory is much like social construction; it is inherently a social process, and also often has significant tacit components. The most difficult work a theorist does is to codify some of the tacit components...codified in a way that makes them more accessible to you as well as others. (Zucker & Darby, 2005, p. 568)
Smith and Hitt (2005) also allude to this stating, “the greater the level of abstraction in the theory the more difficult will be the codification...the process of codification and elaboration may vary depending on the goal of the theory” (K. G. Smith & Hitt, 2005, p. 584).

This thesis outlines a grand theory, based more on theoretical propositions about constructs rather than hypotheses about variables making up those constructs (Bacharach, 1989; Mintzberg, 2005). As such, the tacit components are significant and the emergence of VO is one of those tacit components. VO is seen to emerge through its own identity as a construct distinct from both OC and OE (Figure 15). Differences have been identified between VO and OE that support the notion that they are distinct:

- The VO construct supersedes OE as the endpoint of discussion about the ways in which OC may influence OE.
- OE emerges as an intermediary construct in the discussion about the ways in which OC may influence VO.
- Participants place emphasis on the VO construct as an endpoint and it is more strongly valued by participants compared with the individual dimensions of the OE construct or the OE construct as a whole.
- OE manifests as technical performance – the carrying out of prescribed tasks, and being good at that (see theoretical propositions 2 and 3).

**VO represents organisational endpoint: superseding OE which is intermediary**

Organisational effectiveness is conceptualised within the initial theoretical framework as a high level construct that is value-laden, agenda driven, politically charged and decidedly judgemental. This reflects its multi-constituent nature. From this position, an OE construct was developed and it was expected that it would constitute a model of effectiveness which included organisational endpoints. However, a pattern emerged with OE being an intermediary construct in the discussion of OC influencing VO. The VO construct emerged through the perceptions of pharmacy owners and staff with an emphasis on organisational endpoints. This intermediary position is represented by the schematic diagram below (Figure 16) which emerges from the eight cultural cognitive maps.
Chapter 9: Theoretical Output of this Thesis

An emphasis on VO as important organisational endpoints influenced by OC

One of the facets that set VO apart from OE was the value placed on VO as being important to the organisation; the influence of OC on the organisation. As data collection progressed there was a growing sense of this new construct and the emphasis placed on it by participants. The VO was not a pre-determined construct (as were OC and OE), rather it emerged out of the formal analysis of interviews using cognitive mapping as an analytic tool and through subsequent interpretation.

Dimensions of VO emerged as a result of the fact they were emphasised and valued as important over the OE construct in discussion regarding the influence of OC on effectiveness. The notion that VO was valued is a high level finding and VO were spoken of differently from the OE construct. This is reflected in the following observations:

- VO were deemed to be the endpoint of organisational outcome and what participants were most interested in with respect to organisational effectiveness. OE became an intermediary construct which manifested as technical performance – the carrying out of prescribed tasks (see Theoretical proposition 2).
• Participants talked about and constructed VO differently from OE. They talked about these outcomes in terms of what the organisation must achieve.

• The relationship between OC and VO is interpreted as contingent and participants found this relationship easier to articulate than the influence of OC on OE. This may reflect the notion that staff members identify more with the VO construct than the OE construct.

The notion that each of the dimensions of the VO construct came from emphasis by participants during the interviews, the transcribing of the interviews, textual analysis and the cognitive mapping process. There is an element of tacit knowledge in the construction of this proposition.

**Theoretical proposition 2: Attainment of VO is contingent upon complex influences**

**Summary of proposition 2**

The attainment of VO is contingent upon a range of influences which are not representative of direct causal relationships, but demonstrate complexity and non-linearity. These influences include:

• The four-wall culture and the influence of manifestations of OC on VO.

• Cultural co-production through shaping of four-wall culture by interaction between staff and external actors including: customers and patients, and other healthcare provider organisations.

• OE is not seen to be an organisational endpoint but is intermediary in the discussion between the influences of OC on VO. OE manifests as technical performance-the carrying out of prescribed tasks. Technical performance is supported by cultural orientations toward system development and process.
The attainment of VO is contingent upon influence of four-wall OC and manifestations thereof

The influence of OC on the attainment of each VO has been analysed by cultural dimension (Appendix 5). Additionally, the influence on the attainment of each VO has been analysed (Appendix 6). By taking this approach, common patterns of influence of OC are able to be identified and understood as they relate to the attainment of VO. Data analysis and subsequent interpretation suggests the attainment of VO is contingent upon a range of influences which are not representative of direct causal relationships, but demonstrate a marked degree of non-linearity and complexity as outlined in the following section.

Customer is king

The belief by staff and owners that the “customer is king, looking after customers is what we do all day” and that “customers are integral to pharmacy business” underpins the notion of “doing the best for the customer” (Appendix 5: Figure 27). Treating all customers the same widens appeal and customer base thereby impacting on foot traffic and financial viability of the pharmacy. Advocating and listening, “going the extra mile
and putting things right (in terms of medicines related issues) means customers come back.”

**Attractive atmosphere in which to conduct custom; the better the advice given**

The attainment of VO is contingent upon OC that manifests as “a great environment” in which to conduct custom (Appendix 5: Figure 27). This great environment centres more on the social atmosphere than the physical layout of the pharmacy, and from the viewpoint of staff, results in the provision of “great advice” but also allows the generation of patient trust and confidence (Appendix 5: Figure 28). It is also believed by staff to be a better atmosphere for customers to do their shopping and physical layout does contribute to attracting and retaining customers as a result of innovative approaches to the merchandising aspect of pharmacy activities (Appendix 5: Figure 29).

The need to develop an attractive atmosphere for customers is complex and central to what it is to be a pharmacy in this study. Reflected through the OC manifestation that “customer is king”, (Appendix 5: Figure 27) the social and physical atmosphere within the pharmacy is thought to have significant influence over customer retention. These manifestations of OC are complex and dichotomous in nature and reflect the dualism of community pharmacy: being providers of great health advice through having an attractive social environment, patient trust and confidence on the one hand and being innovative health merchandisers on the other (Appendix 5: Figure 27, Figure 29, Figure 30, Figure 31, Figure 32).

Trust manifests in many forms within this study and the development of trust is central to the attainment of a number of VO. The cognitive maps across most cultural dimensions demonstrate complex and non-linear interplays and influences which involve or are underpinned by different forms of trust (Appendix 5).

Trust between pharmacy team members, trust between pharmacy staff and customers and trust between pharmacy staff and other healthcare providers all influence the attainment of each VO in different ways (Figure 18). Participant dialogue suggests that trust is a complex manifestation of four-wall OC and that it is also a significant influence within co-production and co-consumption of OC as outlined later in this section.
Figure 18: Cognitive map of the central importance of trust
Trust between pharmacy staff

Trust between pharmacy staff influences the VO including: attraction and retention of customers, better health outcomes, efficiency and safety. Trust between staff through valuing roles and valuing each other means customers perceive they are getting the best possible advice and customers then return to the pharmacy. This is supported by the development of a relaxed atmosphere by owners who allow staff to spend time with customers with customers. Staff respond to this, “go the extra mile” for customers, are responsive to individual patient needs and health needs are met, and so outcomes are seen by customers and customers come back based on this. The meeting of people’s needs and the confidential approaches within the free talk-shop environment of the pharmacy facilitate the development of customer trust. The values that “money may not change hands”, and “we are not rip-off retailers” helps to gain customer confidence and trust and means customers value staff and will come back. In this manner internal staff trust influences the development of trust between staff and customers.

Efficiency is mediated through better internal pharmacy teamwork, in part due to trusting other staff “to know what’s going on” and in part through “owners recognising staff, trusting staff and treating them well” thereby building up individual confidence, trust and self-belief by staff. Safer practices and the trust between staff are expected to lead to better health outcomes. The provision of the correct medicine impacts on patient safety and better health outcomes (as VO) and staff suggest that this is contingent upon trusted triage and referral amongst themselves. Staff also suggest that customers feel confident with referral on to experts within the pharmacy, based on the trust between team members which influences the retention of customers. Staff note that the “right decisions can only be made and the right advice given through trusting each other in the pharmacy to do a good job.” Staff autonomy and decision making underpinned by trust affords patient convenience and staff perceive that customers come back as a result.

Trust between pharmacy staff and customers

This form of trust influences the attraction and retention of customers, business viability, and better health outcomes. Staff believe customers feel more comfortable in a pleasant atmosphere, developed through trust amongst staff and this in turn assists the development of trust between staff and customers. Levels of trust between customers and staff in part determines whether customers will disclose full information in order to “get
the right product or advice” and thereafter “whether they will take on that advice or not, whether they will listen and whether they will visit the pharmacy as first point of contact.” This is thought to influence both better health outcomes and business viability. Trust is built with customers through “not overselling” and the pharmacy being a confidential free talk-shop.

Trust between pharmacy staff and other health providers

This form of trust mediates co-responsibility of care and provision of holistic health care with the expectation by pharmacy staff that better health outcomes will be achieved. This is mediated through trust developing between pharmacy staff and other providers. This is mainly through legitimacy which emerges through external relationship development by the pharmacy, an internal sense of purpose within the pharmacy and support by other health care providers to achieve this.

We meet need; we provide the right product advice or we refer on

The attainment of VO is contingent upon OC that manifests through great service provision by meeting needs and providing the right product advice. This belief was consistent across most of the case sites and emerged from dialogue relating to multiple cultural dimensions (Appendix 5: Figure 28, Figure 29, Figure 30, Figure 31, Figure 32). Meeting needs manifests as “giving them (customers) what they want, within professional boundaries” and “customers will be happy with what you give them.” Helping customers “keeps them loyal” and they return to the pharmacy for further advice or to ask questions. The staff expectations of this are threefold; better health outcomes, business sustainability and job satisfaction through the notion that “if customers are happy with you, you will be happy and vice versa” (Appendix 5: Figure 27). The pharmacies were deemed by staff to provide the right advice and as such “are not just pill counters” nor “just a supermarket or a big mall pharmacy.” Through provision of the right advice, staff felt that people will come back.

Customer buy-in has a significant influence on attaining better health outcomes

Customer buy-in has significant impact on attaining better health outcomes and is mediated by a number of cultural manifestations which influence the orientation of staff towards customer and vice versa. Buy-in is represented within the dialogue about the influence of customer relations, valuing each other and the team, trusted behaviour and
the embracing of innovation (Appendix 5: Figure 27, Figure 28, Figure 29, Figure 30). Buy-in by customers/patients is variously described in terms of behaviour change (Appendix 5: Figure 27), being more likely to take on advice (Appendix 5: Figure 28, Figure 30) and to embracing holistic help (Appendix 5: Figure 29).

Staff being valued and therefore being happy and confident influences the atmosphere for staff interaction, customers feel comfortable within this atmosphere and trust develops. The trust and level of comfort within the pharmacy determines whether customers take on advice or not. If customers are comfortable with the atmosphere and trust staff then customers will listen. As such, there is customer buy-in which staff believe influences the attainment of better health outcomes. Within this atmosphere, staff believe they can counsel properly and suggest they will be “happy” in providing advice and pharmacy customers receiving the advice and trusting it. Staff believe this helps to optimise patient medicine use and the attainment of better health outcomes. Through tailoring to individual needs and “going the extra mile,” customers get what they want, “customers are happier”. They take on advice and subsequently know it works (the advice) and staff believe that customers come back as a result.

Through being comfortable and having trust in the pharmacy, customers will visit the pharmacy as a point of first contact for health care (and often to come and see a specific staff member) contributing to the ongoing attainment of better health outcomes. Being able to spend time with customers is seen by staff as an important influence on the attainment of better health outcomes.

A range of leadership orientations

Development of a relaxed atmosphere and good harmony in the pharmacy helps gain patient confidence and trust (Appendix 5: Figure 33) but also means that customers think the pharmacy is effective (Appendix 5: Figure 31). The relaxed atmosphere is contributed to by staff happiness and contentment which is influenced through leaders being open-minded, valuing staff and allowing staff to spend time with customers. Staff will “go the extra mile” and gain customer trust and they are believed to come back as a result (Appendix 5: Figure 33).

Managing workplace boundaries, and defining and clarifying roles, allows the development of multi-level skills sets and internal referral amongst staff. This is thought to result in more products being sold through utilising individual merchandising skills.
Staff believe this assists in financial viability. A similar notion applies to pharmacists where owners that set academic challenges and develop a learning culture believe this contributes to organisational viability through staff being better able to answer doctors’ queries and to interact with them, improving the credibility of the pharmacy and its legitimacy as a professional provider organisation (Appendix 5: Figure 33, Figure 34).

Efficiency is contingent upon leadership orientation which varies by pharmacy site and influences this VO in different ways. The invisible leader with no delegated authority in place results in a “feeling of sinking due to leadership by committee” where there is lack of decision making and uptake of new ideas. Staff feel lost, have no direction, no motivation and there is a degree of idleness, especially among technicians and retail staff. The staff in this site suggest that “the work still gets done,” but not as efficiently as it could be. This is countered by the invisible leader being involved at a higher political level, understanding the changes in the pharmaceutical marketplace, particularly about the list of funded medications, and so minimising mistakes regarding stock management. Also being a systems designer, staff “do it by the book” and believe more time can be spent on patient rather than stock oriented issues through this leadership style. The owner as worker, as visible day-to-day direction setter, pulling their own weight and leading by example has an influence on efficiency through the leader listening, opening communication, staff being content, and working better as a team (Appendix 5: Figure 33). Owner as leader, supporting self-management is founded on the notion of owners who believe “if the team is working together then leadership is not going to make much difference; leadership is just there.” This was the belief of owners in two case sites. By empowering teams of individuals to self-manage and make decisions, people will self-manage as they “know how the boss thinks” (Appendix 5: Figure 33).

Staff being valued breeds happiness and harmony; an attractive atmosphere to work in

The attainment of VO is contingent upon OC that manifests to include a high degree of freedom and autonomy is gained through adequate numbers of well skilled staff; a better atmosphere for working. Confidence and self-belief is seen to build happiness, contentment and trust amongst staff and they feel safe and secure with each other. In this way staff are retained (Appendix 5: Figure 27, Figure 28, Figure 33). Customer retention is influenced through customers being comfortable with the atmosphere in terms of both taking on board advice and shopping.
Multi-level skill set, structured triage and referral:

The attainment of VO is contingent upon OC that manifests as staff having valued skill-sets regardless of levels of work within the organisation (Appendix 5: Figure 29, Figure 30, Figure 31, Figure 32, Figure 33). Pharmacy staff believe that this allows internal referral of customers within the pharmacy from one staff member to another. External referral to other health care providers is also possible with such arrangements. Staff highlight “we know our limits and can refer on.” There are few hierarchies within most of these case site pharmacies in terms of levels of work being more valued than others. Relative autonomy and freedom was afforded through the value placed on each other within the pharmacy team.

The better the teamwork the more efficient the pharmacy

The attainment of efficiency is contingent upon better teamwork, mediated by staff being “happy” through the pharmacy having good harmony, and being a “good place to be” (Appendix 5: Figure 28). Confidence and self belief breeds “happiness” and contentment and is thought by staff to contribute to better teamwork (Appendix 5: Figure 33). Staff suggest that leadership has an effect on teamwork and when owners recognise staff, trust staff, and treat them well, the confidence and individual belief gained from this is expected to assist them to work better as a team (Appendix 5: Figure 33). Staff note that they will be “more likely to be hardworking, doing what they should be doing and getting on board with improvements and workflows” (Appendix 5: Figure 33). Effectiveness manifests in this way, as the technical carrying out of prescribed tasks. This improves efficiency as perceived by pharmacy staff. Efficiency is the VO, the organisational endpoint that staff and owners value.

In addition to leadership, staff themselves also influence teamwork. Staff expect better teamwork to result in efficiency which is mediated by: staff being aware of, and valuing each other’s skills sets and referring on, based on trusting each other, communicating and talking about customer issues. When working better as a team, staff believe that there is task alignment with the skill-sets of individual staff members (Appendix 5: Figure 28). According to staff, in order to work as a team “everyone needs to get along, and that without stress and unhappiness in the workplace – things just get done, flow of work is better, the pharmacy runs smoother, runs easier.” Being effective at carrying out these tasks, results in what staff value as an organisational endpoint – efficiency gains –
contingent upon effectiveness and a cultural orientation underpinned by a focus on having systems and processes in place (Appendix 5: Figure 33).

**Fostered learning; an orientation toward academic challenge**

The attainment of VO is contingent upon OC that manifests as a learning environment fostered by leaders within most of the case site pharmacies (Appendix 5: Figure 28, Figure 31). Further, these pharmacies contain up-to-date and knowledgeable staff who are of the belief that customers see them as being as knowledgeable as doctors, and skilled and confident. There is the perception by staff who are empowered through training and support that they feel more able to demonstrate improved practice thereby improving better health outcomes (Appendix 5: Figure 28).

**The resolver of problems: pharmacy as the convenient one-stop shop**

The attainment of VO is contingent upon OC that manifests as the pharmacy being perceived by customers as a “one-stop” shop (Appendix 5: Figure 28, Figure 29). Convenience is afforded for patients who have problems with their medication regimens. This is based on individual staff members being able to make decisions as experts within the scope of their work, regardless of seniority (Appendix 5: Figure 30). The pharmacy advocates for patients and resolves medication related queries in conjunction with doctors while patients wait in the confines of the pharmacy (Appendix 5: Figure 30). Patients do not have to return to the doctors’ surgeries although pharmacies are quite within their rights to get patients to do so. This is contingent upon having prescriptions changed with ease by the pharmacy through access to prescribers (Appendix 5: Figure 34). Staff also suggest that “breaking the perception of not just being a pill counter but being a health professional” is aided through problem resolution and the customer thinking “they can help me” (Appendix 5: Figure 29). In this way pharmacies are seen as compassionate helpers. It is the perception of staff that this will influence better health outcomes, but also that customers will come back as a result.

**Perceptions about time: pharmacy structured as a free and confidential talk-shop, an advocacy organisation**

The attainment of VO is contingent upon OC that manifests through pharmacy staff and owner’s perceptions that time is free and advice is free. In all of the case site pharmacies, staff structures are in place, that allow staff to spend time with customers. This notion is reflected by all owners of all pharmacies studied. As such, pharmacy becomes a hub for
discussion – a free talk-shop (Appendix 5: Figure 27, Figure 29, Figure 30, Figure 33). Talk is often not related to issues regarding medication and in some cases not even about health. In this way pharmacy is a form of community hub, a social agency. The fact these services are provided free (apart from the need to sell other retail products either in conjunction with the advice or to sustain this free service provision) does not mean they are not valuable. The opposite is the case, with staff perceiving the free talk-shop to be very important for the attainment of VO.

Customer relations, leadership and staff management, and the embracing of innovation are the cultural dimensions under which dialogue about the talk-shop arises (Appendix 5: Figure 27, Figure 29, Figure 33). Spending time with customers (particularly new customers), talking to them and communicating, means staff make sure “things are done right”. Trust is built up through trusted behaviour and through valuing customers. This is reflected in the provision of “the right information”. If this doesn’t occur, customers won’t come back (Appendix 5: Figure 27, Figure 33). As a result staff suggest that there is two-way listening, the right information is gained, the right product sold with subsequent retention of customers (Appendix 5: Figure 33).

Despite pharmacy case sites being free and confidential talk-shops, owners and senior pharmacists highlight that there is no money in dispensing and so the retail model is dominant (Appendix 5: Figure 29). This is tempered by the assumption that “professionalism must triumph over finances”. Staff believe that part of this is spending time with customers and this helps make the business sustainable.

**Pharmacy as a safety net; safety over speed**

Customers receiving the right product and/or service, influences safety outcomes for the pharmacy and its customers. This is manifest in part through the values of “being a responsible retailer and selling the right product” (Appendix 5: Figure 33).

Being a responsible retailer relies on having time to spend with customers through the leadership ensuring there are adequate staffing levels and the right mix of people. Through valuing each other and the team, practices are expected to be safer. There is improved patient welfare if staff can be relied upon, and when there is trust amongst the staff. Pharmacy is a safety net through the provision of accurate advice by triaging to determine needs and not to “fob patients off” (Appendix 5: Figure 32). Pharmacy as a free talk-shop (and owners permitting this) allows access to the right information from
patients through two-way listening so the right advice can be provided (Appendix 5: Figure 33).

The place of money: being a responsible retailer

The attainment of VO is contingent upon OC that manifests through beliefs and values that “money needn’t necessarily change hands” (Appendix 5: Figure 32), at least not the first time customers visit the pharmacy. The belief that “professionalism reigns over money” (Appendix 5: Figure 29) and “we are not just a supermarket or a big mall pharmacy,” is tempered by the underlying taken-for-granted assumption that “we are after all a business, just not a supermarket style business” (Appendix 5: Figure 27). There is an understanding that community pharmacy is not a place to oversell inappropriate add-on products (Appendix 5: Figure 30), which patients purchase in addition to prescription medicines. There is a place for some products under this scenario, but not all and not with every prescription. Target setting for sales is not commonplace within any of these pharmacies. Staff believe customers trust these values and feel comfortable to return to the pharmacy.

Community pharmacy is a legitimate

The attainment of VO is contingent upon OC that manifests through the belief by staff that community pharmacy is a legitimate service provider, from their viewpoint - in the minds of the customer. Pharmacy staff also believe they are community focussed, the builders of relationships and who are trusted as professionals. These features are thought to create customer buy-in. Role recognition and being integrated, part of the whole, signals the mandate for co-responsibility of patient care with the wider primary care team which occurs in some of the case site pharmacies (Appendix 5:Figure 34). Through being legitimate, pharmacy staff believe customers see the community pharmacies as the first health provider to seek help from and often the first point of health care contact for the community.

Various forms of ‘access’

Achieving VO is contingent upon access by customers to the pharmacy and access to other health services via the pharmacy. Patient satisfaction is contingent upon access to prescribers by pharmacy staff through a focus on external integration which is facilitated by “being good relationship-makers.”
The attainment of better health outcomes is also contingent upon access to clinical information and other providers. This is expected to result in rapid and appropriate treatment. Access is afforded when trust develops between the pharmacy and other health care providers and the pharmacy “gets taken seriously” (Appendix 5: Figure 34). This legitimacy occurs through role recognition by other providers, empowerment of the pharmacy by GPs, a lack of patch protection of professional territories by other health care providers, and through pharmacy staff and owners “thinking about how the activities of pharmacies may affect other health care providers.”

Safety is another VO which is contingent upon access to the right information, and in the case of safety outcomes, information from customers themselves. This is contingent upon the pharmacy being a free talk-shop, and there being two-way listening between pharmacy staff and customers.

The notion of access is central to the attainment of several VO and the interplays described illustrate and support the notion that access influences outcome through a complex series of influences.

A cultural dichotomy – retailer and health care provider

Through the language of pharmacy participants, cultural orientation within these case site pharmacies appears to manifest as a dichotomy of retailer and of health care provider. Examples of this include:

- We are here for the customer/patient/community – we help.
- We are not a rip off business we are responsible health retailers.
- First stop pharmacy, but we know our boundaries and will ‘refer on’.
- The pharmacy advocates for the customer and patient i.e., convenient one-stop shop.

Despite case site pharmacies being chosen as exemplary sites, which were community-based and attempting to align with health policy and funder-planner stakeholder expectation, there were a range of dual roles which signify the potential for tension in the internal and external identity of community pharmacy including:

- The position of health care provider versus retailer.
- Product and retail innovation versus service innovation.
We are a business you know: “just not a supermarket business” – pharmacy is set up to spend time.

Pill counter versus medication counsellor.

The cognitive maps of the contingent influence of OC on VO demonstrate this dualism of both OC manifestation and outcome. In particular, the customer relations cognitive map (Appendix 5: Figure 27) shows the manifestations of OC and influences thereof split between being a business and being a health professional organisation. An orientation towards customer relations being “integral to your business” and the notion that “customers pay the bills and we want them to come back” exemplifies this. This aligns with the belief that “customer is king” which manifests through this same cultural dimension as “try to keep them onside” and “give them good information,” advocate for them by “calling the doctor and resolving queries” for them. Helping customers keeps them loyal and they return to the pharmacy to ask questions and to get advice. This has dual outcomes. Firstly, it influences the attainment of better health outcomes and secondly, a sustainable business through customers returning. There are many other examples that demonstrate the subtle dualism of the OC and expected outcomes in these community pharmacies (Appendix 8, Table 22)

The co-production of OC within each of the eight cultural dimensions

Four-wall OC is influenced by processes of mutual shaping of OC between staff, customers, and other health care organisations. External actors contribute to shaping the ways in which pharmacy staff members and owners think and act. The four-wall OC provides an atmosphere that is conducive to the development of trust between staff members and customers, the provision and acceptance of advice with an expectation from staff of customer retention and better health outcomes.

Organisational members have been considered consumers of culture (Linstead & Grafton-Small, 1992) whilst the findings of this study suggest that OC is both co-produced and co-consumed by organisational members and those external to the four-walls of the pharmacy. Cultural co-production emerges as an influence across all of the eight cultural dimensions in this study. Cultural co-production featured in dialogue about focus on external integration (Appendix 5: Figure 34) but there was relatively less discussion toward cultural co-production under the dimension embracing innovation (Appendix 5: Figure 29).
The manner by which cultural co-production emerges within the discussion of each cultural dimension is supported by the following section which is synthesised from the cognitive maps generated from the interview transcriptions as dialogue with staff (Appendix 5: Figure 27 to Figure 34). The dimensions of OC were used as anchor points for discussion and so there is some overlap in the content of dialogue about co-production across the eight dimensions of OC.

Dialogue about co-production within the ‘customer relations’ dimension of culture

Co-production of OC has an influence on attaining the following VO within this dimension: better health outcomes, job satisfaction and attracting, engaging and retaining customers (Appendix 5: Figure 27). Participants suggest that cultural co-production influences better health outcomes through the following mechanisms. If staff are valued by other staff and/or the pharmacy owner then they are “happy.” Relationships with customers will then be “happy,” customers will feel comfortable and a level of trust will develop between the pharmacy staff and the customer. Participants perceive customers as fun and friendly and interacting with happy customers makes for a more pleasant work atmosphere for the staff. As a result, staff are more content in their workplace. Pharmacy staff also believe that within such an atmosphere customers are more likely to listen to what is said and to visit the pharmacy first. There is a feeling amongst staff that when customers listen, pharmacy staff are able to counsel them properly. As such, staff feel they would be “happier providing advice to these customers,” meaning the more active provision of advice to customers and the more receptive the customer will be. The result is improvement of customer buy-in to health behaviour change through optimising their medicines use, and there was the belief by staff that customers will have better health outcomes because of this.

Cultural co-production was also found to influence how customers are attracted and retained. Staff suggest pharmacies that are set up to spend time with customers influences in a positive way whether effective communication takes place between both staff and customers. The pharmacy then becomes a “free talk-shop.” This phenomenon of pharmacy as central hub for discussion which may or may not include medicines related talk, is part of the perception by staff that time is a free commodity for them and that customers feel the same way. This seems to contribute significantly to the atmosphere within the pharmacies, and staff talk about this on a repeated basis. Staff also highlight they “will go the extra mile for customers” and customers will promote pharmacies in
general. Customers are believed to promote specific pharmacy services to other customers. They highlight what can be done for customers, over and above the ‘brown paper bag’ scenario of medicines receipt without counselling. In this way, staff believe that customers will be informed and suggest that customers will know pharmacists are as knowledgeable about medicines as doctors. Whether patients are attracted back to the pharmacy is deemed in part to be dependent on whether the patients are receptive to these services, and relates to trust and legitimacy.

With the pharmacy being a free talk-shop, there is the belief by staff that over time customers become good friends with pharmacy staff and vice versa. As such, a sense of family and community develops between the pharmacy and customers, and with the development of trust comes customer retention. The needs of customers and their expectation of service delivery also influences levels of customer satisfaction attained. Staff suggest customers can be given what they want, within professional boundaries, but that service is required to match need in order for customers to return to the pharmacy for advice. Additionally, customers need to be receptive to the services provided by these staff in order for there to be buy-in and ultimately retention of the customers. This two-way determinant of outcome falls under the umbrellas of cultural co-production and co-consumption.

Job satisfaction emerges as a VO in its own right within the discussion how the customer relations culture dimension might influence effectiveness. However, job satisfaction appears to be less dominant as a VO than customer retention and better health outcomes. Job satisfaction is influenced by the co-production of OC, through staff feeling rewarded in their relationships with customers and customers valuing them. The co-production of OC results in higher levels of job satisfaction and also drives staff to do better.

Dialogue about co-production within the ‘valuing each other and the team’ dimension of culture

The notion of co-production of culture is well demonstrated in the cognitive map of this cultural dimension (Appendix 5: Figure 28). Customers deal with the staff member in the pharmacy who knows most about a particular area and therefore staff believe customers see the pharmacy working as a team. This influences the individual rapport which develops between pharmacy staff and individual customers. Staff are of the belief that this helps the development of customer confidence. Customers pick up on this rapport and are confident of advice provided, and are also perceived to believe that the pharmacy
is effective being described by staff as great service being provided and that “things just
get done.” This is how effectiveness manifests in this study: as the carrying out of tasks
denoted technical performance (see Theoretical proposition 1). Staff expect that the result
will be improved customer satisfaction, to the point that customers are described as
advertisers, promoting the pharmacy to family and friends. This “advertising” and
referral to other customers, provides some realisation for staff of where their new
customers are coming from. This makes staff aware of the fact that more people are
returning to the pharmacy.

Staff members appear to be comfortable to refer within the pharmacy team, across all
levels of work (pharmacists, technicians, pharmacy assistants). Staff suggest that this
means customers feel they are getting the best possible advice from the right person
within the team. In this way, customers know they can trust the individual they are
dealing with. Over time customers and individual staff members develop relationships
which facilitate customer retention. There is the perception that customers feel important
on account of all staff in the pharmacy being informed about them. Staff remain informed
about individual patient cases, through the valuing of different roles and the
communication amongst staff. As a result, customers trust staff because staff know what
is happening to individual patients. As a consequence the pharmacy appears more
efficient to customers. Staff convey that this is rewarding and it keeps them going, which
improves staff retention as a VO. The resultant continuity of experienced staff available
to customers reinforces the efficiency of the organisation which is also a VO influenced
by the cultural dimension: valuing each other and the team.

The fact that customers are perceived as more likely to take on advice by having a better
relationship with pharmacy staff comes through consistently across case sites. Customers
feel valued and staff feel that customers value them. As a consequence customers are
deemed more likely to take advice. The perception by staff is of healthier customers and
better health outcomes for the community as a whole. This highlights the perception by
staff of the customer view that having an atmosphere that is conducive to the provision of
advice is at least as important as the quality of the advice provided.

Customers are taught that to be safe, things take time; the management of customer
expectation helps to change the behaviour of customers so that they are not tapping their
fingers on the counter waiting for their prescription. There are safety checks in place and
staff are not feeling pressured to get things done, thereby compromising safety.
Dialogue about co-production within the ‘embracing of innovation’ dimension of culture

There is relatively less discussion of cultural co-production in relation to the embracing of innovation (Appendix 5: Figure 29). Staff highlight that patient perceptions of “they can help me” will develop from “breaking the customer perception that pharmacies are not just pill-counters.” This relies on OC manifesting through the staff belief that “professionalism must triumph over financial matters and money.” Staff also believe that customers will come back if they are helped and if their needs are met. Further, pharmacy staff highlight that customers will embrace advice if they feel they are being helped and as a consequence there will be improvement of adherence to treatment regimens and ultimately better health outcomes for individuals and communities. Having demonstrated the worth of pharmacy and shown what can be done within community pharmacy through great service provision and being innovative (including retail innovation), means customers will come back. Customers are seen to be loyal by staff and by customers coming back, the pharmacy staff as a whole feel rewarded. Customers contribute to this feeling through interaction with staff, and staff retention is maintained.

Dialogue about co-production within the ‘trusted behaviour’ dimension of culture

Much of the discussion with respect to the cultural dimension ‘trusted behaviour’ relates back to customer relations, which demonstrates the close association between these two dimensions (Appendix 5: Figure 30). Pattern matching exercises also highlighted that these two dimensions were amongst the most typical cultural dimensions across all of the pharmacies (Appendix 4). Staff reported that if customers get what they want, then they will take advice and return to the pharmacy. If staff help the customers to select the right product, tailor service to individual needs and go the extra mile the customer will be getting what they want. Customers will “feel happier” and will be more likely to accept and take on board the advice given. The staff believe that customers perceive advice or service provided as “being rubbish” then the customers won’t come back. Customers seek staff members that they have developed a rapport with when they come into the pharmacy. There is the perception that customers listen to pharmacy staff that they trust, but that they are also listened to by pharmacy staff. Customers return to the pharmacy as a result of the relationship developed with a particular person in the pharmacy. Through this, organisational members believe that they will “get the right result” for the customer – through the development of trust and by customers not perceiving the pharmacy to be a retailer based business.” Between them, staff and customer will then get the right result.
The perception that pharmacy is a confidential and free talk-shop appears to contribute significantly to development of trust, getting the right result and customer retention.

The suggestion is made when customers know advice provided for them in the past) worked, customers are described by staff as returning to the pharmacy “feeling happier and better.” It is thought as a result that customers will also be prepared to take any future advice given. Under this scenario, patients disclose full information – with access to the patient and an understanding of their needs only being possible if patients make this information available through full disclosure to staff within the pharmacy. Disclosure of information and the subsequent generation of patient trust based on this is influenced by the demonstration of ethical behaviour by pharmacy staff through processes that reflect this type of behaviour. Patient disclosure is perceived to influence the treatment that patients receive from staff. There is a realisation that the pharmacy is better able to help patients if both staff and patients assist with developing open two-way communication channels. As a result staff expect there to be better health outcomes for patients.

Dialogue about co-production within the ‘free-thinking, fun and open to challenge’ dimension of culture

There is the notion that co-production of OC occurs through having a multidisciplinary learning culture, where the whole primary care workforce can learn together (Appendix 5: Figure 31). The influence is through other professionals helping to improve what pharmacy is good at and this emerged as a significant influence on OC in two of the six sites. By working as a team, as one workforce, significant sector wide efficiency gains are expected. This is interpreted as external co-production of culture: through interaction with external actors other than customers including other primary care providers and representatives from health funding and planning organisations.

Pharmacy staff highlight that being at work because you want to be at work, being strong advocates for the patient and listening to customers’ talk about their wants and needs, means that in addition to customers listening to the advice provided, pharmacy staff are also provided with feedback from customers. Customers being put at ease, feeling secure, and knowing staff are willing to help them improves the identity and reputation of the pharmacy and therefore improves customer attraction and retention.
Pharmacy staff expect better health outcomes to be gained through customer buy-in of advice and associated improvements in patient adherence. Customer buy-in is facilitated by having an atmosphere that is conducive to instilling customer confidence and also through the provision of what staff describe as “great service.” Great service manifests as technical performance (see Theoretical proposition 1) and customers think the organisation is effective because of what staff call “a happy environment” which also depicts co-production of OC at the customer level. Co-production of OC goes beyond simple one-way interaction between the internal bearers of culture (the pharmacy staff) and external actors to include shaping of each by the other.

Dialogue about co-production within the ‘providing systematic advice’ dimension of culture

Staff suggest that the provision of systematic advice means customers value them and the free talk-shop approach. The cultural orientation of “money doesn’t always need to change hands,” means that there is a perception of no pressure to sell or meet financially driven targets within these pharmacies (Appendix 5: Figure 32). The perception by customers of staff “not just being here to sell” applies and the pharmacy becomes a free talk-shop. There is the perception from staff that this is highly valued by customers and so it remains as a dominant orientation of OC. By customers valuing staff they feel comfortable to return. Customers are attracted and retained, and in a sense they know (or at least staff perceive) that the pharmacy is not aiming to “just get money from them.”

There is a difference between being a free talk-shop and the taking of a systematic approach in the provision of advice which is highlighted by the following patterns. Customers trust the pharmacy staff with whom they have better relationships. Trust develops through rapid problem resolution, taking confidential approaches and staff “going the extra mile” for customers. Customers perceive pharmacy staff as knowledgeable. This occurs through staff taking consistent approaches to the provision of advice and appearing to know what they are talking about. This gains the confidence of the customer. A reputation of pharmacy as expert knowledge bearer develops. Staff believe that customers value them and in return they come back to the pharmacy – they are attracted and retained.
Dialogue about co-production within the ‘leadership and staff management’ dimension of culture

The pharmacy developing as a free talk-shop is co-produced between pharmacy staff and the customers (Appendix 5: Figure 33). Members of staff note that people (i.e., customers that visit the pharmacy) just want to talk, to chat. Further, pharmacy members believe that customers expect this and they suggest that the owners of the pharmacies think about this and set the pharmacies up structurally to support this. This seemed to be consistent across all the pharmacy case sites and two in particular had a focus on employing pharmacists over pharmacy technicians to allow this.

Through such arrangements staff describe a high level of autonomy and freedom with respect to how they spend their time within the day-to-day running of the pharmacy. Owners develop the pharmacy structure and have adequate staff to allow enough time for interaction with customers. This contributes to a relaxed atmosphere where staff feel “they are in a better position to gain customer confidence and trust,” thereby influencing the attraction and retention of customers.

Dialogue about co-production within the ‘focus on external integration’ dimension of culture

Health outcomes and patient satisfaction are the two VO influenced by the co-production of OC through interaction with external actors, mainly being staff from general practices (Appendix 5: Figure 34). Interacting with GPs through being good relationship-makers is what staff see as the way to gain external respect. Legitimacy and mandate flow from this and staff in many pharmacies highlight that they have better access to prescribers as a result. They are therefore able to help resolve prescription issues for customers and can have prescriptions changed without delay. Several owners highlighted that having a good relationship with the GPs and the wider team results in the development of trust. Role recognition and mandate flow from this. There is no patch protection, and staff talk of patients receiving a holistic total patient solution. There was discussion about the GP empowerment of pharmacy and also the influence pharmacy can have on general practice: fewer boundaries, pharmacy is taken seriously and multidisciplinary team members support each other to go hand in hand in dealing with patient issues. There is an improvement in access to services for patients and health professionals. The development of multidisciplinary groups was expected to influence better practice, having benefits for individuals and the population at large.
Summary of patterns of cultural co-production within the contingent relationship

The preceding section demonstrates the complexity of cultural co-production and reflects the challenge in reducing these interplays to a set of dominant relationships. The inherent danger in doing so is a loss of the ‘richness’ of the analysis and interpretation. However, to make sense of these relationships it is necessary to look for patterns which help to describe the process and influence of cultural co-production on the attainment of VO across the dimensions of culture.

The notion that the better the atmosphere (or environment) then the better the advice given, is dominant within the dialogue about cultural co-production. Pharmacy owners, pharmacy staff and customers all influence the development of an atmosphere conducive to the provision of advice. There is the perception by staff that ‘better’ advice is provided under such conditions and that customers also believe this.

The development of an environment conducive to providing advice and conducting custom has been outlined in a previous section. The facets that are important to cultural co-production include:

- The relationships and interaction between staff.
- The orientation of staff toward customers and the free talk shop.
- The relationships and interactions between staff and customer.
- The orientation of customers toward staff.

Relationships between staff

Reliance on and trusting of other staff, having a triage system and the opportunity to refer internally because staff at all levels who are experts in their area (multi-level skill-sets) provides the perception of a skilled workplace. Customers know that they can trust these individuals and they (customers) perceive that they are being provided with the best possible service and expertise. Customers engage with this.

Staff orientation towards the customer

Staff go the extra mile for customers, they take time, they adopt confidential approaches and attempt to achieve rapid problem resolution for customers. This reflects a dominant orientation toward the customer. This influences the development of trust between
pharmacy staff and customer and customers value staff as a result of this. When customers feel valued, pharmacy staff also feel valued.

*Customer orientation toward the pharmacy*

Customers influence the four-wall culture of the pharmacy. Customers sense the rapport between staff, and demonstrate confidence in the advice they have received. Customers value pharmacy staff because they meet needs, and they value the free-talk shop and so this becomes the dominant cultural orientation. The discussion is two-way and pharmacy staff are provided with the customers feedback. Customers will embrace advice and will buy-in to the process if they feel they are being helped, or that their needs are being met. The perceived meeting of need becomes a dominant cultural orientation within the pharmacies. Staff note customers are loyal, they return and staff feel rewarded by this. This further highlights customer retention as a VO. By customers valuing staff they feel comfortable to return to the pharmacy.

*Co-production with other health care organisations*

True cultural co-production with health provider organisations occurs less commonly, but did manifest in two of the six case sites. There was interaction between the pharmacy and other health care providers in the other four sites but not to the extent that the OC of the pharmacy was perceived by staff to be influenced. In the two sites where co-production of OC did occur, the pharmacies were well integrated within the wider multidisciplinary team. The way the pharmacy OC manifested was influenced by GP practices. This was mainly through the influence the practices had on how the pharmacy owners thought and acted and the influence the owners had at the level of the multidisciplinary team. In one case site, the pharmacy owner felt she was dragging the multidisciplinary team out of their professional silos. In the other case site, the pharmacy owner was influenced by the general practice and associated primary health organisation to be more patient centric, as well as more interactive with the primary care team. The owner then set about involving his staff in activities that linked more directly with the primary care team. Over time the general practice began organising new practitioners to visit the pharmacy to be oriented. Each organisation had an influence on the other.
Effectiveness manifests as technical performance within the contingent relationship

The generation of cognitive maps from interview data allows exploration of the relationship between OC, OE and the emergent VO construct. It was expected that participants would select dimensions of OC and then identify specific dimensions of OE that dimensions of OC would have some influence on; and to then explain in what ways that might occur. Unexpectedly, and despite extensive testing and piloting of the interview schema, the dialogue did not flow in this manner and to some extent this supports the context-bound and socially constructed nature of these organisational constructs. They often emerge only through full interviews with the study cohort.

VO emerged to supersede OE as a descriptor of effectiveness (see Theoretical proposition 1). The dominant components of the VO construct include: customer retention, better health outcomes, and financial viability. Other components for which there was less discussion include: efficiency, client safety, and staff satisfaction and retention. VO is different from OE (see Theoretical proposition 1) and is given emphasis (i.e., it is valued) in the discussion with participants and is therefore important. VO are the organisational endpoints or outcomes and so OE becomes the intermediary construct, sitting in the discussion between cultural orientation and the attainment of VO. OE manifests as technical performance, the carrying out of prescribed tasks.

The fact that the multi-constituent OE construct manifests as something different from the original conception within the theoretical framework is introduced as one aspect of Theoretical proposition 1. The distinct nature of OE and VO as separate constructs is an important proposition from a construct identity viewpoint, particularly when developing the theory. It also has implications for describing the contingent and recursive relationships where OE manifests as technical performance and is distinct from VO within both the contingent and recursive relationships. OE manifesting as technical performance is supported by a cultural orientation toward procedure and process. There is overlap (partial conflation) between cultural orientation (the organisational culture) and effectiveness (the OE construct) as technical performance, which is outlined more fully in Theoretical proposition 4. The attainment of VO is contingent upon OC as dominant in this partially conflated construct and OE manifests as technical performance supported by an orientation (OC) towards this. The language used by participants in describing OE is as follows.
Doing what you should be doing

Through an orientation toward customer relations “being effective is doing what you should be doing” thereby gaining customer trust, in order for customers to take advice and to achieve better health outcomes. Valuing each other and the team also influences whether staff are doing what they should be doing and the influences of that. If staff are valued, they are happy and content in their relationship with customers; customers are fun and friendly. Customers feel comfortable in the pharmacy, they trust staff, will listen and can be counselled properly. There is buy-in (or not) and this helps optimise medicines use and health behaviour change. “Being effective is the pharmacy doing what it should have been doing to achieve these better health outcomes.”

Staff are more likely to be “doing what they should be doing and getting on board with the goals of the pharmacy if the leader actually takes over and be the leader and communicate and help the pharmacy to work effectively, to be smoother, so things fall into place.” This effectiveness is influenced by leader support and trust, building confidence and individual self-belief. In this way individuals work as a team, “staff will be good to the owner, to customers to the community.” Workflows are expected to improve and the pharmacy is more effective through “staff doing what they should be doing.” In terms of VO outcomes this is expected to create a more relaxed environment in which the pharmacy staff are able to gain patient confidence and trust which influences customer retention. These influences/interplays exemplify the intermediary nature of effectiveness – sitting between cultural orientation and VO.

The place will function, it just flows, it just runs smoothly

A leadership focus on system development influences organisational functioning and therefore effectiveness. By having systems and processes “developed democratically this allows staff to provide feedback and input into systems change.” Equally, if the systems and processes are developed by leaders “then staff are able to do it by the book everyone has their job but can step in for each other.” In this way “the pharmacy will run effectively, the place will function well; it just flows.” “Staff will be happier to work in an effective pharmacy, to work within processes they know and understand” and this is believed by staff to contribute to their retention. In some instances the result is a perceived improvement in efficiency as an organisational endpoint – a VO.
Effectiveness is also denoted as “things flow better” particularly when OC manifests in terms of trusted behaviour. Things flow better through the influence of trusted relationships. Running an “effective organisation requires good people that trust each other and customers need to trust staff.” Although “being a health professional means there is an instant gaining of trust,” the development of trust goes deeper than that and is influenced by the sense customers have of the trust between staff as well. Effectiveness describing “things flowing better” is also perceived to result in improvement of organisational efficiency as the endpoint. Effectiveness is therefore deemed to be the undertaking of prescribed tasks whilst efficiency appears to be doing those tasks well. This supports the notion that within the contingent relationship efficiency and effectiveness are separate constructs.

**Things fall into place and get done**

The OC dimension, valuing each other and the team influences “things falling into place and getting done”. Staff suggest that “happiness must make it (the pharmacy) more effective.” The “falling into place” is denoted by the systems and the “getting done” denotes technical performance, the doing. In this way pharmacies deliver services that meet customer need. Being great service providers is seen to be effective.

Being valued is a dimension of OC that breeds happiness. “If staff are valued they are happy, confident and work well as individuals or in a team.” They then “strive to do their best for the customer.” By staff “going the extra mile” they provide better service for customers, “things fall into place and get done.” The flow of work is better, “the pharmacy runs smoother, the pharmacy runs easier” and “great service is provided.” This influences efficiency as a valued endpoint, but also attracts and retains customers through improved customer satisfaction, and through the pharmacy being a convenient place for customers to receive services. For these reasons “if there is stress and unhappiness in the workplace the pharmacy will be less effective as well as less efficient.”

**Being effective is looking at new ways of doing things**

The embracing of innovation “makes things work very well, it makes a pharmacy work so much better, we go the extra mile, provide great service and this means they come back.” This is the language used to describe effectiveness and its influence on the VO labelled customer attraction and retention. “Just being able to provide innovative services is being effective in its’ own right.” Being great service providers is mediated by the
cultural orientation: “you can’t get stuck in what you do.” “Staff bring ideas to the workplace and leaders need to drive these ideas for innovative system change.” This stops stagnation. Staff highlight that “being effective through delivering new services more effectively...by looking at new ways of doing things including adopting technology, this influences the efficiency of the organisation.” They also highlight an influence on safe service provision and both of these are VO in their own right.

It is necessary to “change and test things to be more effective” underpinned by the cultural belief times are a-changin which arises within dialogue about the embracing of innovation cultural dimension. “You either move with the times or close down” which impacts directly on viability. By “keeping up-to-date with changes in the environment now and into the future it influences the way you work and things can be changed and tested to be more effective.” In much the same way the cultural orientation “can’t get stuck in what you do” has influence by looking at new ways of doing things. “This makes things easier or improves a situation.” “Being effective is looking at new ways of doing things.” This is the language used to describe effectiveness. Great service provision means customers come back and in this context efficiency is also a VO.

**Theoretical proposition 3: The relationship between OC and OE is recursive**

**Summary of proposition 3**

Being very good at particular dimensions of OE has a recursive influence on dimensions of OC. Equally, if pharmacies are not very good at certain dimensions of OE, then aspects of OC were perceived to influence the attainment of VO in a less beneficial manner. Being effective influences the four-wall culture of the pharmacies under study. Within the recursive relationship terms such as strengthening, maintaining, reinforcing, positive and negative feedback were the descriptors used by participants to describe the recursive influence of dimensions of OE on OC.

Some influences are common to both the contingent and recursive relationships. This is mainly due to the fact that discussion about the recursive influence of OE on OC progressed to discussion about the influence thereafter of OC on VO. This reflects the recursive influence of OE on OC and the subsequent attainment of VO. This also supports the notion of feedback, and the circular and mutual shaping of OC on OE and vice versa (Figure 19). Support for VO and OE being distinct constructs (see Theoretical
proposition 1) is provided through the emergence of VO as distinct from OE within the discussion about this recursive relationship. The fact that discussion about the contingent relationship follows on from the recursive relationship reflects that OC is the dominant construct.

The recursive influence has a flow-on effect on OC which manifests through the contingent relationship in attaining VO

**Figure 19: The recursive relationship**

**Recursive relationships are complex**

The language used by participants provides an indication of the nature of the relationship. The terms strengthening, reinforcing, follow-on effect, positive and negative feedback are some of the descriptors of the influence of OE on OC.

Being good at having safe and effective workflows, having a community focus, being involved with health promotion and preventative care, and communicating and advocating were the four dimensions of OE where reinforcing, strengthening, maintaining, motivating and improvement through feedback emerged as descriptors of the recursive relationship.

Reinforcing and strengthening of trust and valuing each other as staff occurred through being good at having safe and effective workflows. Participants suggest “It starts with
leadership and therefore you have safe and effective workflows.” There is less chance of making mistakes, trust increases and individuals value each other as they see the contribution being made. Staff believe that being effective at safe and effective workflows “strengthens things” and there is less chance of making mistakes. There is a flow on effect amongst staff: being effective at having safe and effective workflows means “there is no panic, everyone’s happy, there is time, no rush and everyone (staff) knows what they are doing.” They suggest, “we are effective. Pharmacists are smiling, chatting, enjoying themselves and are not hassled. Pharmacists are not recklessly doing stuff.” There is a flow-on effect out to the shop staff whereby staff feel “quite safe and pharmacists trust shop assistants.”

Contributing to the safe use of medicines and being very good at that is a primary goal of community pharmacy, and services and systems are wrapped around that. There is feedback into an improvement process and staff suggest “it is motivating to know things are being done right.” By being effective at contributing to the safe use of medicines there is a cyclic reinforcing: “the more effective you are at this, the better you are going to do in the future.” Staff suggest that “by trying to do it more effectively you are thanked and valued by the customer. This motivates you to do better. Feel good and do better, do better and feel better – there’s a cycle thing there.” Being effective “motivates you to do better – try and do it better…it is a circular process – a two-way process that is feeding on itself.”

This process of positive feedback also occurs through being effective at having a community focus. The recursive relationship is described by staff as reinforcing through positive feedback from customers and external health providers on service delivery and trusted behaviour due to being effective at having a community focus. The recursive influence of being involved with health promotion and preventative care is also described as “maintenance, reinforcement, feedback and improvement – to maintain, being effective at being involved with health promotion and preventative care maintains what we are doing right now.” And reinforcement occurs: being good at this effectiveness dimension “reinforces the way we do it” (“that’s the way we do it…has a lot to do with customer relations…it’s a primary activity”). By “looking for opportunities to do our health promotion and screening systems…it reinforces fun and satisfaction.” The recursive relationship was also reinforcing and maintaining within the dimension of communicates and advocates: “if you’re good at it you’re going to do it all the time.”
Effectiveness influences four-wall culture and the subsequent attainment of VO in recursive ways

In addition to the language outlined in the previous section, there were also influences within the recursive relationship which appear as part of the discussion within the contingent relationship. This is not because the relationships are the same, but due to the fact that discussion about the recursive influence of OE on OC progressed on to discussion about the subsequent influence of OC on VO. This reflects the recursive influence of OE on OC and thereafter VO. It reflects the notion of feedback and the circular and mutual shaping of OC on OE, and vice versa.

Being very good at (or not so good at) particular dimensions of OE influences the development of an environment which determines whether customers receive better service or not. By being effective at managing human resources and demonstrating leadership it is possible to select the right people, which influences the four-wall environment of the pharmacy: “by picking the right people, those that embrace the culture of the pharmacy…that culture goes out into the community.” Picking people that can “talk to customers in a non-intimidating way…customers need to feel that they can come in and discuss problems” (it’s a free talk-shop) and “not just get their medications handed out...we are not pill-counters nor a supermarket…that’s what a community-based pharmacy is all about.” Being effective at picking the right people also means that “everyone knows what they’re doing and the staff aren’t carrying other staff who are no good.” Having skilled staff at all levels within the pharmacy eliminates barriers between staff: “everyone’s happy and the pharmacy runs smoothly.” Being effective at selecting the right staff influences the environment, “it is relaxed and warm” and there is the perception from customers that sound advice and great service is provided in this sort of environment. As a result staff believe that an important VO will be attained, that is, customers will come back.

By being effective at managing human resources and demonstrating leadership this ensures a level of financial viability and sustainability of the business and makes staff feel more stable in their employment which is one of the VO. The ramifications of this are that “they (the staff) can think about their work and work productivity.” Having effective leadership also means there is an adequate “pharmacy set-up in terms of staff and structures.” Having more pharmacists and having expert skills within the various levels of staff in the pharmacies “allows a focus on service provision with counselling
and sound advice.” This was expected to lead to better health outcomes, which is another VO.

**Being effective also influences the co-production of OC**

As within the contingent relationship, within dialogue about the recursive relationship the co-production of OC emerges through the shaping and influence with the external actors who include customers, other health care providers, and funders and planners. Being effective within the OE dimensions of: contributes to the safe use of medicines, has a community focus and communicates and advocates; influences the co-production of OC with customers. Being effective within the OE dimensions of integrating within the rest of primary care, being a respected innovator organisation that takes opportunities and prepares for change and being involved with health promotion and preventative care influences the co-production of OC.

**Co-production of OC with customers**

By “trying to do it more effectively (contributing to the safe use of medicines), you (the staff) are thanked by the customer. This motivates you to do better. Feel good and do better, do better and feel better – there’s a cycle thing there.” Equally, by not being effective within this dimension “the things you do in the pharmacy would leave much to be desired, there would be less services provided and more errors. There would be no leadership, bosses wouldn’t trust pharmacists and there would be a tense atmosphere.” This affects the ability of staff to be trusted by customers and other staff. It is suggested that “customer confidence would be reduced and the pharmacy would have a bad reputation; customers wouldn’t come back.”

Staff highlight that by being effective at being involved with health promotion and preventative care and it being a primary activity “then customers respect your advice…they come in for it, they seek individuals and they will come back.” Further, “patients feel confident in taking medicines…they trust you more…they know they can come back and ask questions.”

Staff suggest that being effective at having a community focus influences decision making because “decisions are made based on how patients would perceive things. Decisions are based around how they affect patients, communities and locals.” This has been labelled as social responsibility. This denotes the focus on the health of the
population at large, professionalism and the patient over profit. The notion that customers and pharmacy staff are “old friends” which staff believe develops through being effective at having a community focus and through employing people who “can relate, be friendly, welcoming and be more approachable.” By being effective at having a community focus there is a history with the community: “the pharmacy staff feel open to knowing customers; they know customers well, know their needs.” Underpinned by this, “staff are happy in their relationships with customers and customers are friendlier. Customer friendliness and customer talk rubs off on staff and the team is bubblier.” This demonstrates the influence of staff on customer and vice versa which influences the four-wall culture of these community-based pharmacies.

There is recognition by staff that by “doing these things effectively we are appreciated by customers.” Staff realise that “they (customers) value us” and as such “staff put more energy into trustworthiness…staff feel good about doing good.” Staff are “wanting to be trusted by customers” and by having a community focus it “means you have a customer focus which provides motivation for integrity and professionalism.” Staff suggest they will “help in any way… thereby developing trust with the customer.” By “not trying to just sell something” this reinforces trusted behaviour.

By being effective at having a community focus and influencing OC through co-production with customers this leads on to influence the VO labelled staff satisfaction. There is a reinforcing effect – positive feedback of staff satisfaction through customers valuing them and this reinforces team and individual roles. The “more things staff do better and the more positive feedback they receive from customers and the community the more confident staff are.” The “development of trust and respect for a particular staff member by customers means they’ll come back”, influences the VO labelled customer retention.

If pharmacies were not effective at having a community focus then staff believe that the “pharmacy would be a different sort of business – there would be less counselling and it would be more sales oriented.” Specific roles would not be developed and “staff from culturally appropriate backgrounds would not be employed.” Staff believe this would reduce their level of workplace satisfaction and staff rotation would be greater, impacting negatively on staff retention as a VO. Additionally, by not being effective at having a community focus this influences co-production of OC with customers and as a result the VO labelled financial viability. Staff imply that “customers would feel less comfortable
and only people who had to, would come in to the pharmacy. Customers will feel harassed and the pharmacy could be less busy as a result.” Not being effective at having a community focus also appears to influence four-wall culture. This reflects the dominance of the OC construct and the recursive influence of OE on OC and subsequently VO, that is, OC is influenced by OE (recursive) but the discussion continues with the contingent influence of OC on OE and VO.

Co-production of OC through interaction with other health care organisations

Being effective at integrating within the rest of primary care, a respected innovator that takes opportunities, prepares for change, and gets involved with health promotion and preventative care influences the co-production of OC with other health care organisations. External co-production of OC is influenced by being effective through integration within the rest of primary care – effectiveness within this dimension signifies being “good at building relationships and being personally known…having contact with other team members and input.” In this way pharmacy staff suggest they “become more comfortable with asking other health care providers questions.” Relationships build trust across the wider team and there is better access to the prescriber. Developing relationships allows discussion and doctors are receptive to ideas and value different health professionals having different roles and skill-sets. Staff note that “doctors respect what is said because the pharmacy is effective at it. Other providers can and will call in or phone for advice.” Staff suggest that this “makes the workflow a whole lot easier.” These scenarios exemplify the external co-production of culture.

At one case site there was a strong belief that GPs and PHOs already focus on the patient and that pharmacy as a sector needs to do this. The owner of this case site is very much externally focussed and suggests of the local PHO “They are patient centric and this helps to change the thinking of pharmacy leadership. We begin to ask how can pharmacy play a part in all of this....Getting the professional pharmacy staff involved in this also strengthens culture.”

More freedom is afforded to contact doctors when the pharmacy is effective at integrating. This means that patients are expected to be better looked after as the patient centric culture (co-produced with GPs) assists in problem solving for both patients and communities. The pharmacy becomes a multidisciplinary problem solver and a patient advocate. If the pharmacies are effective within this dimension the GP and/or primary
care team dominates the co-production of culture (i.e., external co-production over the customer co-production of culture). The reverse is true if the pharmacy is not effective within this external integration dimension. This reflects the dual nature of pharmacy as retail business, focussing on the customer and as health care provider focussing on the patient and their health outcomes.

Being effective at the OE dimension of being a respected innovator organisation that takes opportunities and prepares for change, influences the external co-production of OC. Staff suggest that “it’s about building relationships and being effective at this.” Co-production of OC is evidenced by the belief that the leaders’ (of the pharmacy) thinking is influenced by external parties. One owner suggests “that makes you think about, how pharmacy can play a part in assisting to solve local problems” and that GPs and PHOs have “broken out of silos and are taking a patient centred approach.” Getting the professional staff involved with this, leverage training and continuing professional development (CPD) from working with a wider team further assists this patient centred approach.

By being a respected innovator organisation that readies for change and is an effective builder of relationships, one owner suggests that “parties external to the pharmacy are receptive to new ideas” and this is where the four-wall culture of the pharmacy has an influence on other providers’ OC. External parties will involve the pharmacy in innovative services. Through integration it is believed by owners that they could more easily implement enhanced services. An owner from one pharmacy suggests that “those who integrate well should be thinking about some sort of innovation anyway.” Being effective influences new forward thinking and the provision of services. If not, it is possible that “we might not be able to offer services if the pharmacy hasn’t embraced that new sort of forward thinking which happens; then they might not be able to offer those services to the customer. That influences the way your customers benefit at the end of the day; they might not get the full health benefit”. This influences the VO labelled better health outcomes.

Both customer co-production and external health provider co-production of culture emerge as being influenced by effectively communicating and advocating. Co-production of culture with customers centres on the notion by staff that “once you start doing things for people, it’s likely that they may expect it in the future.” When effective within this dimension of OE, staff are comfortable and relaxed, and they highlight “there’s no
awkwardness” and as a result “customers are gonna be happy with the service.” By being effective at communicating and advocating for the patient this mediates external communication. This allows interaction with GPs and nurses, innovation to occur and early adoption of activities involving these GPs.

Cyclic nature of the relationship between OE, OC and the attainment of VO

Staff suggested that due to the fact these case site pharmacies have safe and effective workflows and are effective at providing advice, pharmacies are trusted by customers and customers willingly come back to these pharmacies. There is a strengthening and reinforcing of this trust by customers and valuing within the team through being effective across a number of dimensions of OE. There is positive feedback back to staff through customers valuing the pharmacy by being effective at having a community focus. The more things staff do better and the more positive feedback staff receive from customers and the wider community, the more confident staff are which influences the VO labelled staff retention.

Theoretical proposition 4: OC and OE are partially conflated and mutually constituted

Summary of proposition 4

OC, OE and VO are distinct constructs however there is a degree of overlap between OC and OE. This overlap appears at two levels: during construct development and within the discussion of the nature of the relationship between OC, OE and VO. The overlap suggests a degree of inseparability, with OC and OE being partially conflated. Related to, but different from the concept of partial conflation is the finding that OC and OE are mutually constituted social constructs. This is a higher level more tacit proposition, where shaping of OC and OE occurs through contingent and recursive relationships. OC is the dominant construct and contingent the dominant relationship in this theory.
Partial conflation

Conflation occurs when the identities of two or more concepts sharing some characteristics of one another become confused until there seems to be only a single identity; the differences appear to become lost. There is a blend or a mixing together of different elements. The term partially conflated used in this thesis denotes a degree of overlap, a level of fusion, confusion, or combination of elements of OC and OE. OC and OE were difficult to completely separate in this study, but they did not manifest as a singular merged construct. OC and OE are not deemed to be one and the same, two sides of the same coin, or the same thing viewed from different perspectives. They are more distinct than they are merged. In a partially conflated state they demonstrate a contingent relationship with VO. OC provides the orientation toward process and OE manifests as technical performance, the carrying out of prescribed tasks.

Partial conflation at the level of construct development

Despite an attempt to partition OC and OE within a defined theoretical frame, these constructs emerged from the inductive concept mapping sessions containing similar dimensions. There is a ‘likeness’ between what constitutes OC and what constitutes OE in this thesis. This is despite there being different representation in the sessions and the
theoretical conceptualisation which was expected to reduce the potential for construct overlap. OC was conceptualised as a metaphor with a cognitive slant – the way(s) we think and act in pharmacy whilst OE was conceptualised as multi-constituent, value-laden and politically charged. Table 10 demonstrates the dimensions of the OC and OE constructs and highlights the similarity between them.

Table 10: Similarities between dimensions of culture and effectiveness

<table>
<thead>
<tr>
<th>Dimensions of organisational culture</th>
<th>Dimensions of organisational effectiveness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leadership and staff management</td>
<td>Manages human resources and has leadership</td>
</tr>
<tr>
<td>Valuing each other and the team</td>
<td></td>
</tr>
<tr>
<td>Free thinking, fun and open to challenge</td>
<td></td>
</tr>
<tr>
<td>Trusted behaviour</td>
<td></td>
</tr>
<tr>
<td>Customer relations</td>
<td>Communicates and advocates</td>
</tr>
<tr>
<td></td>
<td>Has a community focus</td>
</tr>
<tr>
<td>Focus on external integration</td>
<td>Is integrated within the rest of primary care</td>
</tr>
<tr>
<td>Providing systematic advice</td>
<td>Provides health promotion and preventative care</td>
</tr>
<tr>
<td>Embracing innovation</td>
<td>Is a respected innovator, takes opportunities and readies for change</td>
</tr>
<tr>
<td></td>
<td>Has safe and effective workflows</td>
</tr>
<tr>
<td></td>
<td>Contributes to the safe use of medicines</td>
</tr>
</tbody>
</table>

Partial conflation at the level of the contingent and recursive relationships

The second level of inseparability emerges through interpretation of the influences and interplays between OC, OE and VO. Within discussion about the contingent and recursive relationships there is some overlap in what constitutes OC and what constitutes OE. Within the contingent relationship the four-wall OC emerged in part as cognitive orientation towards organisational activity. OE manifests as technical performance, the carrying out of prescribed tasks. The original conception of culture as the way(s) we think and act along with the emergence of the OE construct as an intermediary, as technical performance creates a level of blurring, of inseparability. Despite some overlap, these constructs remain separate, based on being able to differentiate OC and OE through their respective contingent and recursive influences.

At times during the interviews, participants expressed confusion and needed clarification as to whether they were talking about the OC or OE construct. This appeared to be more about the constructs than how interview questions were posed. This further supports the complex nature of the relationships between OC and OE, their relative inseparability and being partly conflated.
Although there are common influences within the contingent and recursive relationships, the relationships are fundamentally different. This reflects the fact that OC and OE are not two sides of the same coin, or different labels for the same construct. OC is dominant and OE an intermediary that manifests as technical performance within both the contingent and recursive relationships.

**Mutual constitution through contingent and recursive relationships**

The notion that OC and OE are mutually constituted is a more tacit and high level finding, derived from the contingent and recursive shaping of OC by OE and vice versa. The relationships are complex with the attainment of VO being contingent upon a cultural orientation toward procedure and process which supports OE manifesting as technical performance. VO are the organisational level outcomes that are valued by pharmacy staff and owners, and so OE manifests as an intermediary construct that is partially conflated with OC. Being good at (or not so good at) dimensions of OE also has influence on OC. The attainment of VO is contingent upon OC. It is also contingent on the ongoing influence of OC on VO which reflects a recursive influence. This supports the cyclic nature of the relationship and the feedback and interplays between OC, OE and VO (Figure 20).

In terms of cultural dominance, respondents suggested that “it all starts here with culture” and that “you have to be good at it in the first place.” Referring to the 16 cognitive maps, the influences of OC on OE are not dissimilar to the influences of OE on OC (i.e., discussion in the ‘reverse’ direction). The word recursive replaces contingent, in describing the nature of the relationship. There are influences in the relationships which are unique but there are some commonalities regardless of the ‘direction’ of discussion. This is based on the fact that discussion with participants about the recursive influence of OE on OC did not stop at that point.

This is schematically represented in the diagram below (Figure 21). Being effective at having a community focus provides an example of this (Appendix 7, Figure 38). Dialogue begins with how being effective at having a community focus involves ‘doing’ (effectiveness as action - technical performance) and how this influences OC to manifest out of this. Influences that appear within discussion about the contingent relationship also appear in this map. Some examples include: perceptions of time and the free-talk shop, going the extra mile, providers of the right advice and development of trust. VO emerge
out of this discussion of the ways in which OE influences OC including in this case, customer attraction and retention and business viability. Better health outcomes and health benefits emerge from OE dimensions such as contributes to the safe use of medicines, involved with health promotion and preventative care and communicates and advocates (Appendix 7: Figure 35, Figure 41, Figure 42).

Figure 21: Schematic representation of the recursive relationship

This further supports the inseparability of OC and OE and the conflated nature of the relationship and also the shaping of one by the other, labelled mutual constitution.

There are complex interplays between four-wall culture, co-production of OC, OE as technical performance and the attainment of VO. This reflects the notion that contingent and recursive relationships shape OC and OE and so these constructs are mutually constituted over time. Although interviews were undertaken at a set point in time it is likely that this process is ongoing, a continual process but further investigation is required to confirm this. Likewise, the blurring or partial conflation of OC and OE further adds to this complexity. These two phenomena are likely to be related but this notion was not explored and is a consideration for further research.
The recursive relationship was more difficult for participants to construct

The recursive relationship seemed more difficult for participants to construct and articulate than the contingent relationship. This was also the case during piloting of the interview schema and provided the rationale for discussing the contingent relationship first, so as not to make the start of the interview awkward.

When asked to explain why it is easier to articulate the influence of OC on OE than the other way around many participants couldn’t articulate why this was the case. These difficulties of articulation may reflect the dominance of the OC construct, with participants identifying with that construct more than the OE construct. It could also reflect the relative inseparability of OC and OE, with participants having discussed the dominant contingent relationship and having difficulty articulating the difference between the two relationships. The fact that OE is an intermediary construct in the contingent relationship and not an organisational endpoint (a VO), and the fact it manifests as technical performance also reflects this.

The difference in articulation of these relationships offers support for the thesis that these relationships are different, despite partial conflation of OC with OE and the fact that OC and the contingency relationship are dominant.

Interestingly, the recursive relationship was not as difficult as the contingent relationship to analyse and interpret. There was a greater level of complexity within the contingent relationship, possibly due to the volume of data that needed to be managed and reduced through NVivo coding and cognitive mapping. There was less dialogue about the contingent relationship and therefore less complexity of influence and interplay which seemed easier to interpret.

Chapter summary

This study set out to explore the nature of the relationship between OC and OE. A construct labelled Valued Outcomes (VO) emerged to supersede OE as the endpoint in the discussion about the influence of OC on OE. Manifesting as technical performance OE was an intermediary construct, supported by cultural orientation toward system and process. The attainment of VO is contingent upon influences including four-wall culture, co-production of OC and OE manifesting as technical performance. OE influences OC and therefore the attainment of VO, in complex, non-linear and recursive ways. Together, the contingent and recursive relationships suggest mutual constitution of OC and OE. OC
is the dominant construct and despite the development of OC and OE as defined here, these constructs emerge as overlapping and partially conflated.
Chapter 10: Discussion

Purpose of Chapter 10

The purpose of this chapter is to: discuss the theoretical output of this study as it relates to existing literature; consider limitations; and signal the implications of this work for theory, policy and practice.

The research question and summary of study outcomes

Based on the desire to better understand the relationship between OC and OE in the context of community pharmacy, the following research question was posed:

What is the nature of the relationship between organisational culture (OC) and organisational effectiveness (OE) within six New Zealand community-based pharmacies?

This thesis reports the outputs from a theory building exercise. A new construct (VO) emerged reflecting the outcomes that participants valued and this superseded OE which manifests as intermediary, through technical performance. Relationships between constructs were found to be contingent, recursive, mutually constituted and partially conflated.

The theoretical output of this thesis

Four propositions constitute ‘the theory’ (Figure 22):

- VO supersedes OE as a distinct construct, representing organisational endpoints that staff and pharmacy owner’s value.

- The attainment of VO is contingent upon four-wall OC, co-production of OC and OE which is intermediary and manifests as technical performance.

- The relationship between OC and OE is recursive.

- OC and OE are partially conflated and mutually constituted.

Together, these findings reflect contemporary literature’s movement away from direct causal relationships to complex, non-linear and recursive interplays between OC and organisational outcomes. Partial conflation and mutual constitution explain the difficulty found in previous studies of conceptualising and operationalising OC and OE as distinct. Emergence of VO adds to the construct identity literature and the ongoing debate about
this, through recognition of subtle difference in organisational constructs and the benefit of seeing constructs for what they are. Manifestation of OE as technical performance aligns with existing health services research suggesting effectiveness is the technical carrying out of prescribed tasks. The recognition and exploration of contingent and recursive relationships extends health services research literature and this has implications for policy and practice, as well as approaches to future research. The literature on the application of organisational science frameworks to pharmacy practice research is scarce and this culture-effectiveness study is a significant contribution to that literature stream.

![Diagram](image)

**Figure 22: A culture-effectiveness theory**

**Theoretical proposition 1: VO supersedes OE as a distinct construct**

**Summary of proposition 1**

VO emerged as a construct distinct from and superseding the effectiveness construct (OE). VO is more highly valued by participants than OE. OE manifests, through participant discussion, as technical performance—the carrying out of prescribed tasks.
Comparison with existing literature

VO and OE are distinct constructs

Within academia, there are two dominant views regarding the conceptualisation of organisational outcomes. One school supports the argument that ‘same’ or ‘different’ lies with semantics and that effectiveness, efficiency, quality, excellence and performance are one in the same (Kanter & Brinkerhoff, 1981):

…..we make no hard-and fast distinctions among effectiveness, productivity, performance and success. Rather, we look for all related measurement issues and use both effectiveness and performance as general and interchangeable terms… (Kanter & Brinkerhoff, 1981, p. 322)

On the other hand there is the view that these terms and definitions represent distinct phenomena which are conceptually and operationally different (Altschuld & Zheng, 1995; Cameron, 1985; Cameron & Whetten, 1983; J. P. Campbell, 1977; Dickinson, Peck, Durose, & Wade, 2010; Spray, 1976).

Like almost all terms in our language, the meaning of effectiveness is socially determined. Some disagreement over its definition has and probably will continue to exist. Consequently, by differentiating effectiveness from other concepts we are reflecting on our own biases about what effectiveness means. On the other hand, to be precise about the focus of this special issue, it is necessary to draw some boundaries around its meaning and separate effectiveness from these other descriptors. (Cameron, 1985, p. 2)

Braithwaite and colleagues caution this field by suggesting there is the potential for taxonomic ‘lumping’ and ‘splitting’ but they leave it to the reader to decide whether this is legitimate (Braithwaite, Hyde, et al., 2010). There is an awareness of the potential to ‘lump and split’ however the aim of this thesis is not to apply different labels to the same construct to develop different theory. VO and OE are interpreted as distinct and the following findings provide confidence for this. First, VO was identified with, and valued by staff to a greater degree than the OE construct. Second, VO emerged to supersede OE as a collection of outcomes representing organisational endpoints with OE manifesting as technical performance. Third, aspects of the VO construct were not represented in the OE construct which was dominated by process. These findings are compared with existing literature in the remainder of this section.
Outcomes are valued by organisational members

One of the facets that set VO apart from OE is the emphasis on valuing by organisational members. VO were spoken about differently from the OE construct. VO emerged as a result of the fact they were emphasised and valued as important over the OE construct in discussions regarding the influence of OC on effectiveness. This notion of valuing organisational outcomes is not new to the literature. Campbell (1977) suggests effectiveness is value-laden and politically charged. This underpinned the multi-constituent development of OE in this thesis. The Competing Values Framework (CVF), widely used as an indicator of cultural orientation, is also founded on this, with the CVF starting life as effectiveness criteria and ending its development as a cultural typology (Cameron & Quinn, 1999; Quinn & Rohrbaugh, 1981). This illustrates the proposition that OC and OE are separate rather than partially conflated constructs.

VO superseded OE which manifests as technical performance

On reflection, it is not surprising that OE manifest as different from the original effectiveness conception. OE was framed as a high level mental abstraction from which a concrete model was generated (Cameron, 1985; J. P. Campbell, 1977). Being socially constructed, participants were likely to view this OE construct in a number of ways. It was expected that the OE construct would constitute effectiveness as an organisational endpoint however a pattern emerged with OE being an intermediary construct in the discussion of OC influencing VO, and manifesting as technical performance. VO emerged through the perceptions of pharmacy owners and staff as organisational endpoints.

The notion of OE as technical performance is not new. Scott and colleagues describe the three main senses of performance from the literature as: socio-technical processes of care, endpoints or outcome and effectiveness as a dramatic event (Scott, Mannion, Marshall, et al., 2003). The OE construct represents socio-technical processes and VO the endpoints and outcomes. Mckenzie’s (2001) theory of performance is also reflected in this study. Mckenzie suggests that performance is an amalgam of efficiency, effectiveness and cultural performance. The effectiveness component is described by Dickinson et al (2010) as “technical carrying out of prescribed tasks, successful or not” (Dickinson, et al., 2010, p. 200).
In their study, Dickinson et al. (2010) applied Mckenzie’s (2001) framework to the primary care sector in the UK and OE manifested as action, as something to get right or something that can be honed. This thesis aligns with Dickinson’s findings in reflecting the effectiveness component of Mckenzie’s theory of performance. This study might also be compared with the Donabedian (1966, 1988) framework of structure, process and outcome for the provision of quality health care. Equally, one could compare this thesis with Braithwaite’s (2006a, 2006b) model which is based on a combination of Giddens-Weick-Martins work, where social structure (culture) and agency (behaviour or action) influence the development of clinical directorates.

In a broad sense this thesis includes structure as part of OC, process as technical performance and outcomes as the VO construct. Although there is some alignment in the components of Donabedian’s frameworks, the major difference is that this thesis is not aligned with the linearity described by Donabedian (i.e., structure and process influence outcome in direct causal ways). Braithwaite (2006a) raises the question of conceptual relationships between OC and structure and highlights that Alvesson (2010) believes they represent different abstractions of the same phenomena. That view is not entertained in this thesis. Taking a metaphorical view of OC, social structure is a subset, a manifestation of OC (Martin, 1992, 2002; Smircich, 1983). However, there remains some alignment between Braithwaite’s structure/agency conceptualisation and the OC/technical performance (as action) proposed by this thesis.

OE under represents outcome as defined in the VO construct and other concept mapping literature

Outcome indicators dominate when developing OE constructs, whilst structure and process receive less attention (Scahill, Harrison, & Carswell, 2010b). Donabedian’s (1966, 1988) approach was not adopted for this thesis to ensure that each dimension of OE included elements of structure, process and outcome and to reduce a dominance of outcome indicators. Four of the 104 statements of the OE construct were represented in VO suggesting these two constructs are distinct. VO did not appear to emerge as a subset of OE. For example, the outcome ‘customers will come back’ which is labelled customer retention, was a significant contributor to VO and yet it was not represented through single or multiple statements as a dimension within the OE construct. If the OE statements were forced into Donabedian categories there may have been more outcome indicators, but they were likely to have remained distinct from those in the VO construct,
supporting the notion the constructs are different. There was a dominance of structure and process in the OE construct within this thesis which was a different result from the concept mapping exercise undertaken by Roeg et al. (2005) who forced statements into Donabedian’s categories.

**Theoretical proposition 2: Attainment of VO is contingent upon complex influences**

**Summary of proposition 2**

The attainment of VO is contingent upon four-wall culture, the co-production of this OC, and the manifestation of effectiveness as technical performance. Cognitive mapping of 47 interviews suggest the contingent relationship is non-linear, not directly causal and complex in nature.

**Comparison with existing literature**

The relationship between OC and OE has been described as linear, causal and founded on cultural strength in the corporate culture literature (Deal & Kennedy, 1982; Kotter & Heskett, 1992; Ouchi, 1981). The findings of this thesis are contrary to that. There has been criticism of applying direct cause and effect theory to OC-OE studies (Alvesson, 2002; Lincoln & Guba, 1985; Martin, 2002). This criticism is based on the likelihood of complex rather than simple linear relationships between organisational constructs. This thesis demonstrates that the relationship between OC and OE is complex, non-linear and multi-directional and is in agreement with Scott, Mannion and Davies (Davies, et al., 2007; Mannion, Davies, Harrison, Konteh, Greener, et al., 2010; Mannion, et al., 2005; Scott, Mannion, et al., 2003a; Scott, Mannion, Marshall, et al., 2003) who recognise the need for a deeper and richer exploration of the OC-OE relationship.

This thesis aligns with contingent influences of OC on effectiveness through studying a different context and by employing an interpretative rather than a positivist methodological approach. The existing literature has been extended by exploring the relationship through an interpretative lens. The attainment of VO is contingent upon particular cultural orientations. These cultural orientations manifest in a dual fashion, as retailer and as health care professional. The duality is also reflected in the VO construct which includes domains of business and health care provision.
OC also provided an orientation toward process through procedure and system development and this facilitated the manifestation of OE as technical performance. A major contribution to the health services research literature is the proposition that, in addition to the four-wall culture carried by pharmacy staff, the attainment of VO is contingent upon the influence of cultural co-production, through interaction with customers. Within the corporate culture literature (Kotter & Heskett, 1992; Ouchi, 1981; Peters & Austin, 1985; Peters & Waterman, 1982), organisational science literature (Cameron & Quinn, 1999; Denison, 1990; Denison & Mishra, 1995; Schein, 1985, 2004), and health services literature (Davies, et al., 2000) the focus has generally been on adaptation of internal OC in dealing with the external environment. There has been an awareness of the benefits in understanding the impact of external influences on organisations with a focus on managing the challenges that arise from changing external environments, particularly with respect to competition.

More recently, research has focussed on how external actors might shape and co-produce internal OC in health care (Hyde & Davies, 2004). This thesis adds to that body of literature in two ways. First, through recognition that co-production of OC can influence organisational outcome. Second, this occurs in complex non-linear ways. Customers were perceived by staff to be actively involved in the co-production of OC in this study and cultural orientation emerged through this two-way interaction between staff and customers. Co-production and co-consumption of OC are relatively new phenomenon with the focus on production of culture by internal organisational members (Linstead & Grafton-Small, 1992). The findings of this study suggest that cultural boundaries are likely to extend beyond the four-wall culture of organisations under study and include not only the influence of staff on customers but also the influence of customers on staff.

Co-production makes rational sense when the ontological stance is social constructionism and the epistemology interpretative. If OC is deemed to be a socially constructed phenomenon then by definition the meaning and sense-making of OC is constructed in and out of interaction between human beings in their lived world (Crotty, 1998). The four-walls of the pharmacy ‘is’ the lived world of pharmacy staff in this study and external actors such as customers influence the way the OC manifests. As such the co-production of OC and the mutual shaping by staff and customers thereof goes a step beyond internal cultural production theories. Hyde and Davies (2004) highlight that “there is emerging evidence to suggest that organisational culture can affect the
performance and quality of health services, little attention has been directed at how these relationships might be mediated, facilitated or attenuated by service design” (Hyde & Davies, 2004, p. 1407).

Hyde and Davies (2004) note that little weight has been given to the role of patients, clients or other service users in determining effectiveness of service delivery. They found OC and performance to be emergent properties of service design, and central to their idea of service redesign was the notion that service users are co-producers (with staff) of both OC and organisational performance. Hyde and Davies call for a better understanding of how such co-production processes are moderated by design configurations within other health care contexts. This thesis goes some way toward achieving this, albeit from a focus on the relationships between OC and OE and not service design per se.

OC is also expected to be influenced by broader policy and the organisational environment, but little attention has been directed at how these relationships are modulated (Mannion & Davies, 2003). There is a call by health policy-makers in New Zealand for increased multidisciplinary teamwork and integration between health care providers (Ministry of Health, 2001a, 2001b, 2006, 2007; Ryall, 2007), and the influence of this emerges in this study. The co-production of OC manifests through doctors and health planners changing their thought and action to become more patient centric and thus influencing pharmacy to take on a cultural orientation which is patient centric. Over half of the pharmacy case sites were integrally involved with GP centres and it appeared that there was mutual shaping of one organisation by other at these sites despite not being co-located.

There are few studies which investigate the OC of community pharmacy (Clark & Mount, 2006; Seahill, 2008a; Seahill, Harrison, & Carswell, 2010a; Seahill, Harrison, et al., 2009a, 2009b) and none that investigate the potential for cultural co-production as an influence on organisational outcome. Pharmacy studies report a number of barriers to pharmacy delivering enhanced services including: a perceived lack of mandate and legitimacy for community pharmacy by New Zealand GPs (Bryant, 2006; Bryant, Coster, Gamble, & McCormick, 2009; Bryant, et al., 2010a; Bryant, Coster, & McCormick, 2010b), unclear professional boundaries, turf protection and lack of multidisciplinary teamwork (Adamcik, et al., 1986; Gilbert, 1998; Nathan & Sutters, 1993; Seahill, Harrison, & Sheridan, 2009; Warchal, et al., 2006). The reverse has been shown to be true, when considering facilitators of practice change in the Australian context (A. S.
Roberts, et al., 2006). These studies are not explicitly about OC but provide some impetus for this thesis through the desire to better understand the ways in which other health care providers might influence the OC and therefore the outcomes of community pharmacy. This thesis goes some way towards identifying that external co-production of OC does occur and in what ways this might happen. However, significantly more research is required to fully understand the mechanisms and the implications.

The dual identity of community pharmacy as health service provider and retailer has been written about (Benrimoj & Frommer, 2004; Bissell & Morgall Traulsen, 2005; Deselle & ZGarrick, 2005; A. S. Roberts, Benrimoj, Dunphy, & Palmer, 2007) and is likely to influence the re-professionalisation process which is expected to occur through role extension as a health provider and integration into the wider primary health care team. There is a scarce literature which reports the OC of community pharmacy (Scahill, 2008a; Scahill, Harrison, et al., 2009b) and there does not appear to be any other studies that explore the manifestation of OC and VO in this dual manner through a cultural lens. Some work has been undertaken on the corporatisation of pharmacy through the development of chains (Bush, Langley, & Wilson, 2009; Clark, 2009), ethical decision making (Cooper, Bissell, & Wingfield, 2008) and consumerism and professional work (Hibbert, Bissell, & Ward, 2002). However, this thesis appears to be the only study to date which specifically explores the dual manifestation of OC and VO in the context of community pharmacy. Although there is more work to be undertaken in this area, this thesis goes some way to recognising and addressing this duality and offers a significant contribution to the pharmacy practice research literature.

**Theoretical proposition 3: The relationship between OC and OE is recursive**

**Summary of proposition 3**

Being good at dimensions of OE had a recursive influence on OC. Reinforcing, strengthening, improving and maintaining were used by participants to describe this influence which were complex, non-linear and multi-directional in nature.

**Comparison with existing literature**

Theoretical work on the OC-OE relationship reported by Denison and colleagues suggest a unidirectional and causal relationship between OC and OE (Denison, 1990; Denison &
Mishra, 1995) which aligned with previous corporate culture research (Deal & Kennedy, 1982; Kotter & Heskett, 1992; Ouchi, 1981). Mannion et al. (2005) observed divergent cultural patternings in UK NHS hospitals that were grouped by performance suggesting these might be very different work environments. Their findings were congruent with contemporary quantitative studies (Scott, Mannion, Marshall, et al., 2003) but they state the caveat that culture and performance were most likely to be mutually constituted in a recursive fashion. In their view OC drives performance, but equally likely is the scenario that high performance may drive OC however more research was required to elucidate the nature of the relationship (Mannion, Davies, Harrison, Konteh, Greener, et al., 2010).

In addition to contributing to the understanding of the contingent relationship, Mannion, Davies and colleagues (Davies, et al., 2007; Mannion, Davies, Harrison, Konteh, Greener, et al., 2010; Mannion, et al., 2005) have spurred a recursive research agenda. The complex, dynamic, non-linear and multi-directional relationships found in this study were congruent with commentary around the potential for a recursive relationship (Mannion, Davies, Harrison, Konteh, Greener, et al., 2010; Mannion, et al., 2005). This thesis is in agreement with the call for richer and deeper understandings and extends the work of Scott, (Scott, Mannion, et al., 2003a; Scott, Mannion, Marshall, et al., 2003) Mannion (Mannion, Davies, Harrison, Konteh, Greener, et al., 2010; Mannion, et al., 2005) and Davies (Davies, et al., 2007), albeit from a different conceptual frame. By adopting an interpretive frame it was possible to explore the potential for a recursive relationship between OE and OC through the perceptions of staff members without longitudinal study. Not without its limitations, the results are best considered in light of these.

**Theoretical proposition 4: OC and OE are partially conflated and mutually constituted**

**Summary of proposition 4**

In this study, OC and OE were partially conflated and constituted similarly, despite a theoretical frame which separated them from the beginning. In a sense, this study demonstrates that OC and OE can’t be kept apart. The presence of contingent and recursive relationships suggests mutual constitution of OC and OE. The contingent relationship was easier for participants to articulate than the recursive relationship which appears to be due to the dominance of OC as an organisational construct.
Comparison with existing literature

OC and OE were conceptualised and operationalised as distinct constructs (Scahill, Harrison, & Carswell, 2010a, 2010b; Scahill, Harrison, et al., 2009a). Conflation occurs when the identities of two or more concepts sharing some characteristics of one another, become confused, until there seems to be only a single identity; the differences appear to become lost. There is a blend or a mix together of different elements. Partial conflation denotes a degree of overlap, a level of fusion, confusion and combination of elements. However, the overlap is not into a composite whole and the OC and OE constructs remain distinct enough to be identifiable in their own right.

Wilderom et al. (2000) suggest that most OC studies lack a clear conceptual frame and Scott and colleagues highlight the difficulties in studying this area, especially construct separation (Davies, et al., 2007; Scott, Mannion, Marshall, et al., 2003). At study initiation the notion that these constructs were conflated was not recognised. OC has in part, manifested as the cultural orientation upon which the attainment of VO was contingent. OC was well represented by cognition, the thinking aspect of the initial conceptualisation. OE manifested as technical performance, enacted behaviour. The manifestation in this study of OE as being both ‘socio’ and ‘technical’ reflects blurring.

There is a literature addressing construct identity and the differences between culture and climate (Alvesson, 2010; Bacharach, 1989; Braithwaite, Hyde, et al., 2010; Mintzberg, 2005; Pope, et al., 2010). However, the conflation of OC and OE has not been reported. When constructs emerge out of a study it is important to ensure that they are distinct and that the difference is not a result of labelling (Mannion, Davies, Harrison, Konteh, Greener, et al., 2010). Alvesson (2010) warns against complete conflation of organisational constructs that are closely related. He highlights that each construct offers new and different insights into understanding organisational phenomena. In this respect he supports Braithwaite’s caution around ‘lumping’ and ‘splitting’ previously discussed (Theoretical proposition 1) but also suggests that there is some merit in investigating whether there is a difference between related organisational constructs (Alvesson, 2010; Braithwaite, Hyde, et al., 2010). This notion could be applied to OE and VO.

There were similarities between the axis of the OE construct and the CVF. The OE construct was formulated into a quadrant style model setting clusters of stakeholder focus against role development. The poles of stakeholder focus included ‘internal capacity’ and
Chapter 10: Discussion

'social utility'. The poles of role development were labelled ‘traditional safety roles’ and ‘integration and innovation’. The CVF included 39 indicators of effectiveness which clustered together to give rise to two main dimensions (Quinn & Rohrbaugh, 1981). One dimension differentiates effectiveness criteria that emphasise flexibility, discretion and dynamism from criteria that emphasise stability, order and control. The second dimension differentiates effectiveness criteria that emphasise an internal integration and unity from criteria that emphasise an external orientation, differentiation, and rivalry (Cameron & Quinn, 1999). In a matrix style typology, these two dimensions form four quadrants. Each quadrant represents a distinct set of organisational effectiveness indicators, but also four core cultural types (clan, adhocracy, hierarchy, market).

The potential for conflation is supported through comparison of these typologies, one of culture the other of effectiveness. Common to these two typologies is the juxtaposition of internal versus external focus and order, control and sameness versus flexibility, dynamicism and change. This suggests blurring and a level of overlap in content of these constructs, even though they are viewed through the lens of culture and effectiveness respectively. OC appeared to be the dominant construct in the relationship in this thesis and the contingent influence of OC with VO appeared to be easier for participants to articulate than the recursive relationship. There does not appear to be a literature to compare this finding with. The flurry of interest in studying OC as an important driver of competitive and financial success (Deal & Kennedy, 1982; Kotter & Heskett, 1992; Ouchi, 1981; Peters & Waterman, 1982) provides an indicator of OC as a dominant construct, and in lieu of the lack of literature provides indirect support for this thesis. The transition of the CVF framework from beginnings as criteria of effectiveness to ending up as a cultural typology also offers indirect support for the findings of this thesis regarding cultural dominance. Within health services research the contingent relationship between OC and effectiveness has been most studied which also provides some indication, albeit indirect, that OC may dominate over OE.

Limitations of this thesis

This study is conceptual in nature and involves an interpretative research design with three parts: development of the OC and OE constructs through two separate concept mapping exercises and exploration of the nature of the relationship between OC and OE through interpretation of 47 1-hour interviews. This is a theory building thesis and there are significant tacit components. There are limitations to this approach and the theoretical
propositions put forward are tempered by boundaries and other short comings. The findings are limited across the three phases of the study at two levels; conceptual and procedural. The conceptual and design limitations include: assumptions guiding development of the theoretical framework and the notion that OC and OE are separable; transferability of findings; involvement of external actors and the formulation of an ‘across case’ grand theory. Logistic and procedural issues largely include the running of the concept mapping exercises for development of OC and OE constructs.

**Separating the OC and OE constructs from the outset**

When developing this study, the theoretical framework was predicated on ontological assumptions of social constructionism, with separation of the OC and OE constructs and adoption of an interpretative epistemology. Davies and colleagues (2007) highlight the challenge in studying this area, stating “studying the culture and performance link in and across health care organisations poses substantial conceptual and methodological difficulties, not least in terms of conceptualising and operationalising both culture and performance” (Davies, et al., 2007, p. 48).

The search for a definitive OC-OE link has been dominated by organisational science researchers taking a positivistic slant, working through a lens in which the relationship between OC and OE are been viewed as: strong, direct, linear and causal (Ashkanasy, et al., 2000; Wilderom, et al., 2000). Through this theoretical stance, OC is treated as a variable, an organisational factor and OE as hard endpoint indicators and it appears relatively straightforward to separate them. The relationships described as direct, linear and causal suggest little is understood about the nature of the relationship (i.e., in what ways OC influences OE and vice versa). Within the health sector there has been the recognition of complexity within OC, OE and the relationship between them, with acknowledgement of the need for a deeper, richer understanding. The result has been a steady movement in the literature toward a view of patterns of culture and contingent relationships, largely replacing the notion of linearity. Within health care studies taking this stance, it has been difficult to separate culture and effectiveness and some studies have shown a causal link, whilst others have not (Davies, et al., 2007; Scott, Mannion, Marshall, et al., 2003). Researchers taking interpretative approaches suggest that viewing the relationship in a simplistic manner is likely to be a major contributor as to why a link may not be able to be made between these two constructs in some studies (Alvesson, 2002; Kernick, 2002, 2004a; Martin, 1992). The challenges in separation, the call for a
deeper and richer understanding and for theoretical guidance provides part of the impetus for this study. The ontological and epistemological approach taken in this thesis does allow for the separation of OC and OE as distinct constructs, in order to explore the nature of the relationship between them. However, it did not become obvious until the end of the interpretation process that as a result of separating the constructs, this study is positioned closer to the positivist end of the research spectrum than initially realised.

In this thesis, OC and OE were separated as organisational constructs for two reasons. First, to take up the challenge set down by more positivist researchers suggesting the most difficult part of studying the OC-OE relationship is the separation of these constructs as distinct, through clear conceptualisation and subsequent operationalisation. Second, the culture and the effectiveness literatures imply that OC and OE are relatively slippery constructs and conceptually the literature is in disarray.

OC and OE are conceptualised as socially constructed and by definition abstract and nebulous (Scahill, Harrison, & Carswell, 2010b; Scahill, Harrison, et al., 2009a). An in-depth culture study within the New Zealand courier parcel sector found that OC was a concept that some respondents find resonance with, but the majority have difficulty in explaining what the term encompasses (Burchell, 2003). Individuals will have their own views of what constitutes OC and what constitutes OE. However, with the high level of disarray in the literature and the likely difficulties with individuals defining what they see as OC, a pragmatic stance was taken to develop the OC construct then to talk about these in the interview setting. This approach is supported by the uniqueness paradox of culture: the notion being that culture can be described by the same dimensions regardless of the organisation, the difference being in the mix of dimensions and how they manifest (Lincoln & Guba, 1985).

Proponents who sit more toward the subjectivist end of the objectivist-subjectivist continuum, but who follow the ontological and epistemological frame of this thesis would advocate for non-separation of these constructs and development of the constructs and the relationship between them within the interview setting per se. In this way there would be no preconceived idea of what constitutes OC and what constitutes OE and the freedom of pure social constructionism would be afforded. The findings of this study have suggested that OC and OE are partially conflated and reflect the difficulty of positivist based studies in separating OC and OE. Deliberate partition of the OC and OE constructs may have forced what individuals see as potentially the same (OC and OE)
into constructs which were expected at the outset to be completely separable. There is the possibility that, through a more positivist stance than realised, OC and OE are reported as only partially conflated and less overlapping than if they were not separated in the theoretical framework.

**Limitations surrounding transferability**

Another conceptual limitation which warrants consideration is the transferability of findings of this study to other contexts within and external to the pharmacy sector (Lincoln & Guba, 1985). The three parts of the research design have inherent limitations with respect to transferability and these are best considered in turn. An interpretative epistemology guided this study and this presents limitation around the generalisability of findings and the requirement for a phase of testing to determine the level of generalisability of the propositions made. Despite immersion in the interview material and attention to robust data collection and analytic processes, other researchers may have interpreted the dialogue differently, and may have built a different theory. Transferability of this theory into the wider context of organisational science and health services research will need to be determined.

Transferability of findings within the pharmacy sector is impacted on by the sampling strategy. Case sites were selected purposively, in order to maximise the ability to develop theory that takes account of local conditions, mutual shapings, and local values (Lincoln & Guba, 1985). Selection was based on a policy-driven environment where pharmacies were deemed to be moving in the direction required of them by policy-makers and one of their professional pharmacy bodies. The case sites were expected to represent a relatively homogeneous grouping of community pharmacies that represent the ‘top-end’, in terms of alignment with policy expectations and pharmacy professional bodies. As such, transferability of findings within the pharmacy sector will need to be ascertained and whether there is a need to limit the findings to the study case sites, or whether widening to ‘like’ pharmacy cohorts or even disparate pharmacy practice and business models. Until this has been completed caution is advised in generalising these findings within the community pharmacy sector.

With respect to construct development, concept mapping allows inductive development however, Burchell (2003) and Burchell and Kolb (2003) highlight that there are trade-offs between positivist and interpretative techniques and that compromises are likely with
this hybrid technique (Burchell, 2003; Burchell & Kolb, 2003). The technique demonstrates high internal validity (Trochim & Kane, 2005). The construct development phase of the study demonstrates how to generate a ‘fit for purpose tool’ for exploration of OC under an interpretative epistemology. The OC concept mapping exercise was undertaken with a selected group of individuals representing the different levels of work within pharmacies. Views between individuals about OC may vary and based on this, the OC may be different in different community pharmacies. There will need to be a phase of testing of the transferability of the OC construct amongst different pharmacy service models. Likewise, purposive sampling was used to engage selected individuals across multi-stakeholder groups to develop the OE construct. The OE concept mapping exercise provided a snapshot of perceived OE amongst this group, so it is not known to what extent the same procedure would produce the same results if repeated with different members of the representative stakeholder groups. Despite the broad range of statements generated, for the same reasons as the OC exercise, caution is required in generalising the OE construct within other health systems.

The effectiveness phase of the study provided a preliminary model which allowed the concept of OE to be more fully explored within case sites, particularly with respect to the influence of OC. Wider stakeholder groupings have yet to be re-engaged as part of a post study plan. Determining the level of generalisability of the OE construct amongst larger cohorts within each multi-stakeholder group will help to ascertain whether the OE construct will have application across the entire community pharmacy sector.

The exclusion of external actors

Community, consumer, patient and/or customer representatives were not included in this study. The main reason for non-inclusion was development of an effectiveness profile based on policy. The assumption was made that policy is expected to represent the needs of the New Zealand population, a population that is hard to define and one which will not be well represented by one or two people. The limitations of this approach are twofold. First, that which constitutes an effective community pharmacy could look different through consumer, customer, patient or community stakeholder input and it is unknown in what ways. This is an accepted aspect of interpretative research (J. P. Campbell, 1977; Lincoln & Guba, 1985) which is supported by the conceptualisation of OE as politically driven, decidedly judgemental and context-bound (Cameron, 1985; J. P. Campbell, 1977; Connolly, et al., 1980; Michalski & Cousins, 2000). The main limitation is that apart
from comparison, the OE construct may not be transferable across studies or settings. It cannot be assumed that community, consumers or customers will be in agreement with what the findings of this study describe as an effective community pharmacy. Second, and related to this, is the recognition that co-production of four-wall culture occurs, but that this finding is limited to the perceptions of one party in the co-production process (i.e., pharmacy staff and not customers). It cannot be assumed that customers/patients view the interaction in the same way. The implication for this limitation is that co-production may either not ‘exist’, or may be different from that interpreted through staff discussion. Future OC based studies will need to engage customers/patients.

The limitations of an ‘across case’ grand theory

The case site sampling frame was expected to control for the selection of a relatively homogeneous group of pharmacies in terms of being ‘top-end’ performers, based on policy-maker and professional pharmacy body expectation. Ultimately, this research has resulted in the formulation of an ‘across case grand theory’ which describes the nature of the relationship between OC and OE, as well as the relationship with the emergent construct VO. There are limitations in taking an across case approach, and to the building of grand, rather than middle theories (Frese, 2005). The limitation in this regard is the potential for different manifestation of cultures within groups, in and across these organisations, despite being homogeneous from the viewpoint of the sampling frame. Cultures have been described as integrated, differentiated and fragmented, depending on the level of manifestation of subcultures within organisations (Martin, 1992; Meyerson & Martin, 1987). There is the suggestion that organisations contain facets of each of the three cultures depending on whom one talks to (K. L. Gregory, 1983; Martin, 1992; Sackmann, 1992). The application of a social constructionist stance and the assumption that all members of staff are deemed to be ‘culture-bearers’ was the rationale for adopting Martin’s (1992) Three Perspectives. There is research to suggest that different cultures may be more or less successful when operating in stable versus unstable environments (Martin, 1992) and so it could be postulated that different OCs could influence the nature of the OC-OE relationship.

Despite adopting Martin’s (1992) Three Perspectives, this study did not aim to directly explore whether subcultures were present, and if they were, whether the manifestation of subcultures had any perceived influence on OE. Despite recognition of the possibility of subcultures, and the adoption of a cognitive metaphorical stance for OC, on reflection
this study was analysed through what Martin would describe as an integrated frame. This may be due to the fact that the study is positioned more toward the positivist end of the research spectrum than initially realised. A grand theory of the relationship between OC and OE has been developed across case sites based on the patterning of influences (Miles & Huberman, 1999). In this way, differences in the collective OC between sites and the potential for subculture effects within and across sites at different levels of role has not been the focus of this investigation and is not presented as part of the grand theory. There are limitations to this approach and the findings need to be considered in light of these.

The assumption was made that similar OC manifested across the six sites based on the homogeneous sampling strategy. Through the interviewing and transcribing process a sense was gained that the pharmacies were integrated. It is possible that in-depth analysis of subcultures may detect differences within and across the pharmacies. However, in lieu of further analysis, the assumption was made that these pharmacies were integrated and conclusions cannot be drawn from the current findings about the potential influence of subcultures on the effectiveness of these pharmacies. This work will be undertaken as one part of a future research agenda.

**Procedural limitations**

The development of OC and OE constructs are limited through non-attendance at the face-to-face brainstorming sessions. None of the invited pharmacy assistants attended the OC face-to-face brainstorming session. This is a limitation if one takes the stance that OC is carried in the minds of all staff in an organisation. This is particularly the case if OC is initially framed as differentiated with pockets of subculture, as opposed to being integrated and more homogeneous (Martin, 1992; Schein, 2004). The limitations around representation in the face-to-face concept mapping exercises are tempered by the fact that the OC construct was used within case site pharmacies and the clusters were used as anchor points for discussion about the influence of these dimensions of OC on OE.

From a logistic viewpoint, five of the 16 invitees did not attend the face-to-face OE meeting but the statement lists from three of these people were able to be integrated into the discussion by the author. It was expected that this approach would have little impact on the final outcome as it is acceptable that the brainstorming session be completed online using the Concept Systems™ software. The two invitees who did not attend were to represent the Pharmaceutical Society of New Zealand (PSNZ) and one of the two PHO
management representatives. PHO representation was in place with a second representative. Apart from comparison with the PSNZ future vision document it is not possible to be sure that the OE construct was well aligned with their view of an effective community pharmacy.

**Implications of this thesis**

There are four propositions which constitute the theory and this study contributes to the organisational science, health services, and pharmacy practice research literature. Not all findings have implications for each of theory, policy, and practice (Table 11) with implications for theory being generic, whilst implications for policy and practice being pharmacy context specific. Implications for future research include the organisational science, health services research and pharmacy practice literatures.
### Table 11: Summary of implications of this thesis

<table>
<thead>
<tr>
<th>Main finding</th>
<th>Implication for theory</th>
<th>Implication for policy and practice</th>
<th>Implication for future research</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>VO supersedes OE as organisational endpoint</strong></td>
<td>The value-laden nature of effectiveness is reflected through this thesis which supports the notion of ‘effectiveness in the eyes of whom’. There is support for ‘lumpers’ and ‘splitters’ whose role it is to determine whether or not related organisational constructs are different and in what ways.</td>
<td>The VO and OE constructs manifest differently suggesting that what owners and staff of community pharmacy value as organisational endpoints are different. The implication for policy and practice is that the OC orientates toward VO which is different from a wider multi-stakeholder grouping.</td>
<td>Future conceptualisation of organisational science and health services research will benefit from well defined constructs and designs that explore nuance and difference in explaining these constructs and the relationships between them. Research into the differences between internally and externally generated organisational outcomes would be beneficial. In the community pharmacy context, further research is required to understand the relationship between VO and OE and the perceptions of multiple-stakeholders towards these two constructs.</td>
</tr>
<tr>
<td><strong>The attainment of VO is contingent upon four-wall OC, co-production of OC, and OE manifesting as technical performance</strong></td>
<td>Contingent cultural theory holds true whether studying the relationship from a positivist or interpretive stances – the difference is the level of understanding of the relationship. OC boundaries appear to be extended through cultural co-production and attainment of VO is contingent upon this. OE manifest as technical performance aligns with the notion that effectiveness is about ‘the doing’.</td>
<td>The VO and OC constructs seem to be underpinned by the fact that community pharmacy is a business and a health care provider. This duality is manifest in the OC and there will be benefit in getting the balance right and managing the tensions. The notion of cultural co-production will be best taken into consideration as part of the policy development process.</td>
<td>Regardless of the study context, future cultural research is best to consider the potential for cultural co-production with external actors and research designs that can accommodate for this. In community pharmacy, cultural co-production will be better understood by including the customers’ viewpoint. The notion that subcultures may influence the OC-OE relationship warrants exploration, particularly as it relates to levels of work in the community pharmacy context.</td>
</tr>
<tr>
<td><strong>Dimensions of OE influence OC in recursive ways</strong></td>
<td>Findings reflect the movement of literature away from direct, causal unidirectional relationships which support the notion of linearity. No longer can the potential for recursive effects of OE on OC be pondered.</td>
<td>The focus of policy implementation in health care has been on the importance of OC in influencing OE. It will be important to make explicit the value of ‘being effective’ and supporting a cultural orientation that assists this.</td>
<td>All future OC research must take into consideration the recursive relationship. Point in time studies need to be extended through longitudinal approaches.</td>
</tr>
</tbody>
</table>
### Main finding

OC and OE are partially conflated and mutually constituted

### Implication for theory

OC and OE may not be able to be completely separable regardless of the approach taken to conceptualise and operationalise them. OC is the dominant construct.

It is no longer justifiable to study the nature of the relationship between OC and OE without framing the theoretical approach to include conflation, contingency, recursiveness, mutual constitution and OC as dominant.

### Implication for policy and practice

Partial conflation of OC and OE may complicate the policy-making process. Policy-makers and researchers will need to be more prescriptive about defining OC and OE, but also outline what they are and how this relates to policy-based outcomes expected at an organisational level.

### Implication for future research

Underpinned by the contingent and recursive relationships, all future research must take into consideration the potential that OC and outcomes are likely to be mutually constituted and conflated in some way.
Theoretical implications of this thesis

Based on comparison with the existing literature, there are implications of these study findings for academic theory. This study is the first pharmacy practice based culture-effectiveness theory and as such there are no pharmacy based OC-OE theories to compare this thesis with. However, the implications of this work for the organisational sciences and health services research literature and theories can be applied generically to the pharmacy practice literature.

Theoretical proposition 1: The emergence of VO

VO and OE are not one and the same in this study; they manifest in different ways and have different meanings for participants. The OE literature is fragmented as the result of non-consensus between academics (Cameron, 1985, 2005; J. P. Campbell, 1977; Connolly, et al., 1980; Martin, 2002) in part due to the socially constructed nature of OC and OE. This thesis agrees with those who advocate definition and appropriate labelling when conceptualising OC-OE studies. This thesis reflects the need for strong theoretical guidance and novel methodological approaches that deal with non-linearity when studying the OC-OE relationship (Ashkanasy, et al., 2000; Braithwaite, Hyde, et al., 2010; Davies, et al., 2007; Kernick, 2002, 2004a, 2004b; Mannion, et al., 2005; Scott, Mannion, et al., 2003a; Scott, Mannion, Marshall, et al., 2003; Wilderom, et al., 2000). This is expected to uncover emergent findings that can be discussed in relation to the original aims of the study.

This thesis is in agreement with Alvesson (2010), who suggests there are benefits in seeing constructs for what they are: for their differences and the understandings gained from these subtle differences and nuances in how they manifest. The findings of this thesis also give support to the ‘lumpers’ and ‘splitters’ whose role it is to determine whether or not related social constructs of an organisational nature are different (Braithwaite, Greenfield, & Westbrook, 2010; Braithwaite, Hyde, et al., 2010). In addition to the conceptualisation process, there is a need to be explicit when interpreting data and describing findings, about exactly what defines and constitute the social constructs studied and those constructs that emerge to represent organisational outcomes. There will never be complete consensus amongst academics, however the development of recognised, if not agreed, boundaries and definitions will provide better clarity.
The value-laden nature of effectiveness is also supported by this thesis, through the emergence of an effectiveness construct (VO) which was identified with, emphasised and valued by organisational members. The fact that this construct is distinct and different from the multi-constituent OE construct supports the notion of ‘effectiveness in the eyes of whom’ (Cameron, 1985; J. P. Campbell, 1977; Connolly, et al., 1980). Staff members valued different organisational outcomes from the multi-constituent stakeholder group and it is possible that this is due to the VO being an internally derived construct and the multi-constituent OE being perceived as an externally derived construct. This idea warrants further investigation. Linked to this is the need to address the question of ‘effectiveness in the eyes of whom’ for future OC-OE studies. Exploring the gap between internally generated constructs and those developed through multi-constituent representation may be as important for theory development as the dimensions that constitute each of these constructs.

Four-wall OC, the valuing of organisational outcome and the manifestation of OC to include orientation of the organisation in order to better achieve those outcomes (technical performance) supports the CVF and the contingent relationship reported by Scott, Mannion, Davies and colleagues (Theoretical proposition 2).

**Theoretical proposition 2: Contingent theory, dual manifestation and the notion of cultural co-production**

Corporate culture research and the popular press have been predicated on the notion that the relationship between OC and performance is direct, linear and causal and related to cultural strength (Deal & Kennedy, 1982; Denison, 1990; Deshpande, et al., 1993; Kotter & Heskett, 1992; Ouchi, 1981; Pascale & Athos, 1981). Denison and Mishra’s (1995) theory of the OC-OE relationship is a precursor to this thesis. Although Denison developed an inductive ‘bottom-up’ profile of OC, the theory of the relationship with OE was described in direct causal terms (Denison & Mishra, 1995). Health services researchers have moved away from the direct, linear causal relationships noting complex contingent and recursive relationships are more likely to occur (Mannion, Davies, Harrison, Konteh, Greener, et al., 2010; Mannion, et al., 2005). Health services research has been dominated by use of the CVF and this thesis mirrors the CVF through taking a different approach to the framing of OC, OE and the nature of the relationship between them. Alongside the CVF, the findings of this study also reflect OC as the dominant construct and support the literature regarding contingent cultural theory (Cameron &

This thesis suggests the contingent theory stands true whether studying the relationship between OC and OE through a positivist or predominantly interpretive lens. The difference is how, and in what ways the relationship between OC and OE is described. Within the organisational science literature, the relationship has been described as linear and directly causal (Ashkanasy, et al., 2000; Wilderom, et al., 2000). In this way the relationship is identified as existing, but is less well understood in terms of what ways OC may influence OE. In health, some studies identify causative factors and links while others do not (Scott, Mannion, Marshall, et al., 2003). For the studies that do not show a relationship, it is possible that this has much to do with the methodological challenges (Ashkanasy, et al., 2000; Davies, et al., 2007; Kernick, 2004a; Scott, Mannion, et al., 2003a; Scott, Mannion, Marshall, et al., 2003; Wilderom, et al., 2000) and the framing of the constructs and the investigation of direct causal relationships, where the nuances of the OC-OE interplay have not been able to be identified (Martin, 2002).

This thesis aligns with Martin’s (2002) idea that the lack of link is likely due to the level of dynamic interplay between OC and OE. There is significant crossover of influence of specific dimensions of OC on the attainment of VO in this study (Appendix 5). That is, major influences of OC on VO include the internal cultural orientation, cultural co-production, and technical performance. OC is about nuance and this is illustrated by the complex interplays demonstrated in the cognitive maps across all cultural dimensions. Framing OC metaphorically and adopting an interpretative epistemology lends itself to exploring the influences, nuances and interplays that constitute the OC-OE relationship.

OE manifesting as technical performance supports the effectiveness definition within Mckenzie’s (2001) theory of performance and the socio-technical processes of care described by Scott et al. (2003a) where effectiveness manifests as the technical carrying out of prescribed tasks. The thesis that VO and OE are different aligns with the Donabedian (1966, 1988) model whereby OE manifests as process and outcomes manifest as VO. The difference between Donabedian and this thesis is the notion of linearity does not sit well and that OC has greater breadth than the structural component of Donabedian’s framework. The implication for theory is that effectiveness may not be the high level ‘umbrella’ term for organisational achievement as suggested by Campbell.
and Spray (1976) in their early work, but more the action orientation of an organisation as described by this thesis and other more recent work (Cameron, 2005).

The emergence of the VO construct and the notion that customers and patients can have an influence on the co-production of OC requires a refocus on theory to include the views of customers, patients, health professionals and any other external actors that could influence and shape OC. The boundaries of what constitutes OC appear to be extended through cultural co-production in this thesis and the attainment of VO is contingent upon this. Previous theory has predominantly focussed on cultural production through a narrow lens of organisational member as culture-bearer (Linstead & Grafton-Smith, 1992). This thesis calls for a widening of that view, whereby stakeholders are not categorised as part of the external environment of previous work, but bought into the fold of having significant influence in the emergence of four-wall culture and the subsequent attainment or otherwise of VO.

Theoretical proposition 3: Recursive relationships

Within both the contingent and recursive relationships, this study reflects the benefits in a movement of the health services research literature away from direct, causal, contingent, and strong unidirectional relationships between OC and OE. Much of the research into the OC-OE relationship has been predicated on this (Deal & Kennedy, 1982; Kotter & Heskett, 1992; Peters & Waterman, 1982; Schein, 1985) and later or contingent influences of OC on OE (Davies, et al., 2007; Mannion, Davies, Harrison, Konteh, Greener, et al., 2010; Mannion, et al., 2005; Scott, Mannion, Marshall, et al., 2003). An argument for reverse causality or recursiveness of OE influencing OC is beginning to emerge in the contemporary literature and mostly from a positivist stance (B. T. Gregory, et al., 2009; Schneider, Hanges, Smith, & Salvaggio, 2003).

There has been recognition of the need to gain a richer and deeper understanding of the OC-OE relationship within and external to the health care sector (Ashkanasy, et al., 2000; Braithwaite, Hyde, et al., 2010; Davies, et al., 2007; Mannion & Davies, 2003; Mannion, Davies, Harrison, Konteh, Greener, et al., 2010; Mannion, et al., 2005; Martin, 2002; Schein, 1996; Scott, Mannion, et al., 2003a; Wilderom, et al., 2000). The aim is to better understand complexity, connectivity, recursive feedback, diversity and the existence of self-ordering rules that give systems the capacity to emerge to new patterns
of order within health care (Kernick, 2002). The work from this thesis reflects that notion.

This thesis strengthens the case against pure linearity in managing health services and in conducting OC based health services research (Freeman & Peck, 2010; Kernick, 2002, 2004a, 2004b). This thesis also provides warning against managing complex systems such as health care through a direct cause and effect view of the world. Based on the findings in this thesis and the work of prominent health services researchers (Braithwaite, 2006a; Braithwaite, Hyde, et al., 2010; Davies, 2002; Davies, et al., 2007; Hyde & Davies, 2004; Kernick, 2002, 2004a, 2004b; Mannion & Davies, 2003; Mannion, Davies, Harrison, Konteh, Greener, et al., 2010; Mannion, et al., 2005; Scott, Mannion, et al., 2003a; Scott, Mannion, Marshall, et al., 2003), it is difficult to justify undertaking OC based research which doesn’t take into account the potential for recursive relationships within the design.

Theoretical proposition 4: Partial conflation and mutual constitution

Health researchers following a more positivistic course have outlined the challenges of separating OC and OE as completely distinct and identifiable variables (Davies, et al., 2007; Mannion, Davies, Harrison, Konteh, Greener, et al., 2010; Scott, Mannion, Marshall, et al., 2003). These same researchers have called for the separation of OC and OE as distinct variables in order to allow the relationship between them to be determined. There is recognition of the need for a deeper and richer understanding of the nature of the relationship and the OC and OE constructs were intentionally separated in this study. Mannion et al. (2010a) highlight a concern of separation at the conceptual level, with the potential for one construct to sound suspiciously like the definition of another, dependent on how they are framed. That is the basis for the theoretical framework guiding this study.

The findings from this study reflect a degree of inseparability that occurs at the conceptual level, during construct development and through discussion about the nature of the relationship between OC and OE. Importantly, it was as difficult to separate OC and OE within this study which has adopted an interpretative as opposed to a positivist frame. Separation was attempted through an interpretative-based theoretical frame which in reflection was a more positivist approach than realised. This leads to the notion that OC and OE may not be able to be completely separable, regardless of the approach taken.
to conceptualising and operationalising them. Suggestion that significant energy be directed toward separating these constructs may be less relevant if complete separation, as previously thought is not possible (Davies, et al., 2007; Mannion, Davies, Harrison, Konteh, Greener, et al., 2010; Scott, Mannion, Marshall, et al., 2003). The implication of this finding is that previous studies may not have been able to identify a causal relationship between OC and OE, due to this overlap amongst the constructs. In future, theoretical frameworks for OC-OE studies must take into account the potential for conflation and methods will need to be developed and adopted which allow the researcher to manage this degree of ‘blurriness’ in organisational constructs, including OC, OE and VO.

Mutual constitution implies that OC and OE shape each other over time and that simple linear causal relationships between OC and OE do not ever hold true. That is the case with this thesis and although the findings are limited to a point in time, the presence of contingent and recursive relationships suggests this is likely to occur. The fact that OC and OE are partially conflated reflects the difficulty in separating action and social structure which are recursively bound and mutually constituted (Braithwaite, 2006a; Huff, 2005). Social structures are constituted by human agency (i.e., action) and action is constituted by social structure (Braithwaite, 2006a). The implication for theory is that it is no longer justifiable to study the nature of the relationship between OC and OE without framing the theoretical approach considering conflation, contingency, recursiveness and as such, mutual constitution.

In this study, culture appears to be the dominant construct within a mutually constituted relationship between OC-OE. Cultural strength and dominance has underpinned corporate culture and the earlier academic management literature (Deal & Kennedy, 1982; Denison, 1990; Kotter & Heskett, 1992; Ouchi, 1981; Pascale & Athos, 1981). The cultural strength theory of improved performance has been criticised for being too simplistic an explanation for what is a complex arena (Ashkanasy, et al., 2000; Wilderom, et al., 2000). The implication of this thesis is that the cultural dominance theory appears to hold true whether studying the relationship from a pure positivist or an interpretative stance. This proposition is similar in its implication for theory as the cultural contingency theory. That is, OC is dominant within both frames but the interpretative frame has provided a richer understanding of the relationship between OC and OE, particularly with respect to the recursive relationship and dominance of OC.
There is also implication for more contemporary theory. Hyde and Davies (2004) suggest OC may influence performance but that OC and performance are emergent properties of service design. Central to their idea of service redesign was the notion that service users are co-producers (with staff) of both OC and organisational performance. Hyde and Davies call for a better understanding of how such co-production processes are moderated by design configurations within other health care contexts. This thesis presents subtly different findings from Hyde and Davies. In this thesis, OC emerges as the dominant construct (see Theoretical proposition 4) and not as a manifestation of a specific service design. The implication for theory is that conceptually at least, this thesis differs from their stance and this may be part of the reason for the subtle difference between the study outcomes (i.e., conceptualisation of constructs has the potential to significantly impact on findings and therefore all OC-OE studies need clear theoretical frameworks) (Wilderom, et al., 2000). Although there is the realisation that service design is important within this thesis, the idea that OC and performance emerge out of service design configurations is not fully supported, conceptually or through interpretation of data.

**Implications of this thesis for policy and/or practice**

Community pharmacy is the context of this study and as such implications of the findings for policy and practice relate mostly to that environment.

**Theoretical proposition 1: A multi-stakeholder OE profile is different from outcomes valued by staff**

There was not a model of organisational effectiveness for community pharmacy available prior to study initiation, hence one was developed. It is interesting to consider the policy implications of the comparative OE and VO constructs. It is also worth comparing the expectations for community pharmacy from policy-makers and professional bodies available at the time of study initiation.

The OE construct includes the seven distinguishing features of what Galbraith (2007) calls ‘a world class pharmacy’ which was developed through interpretation of separate discussions with stakeholder groupings in the UK. The list outlined by Galbraith in her recommendation to the UK Government focussed on orientation toward wider information and service provision, being embedded within a community and health network and having competent and skilled staff. This thesis extends the policy-based
work of Galbraith through involving multiple interested stakeholder groups in the development of an OE construct using robust inductive techniques within a combined forum (Scahill, Harrison, & Carswell, 2010b).

The OE and VO constructs are distinct and different. The OE construct manifests as technical performance which suggests that what owners and staff value in terms of organisational outcomes may be different from other stakeholders. Helping people stay healthy and improving health where needed was the only VO represented by Galbraith’s list (Galbraith, 2007). The VO construct seems to be underpinned by the fact that community pharmacy is a business, it must be sustainable and domains such as customer retention, better health outcomes and financial viability, result in organisational longevity. The implication for policy and practice of this proposition relates to the re-professionalisation agenda for community pharmacy. This study involved six pharmacies selected through theoretical sampling as ‘top-end’, and so the transferability of findings to other pharmacies and generalisability needs to be cautioned. However, this study highlights that both OC and VO manifest with a dual focus on retailing and health care provision and OE manifests as technical performance. These sites were selected as progressive pharmacies, and the retail aspect of the business is a well entrenched aspect of the culture in all six sites. The implication for policy relates to implementation of enhanced clinical services and is centred on the fact that these top end pharmacies remain strongly retail centric. It is likely that pharmacies with different demographic, business and practice models such as those in shopping precincts could be even more retail centric and that the change required in order to re-professionalise could be significant.

Theoretical proposition 2: The attainment of VO is contingent upon cultural orientation

The attainment of VO is contingent upon influences of four-wall culture that manifests as:

- Customer is king.
- Attractive atmosphere in which to conduct custom.
- Central importance of trust.
- Great service providers: we meet need.
- Customer buy-in.
- An attractive atmosphere to work within.
- Fostered learning; an orientation toward academic challenge.
• Multi-level skills sets; structured triage and referral.
• The resolver of problems; the convenient one-stop shop.
• Perceptions about time; pharmacy structured as a free-talk shop.
• Pharmacy as a safety net; safety over speed.
• The place of money; being a responsible retailer.
• Better teamwork.
• The importance of access.
• Community pharmacy is legitimate; taking a multidisciplinary approach.
• Leadership orientation.
• Cultural dualism – retailer and health care provider.

The implication for policy implementation is outlined in the previous section. The implications for pharmacy practice relate to the attainment of better health outcomes. This is contingent upon these manifestations and having identified these, future energy will be well spent in nurturing them within community pharmacy. Understanding this contingent relationship and ‘gaps’ in OC through pattern matching (Scahill, Carswell, et al., 2010) is helpful when assisting with the shift in focus from retailer to health professional (Appendix 4).

Theoretical proposition 2: The attainment of VO is contingent upon cultural co-production

Historically, health care reform has focussed on structural change and service redesign (Davies, 2002; Davies, et al., 2007; Davies, et al., 2000). More often than not the consumer, client, patient has not been considered a strategic partner in health care delivery or performance (Hyde & Davies, 2004). A recent study by Konteh, Mannion and Davies (2011) highlights that health managers and patient representatives in the UK consider culture management and change to be integral to quality and safety improvement efforts. However, some differences were found in terms of what was more and less important between these two stakeholder groups. This suggests that patients, practitioners, health policy-makers and health managers need to be involved with the development and implementation of health policy and culture change initiatives. This thesis reflects the future need for this.

Attainment of VO is contingent upon the co-production of OC, particularly through interaction with customers and/or patients. The practice of looking after one’s customers
is well entrenched in these pharmacies however; future policy development and implementation research would benefit from including the consumer, customer, patient. In this manner, customer viewpoints about OC could be explored and what they value as outcomes could be compared with the expectations of pharmacy staff (VO) and of wider stakeholder groupings (OE). Addressing the gaps would assist a shift in future practice.

**Theoretical proposition 3: The focus of policy implementation has been on cultural alignment; what about the influence of OE on OC?**

OC is the dominant construct and OE manifests as technical performance in this thesis. Previously the focus of policy implementation in health care has been based around the importance of OC and understanding the impact on OE was considered paramount (Davies, et al., 2000). The theory in this thesis suggests that OE and technical performance have important influences on OC and subsequently the attainment of VO. From policy and practice viewpoints, it will be important to make explicit the value of ‘being effective’ and the expected positive benefits of this. This approach will be best implemented through the formulation of change management strategies.

**Theoretical proposition 4: Partial conflation and mutual constitution add complexity to policy making**

Partial conflation of OC and OE may complicate the policy-making process. There will be benefit from policy-makers and health service researchers being more prescriptive about defining OC and OE, but also to outline what constitutes these constructs and how this relates to policy-based outcomes expected at an organisational level across subsectors within health care.

**Implications of theoretical outputs for further research**

Implications of this study for future research span the fields of organisational science, health services and pharmacy practice research. Each of the propositions made in this thesis are discussed within the context of these fields. Application of organisational science concepts are underrepresented in the pharmacy practice literature, particularly organisational development and organisational culture (Scahill, 2008a; Scahill, Harrison, et al., 2009b). The literature is sparse and there are merits in following the aforementioned approach in order to broaden the literature through application of methods from a wider range of epistemological approaches. Pharmacy practice researchers have been relatively naive to the benefits of applying theories of
organisational science to their work (Scahill, 2008a; Scahill, Harrison, et al., 2009b). There is great opportunity to undertake research within both the community and hospital pharmacy sectors that is guided by frameworks borrowed from the organisational development literature.

The differences between organisational constructs warrants further attention

Future conceptualisation of organisational science and health services research will benefit from well defined constructs and designs that explore nuance and difference in explaining these constructs and the relationships between them. Further research into the differences between internally (VO) and externally generated organisational outcome constructs (OE) would be beneficial. Understanding difference would allow future effectiveness based studies to be framed to reduce semantic approaches which simply lump all constructs together which reduces clarity with respect to relationships between organisational constructs.

In the community pharmacy context, further research is required to understand the relationship between VO and OE and the perceptions of multiple stakeholders towards these constructs. Organisational theory based pharmacy practice research is in its infancy. Despite pharmacy having a dual focus of retail business and health care provider, far less work has been undertaken in this area by pharmacy researchers than need be. There are great opportunities to gain clarity through publication of conceptual and empirical pharmacy practice research (Scahill, 2008a; Scahill, Harrison, et al., 2009b). At the beginning of this project it became apparent that within both policy documentation, and research literature there were no frameworks for what constitutes an effective community pharmacy under current health policy, and a model was generated (Scahill, Harrison, & Carswell, 2010b).

As it turned out, this model was both intermediary and preliminary and further research is required to determine the views of larger cohorts of stakeholders to increase generalisability. OE and the emergent VO construct provide a framework to guide future research at both the organisational outcome and policy development levels. It will be important to know why internal capacity and traditional safety role are deemed most important while innovation, integration and provision of health promotion less so. This is particularly important with regards to health policy expectation in New Zealand (Dunne, 2010; Ministry of Health, 2001b, 2007; Ryall, 2007).
More work is also required to determine what the relationships are between the OE construct and the VO construct. The OE concept mapping exercise produced a rating scale which could be extended through the inclusion of multiple ratings (importance, relevance etc.) and applied to a larger cohort of pharmacies and their staff. This would help to identity whether there are gaps between multi-stakeholder policy-based expectations of what constitutes an effective community pharmacy and what pharmacy staff view as an effective community pharmacy. With this knowledge, pharmacy staff and policy-makers could be alerted to the differences with the implication for policy and practice being formulation of appropriate change management programmes for pharmacy (Graetz, Rimmer, Lawrence, & Smith, 2002; A. S. Roberts, et al., 2007).

Being both preliminary and emergent, determining where the OE and VO constructs fit into supporting performance indicator development for community pharmacy will also be important. Finally, taking an international perspective, these constructs could be used for cross-national analyses of the importance of various aspects of effectiveness within different health systems.

A co-production research agenda

The emergence of the VO construct and the notion that customers and patients can have an influence on the co-production of OC requires a refocus on future health-related OC studies. This should be the case regardless of context to include the views of customers, patients, health professionals and any other external parties that could influence and shape OC. In terms of cultural co-production in community pharmacy, there would be benefit in extending the work of this thesis and that of Feletto, Wilson, Roberts and Benrimoj (2010a, 2010b), through determining the optimal cultural orientation for a range of pharmacy practice and business models and the influence of cultural co-production within these settings. In this way the findings of this thesis would become more generalisable. Questions that could be answered include: How important is co-production of culture from the customer’s viewpoint?; What does it mean to them and in what ways do they feel they influence the OE of community pharmacy?; What are customer perceptions of the VO and OE constructs and what do they see as appropriate organisational outcomes? It is possible that different pharmacy practice and business models may identify with different VO and OE constructs. It will be important to determine whether different pharmacy models have different cultural orientation, and what the influence of co-production is in different pharmacy models.
Hyde and Davies’ (2004) finding that organisational performance is potentially co-produced is of interest, but was not explored within this thesis. The co-production of organisational performance by service users makes logical sense, particularly when considering the value-laden nature of OE. VO represents the organisational endpoints valued by staff in this thesis and discussion did not emerge that suggests customers co-produce these VO, or at least it was not explored in the analysis and interpretation. Further research is warranted in order to better understand this in pharmacy and other contexts.

The notion that subcultures may influence the OC-OE relationship

One of the limitations of this study is the development of a grand theory from multiple homogeneous case sites without analysis of the potential for subcultures. The notion that organisational subcultures may influence OE has appeared in the literature over previous decades (Martin, 1992; Meyerson, 1991; Meyerson & Martin, 1987). There has been a tendency to focus at only one level of culture (Braithwaite, Hyde, et al., 2010). Some researchers are of the opinion that OC is generated by leadership and infused through the ranks in a top down manner (Davis, 1984; Deshpande, et al., 1993; Schein, 1985, 2004). Behind this thinking is the idea that OC is an organisational variable, another factor that is uniformly shared and manifests as such. In this way, OC is able to be manipulated, for organisational gain as is the case with many other organisational factors. Other researchers conceptualise culture as a metaphor for the organisation. Culture is the organisation, the organisation is the culture. Within this conceptualisation the description of culture is dependent on who one talks to, which perspective is gained, and everyone matters (Martin, 1992; Meyerson, 1991; Meyerson & Martin, 1987).

Cultures have been described as integrated, differentiated and fragmented depending on the manifestation of subculture within an organisation (Martin, 1992; Meyerson, 1991; Meyerson & Martin, 1987). Martin (1992) suggests that integrated cultures reflect harmony and homogeneity with organisational wide consensus, consistency, clarity and the exclusion of ambiguity. The differentiation perspective involves: separation and conflict, inconsistency, consensus within subcultural boundaries and the channelling of ambiguity outside of subcultural boundaries. The fragmentation perspective manifests as multiplicity and flux, a world without simplicity, order and predictability, where the centrality of ambiguity is paramount. Martin highlights that each of these cultural perspectives has an influence on organisational effectiveness.
It is expected that organisations with integrated and differentiated cultures may be more successful operating in stable environments whilst fragmented cultures are more likely to achieve in unstable environments (Martin, 1992). An interesting question which is related to, but not explored in this thesis is whether, and in what ways, having integrated, differentiated or fragmented cultures may influence the effectiveness of pharmacies that practice within different environments.

**Investigating the recursive relationship through another lens**

Taking an interpretative approach to exploring the relationship between OC and OE at a single point in time, through in-depth interview is not without limitation. However, having established the likelihood of a recursive relationship through an interpretative lens, it provides impetus to study the recursive nature of the relationship within other health care and non-health contexts, through different epistemological stances, methodologies and methods. New approaches need to be thought about and adopted for studying the OC-OE relationship within all health contexts. No longer can the potential for recursive effects of OE on OC be pondered. All future OC research must take into consideration the recursive relationship and the likelihood of both conflation and mutual constitution.

In terms of community pharmacy, a longitudinal empiric approach studied over time will allow a better understanding of the emergence of cultures within high and low performing pharmacies (Mannion, Davies, Harrison, Konteh, Greener, et al., 2010; Mannion, et al., 2005), and whether they are different. Identifying emerging cultures from pharmacies that attempt to transform into different business models would be both beneficial to the sector and of interest to academia. The recursive relationship between OC and performance is being explored to some degree in the secondary care sector using longitudinal study designs (Mannion, Davies, Harrison, Konteh, Greener, et al., 2010), however more work is needed and the literature is scarce within the health sector, including the community pharmacy environment.

Two approaches could be taken to extend this work on the recursive relationship within the context of community pharmacy. Firstly, a more generalisable and empiric approach could be taken which includes a longitudinal design using validated cultural typologies such as the CVF (Cameron & Quinn, 1999; Quinn & Rohrbaugh, 1981). This is likely to require a refocus of epistemological stance from interpretative to positivist. Secondly, the
emergence of cultures over time could be studied through interpretative epistemologies and designs via observational or ethnographic means. Although these two approaches are juxtaposed, they will assist in identifying and understanding emergent changes in OC over time in pharmacies that adopt different service models and/or pharmacies with varying levels of performance.

**Exploring conflation and mutual constitution through other means**

When embarking on this PhD a decision was made to develop the theoretical framework and overall research design with separation of OC and OE within an interpretative epistemology. Davies and colleagues (2007) highlight the challenge in studying this area:

> Studying the culture and performance link in and across health care organisations poses substantial conceptual and methodological difficulties, not least in terms of conceptualising and operationalising both culture and performance. (Davies, et al., 2007, p. 48)

The search for a definitive OC-OE link has been dominated by objectivists working through a lens in which the relationship is viewed as direct, linear and causal. Within this frame it has been difficult to separate culture and effectiveness (Davies, et al., 2007; Mannion, Davies, Harrison, Konteh, Greener, et al., 2010; Scott, Mannion, Marshall, et al., 2003). Researchers taking a more subjectivist frame outside of health, suggest that viewing culture in this way is likely to be a major contributor as to why a link has not been made between these two constructs (Allaire & Firsio, 1984; Alvesson, 2002; Martin, 1992). This provided part of the impetus for undertaking the study and in part for the application of a more interpretative approach and far more to the left (positivist) of the continuum than realised.

The ontological stance for this study was founded on social constructionism, the epistemology–interpretative. This approach does allow for the separation of OC and OE as distinct constructs in order to explore the nature of the relationship between them. However, it did not become obvious until the end of the interpretation process just how pragmatic a stance has been taken through separating these constructs. OC and OE were separated as organisational constructs for two reasons. First, to take up the challenge set down by more positivist researchers suggesting the most difficult part of studying the OC-OE relationship is the separation of these constructs as distinct, through clear conceptualisation and subsequent operationalisation. Second, the culture and the
effectiveness literature imply that both culture and effectiveness are relatively slippery constructs and conceptually there is as much disarray of one as the other (Cameron & Quinn, 1999; Martin, 2002). OC and OE are socially constructed and by definition abstract and nebulous and framed as such (Scahill, Harrison, & Carswell, 2010a, 2010b; Scahill, Harrison, et al., 2009b). Individuals will have their own views of what constitutes OC and what constitutes OE. However, with the high level of disarray in the literature and the likely difficulties with individuals defining what they see as OC, a pragmatic stance was taken to develop the OC and OE constructs then to talk about these in the interview setting.

Proponents who sit more toward the subjectivist end of the objectivist-subjectivist continuum, but who follow the ontological and epistemological frame of this study would advocate for non-separation of these constructs with inductive development through interview. In this way there would be no preconceived idea of what constitutes OC and what constitutes OE and the freedom of pure social constructionism would be afforded. There are a number of methodologies which would support this approach, grounded theory and discourse analysis being two possibilities (Liamputtong & Ezzy, 2005).

**Community pharmacy culture manifests through dualism**

Community pharmacy operates as a business as well as a health care provider and so there are many avenues to study within this area. Determining how the tension of being retailer and being a health care provider might play out across different service delivery models within the community pharmacy sector would provide more generalisable findings than the tensions described by this thesis.

Even in top-end pharmacies, the retailer culture of community pharmacy is solidly ingrained, suggesting that the shift to a true primary care provider organisation may be a difficult one for many pharmacies that do not fit the demographic of an effective community pharmacy based on health policy. There are benefits in understanding how staff might manage this tension, particularly across the different models of community pharmacy that are emerging in New Zealand.

The idea of culture as paradox, and the tension between being retailer and being health professional would be worth exploring. As pharmacy continues to attempt to re-professionalise, knowing whether the pharmacy professional can continue to be retailers
and still be seen as true health professionals in the eyes of key stakeholders or whether these positions are mutually exclusive will be critical. The implications of this in terms of professional sustainability could be addressed through a number of research questions. First, would a health care-based community pharmacy look any different from that described by the OE construct and the VO construct in this study or from Galbraith’s (2007) UK policy-based model? Second, what are the potential funding mechanisms at a central government level that would relieve fiscal restraints contributing to this tension? The final and most critical question, if fiscal barriers to re-professionalisation where removed would the pharmacy profession be in a position to deliver on these expectations, or does the paradox hold true; community pharmacy can’t be a health professional without being a health retailer?

**Chapter summary**

This study set out to explore the nature of the relationship between organisational culture (OC) and organisational effectiveness (OE) within six New Zealand community-based pharmacies. Previous research in the organisational science and management literatures has adopted linear, causal and unidirectional approaches to studying the OC-OE relationship. Within the health sector there has been movement away from this, calling for a deeper, richer understanding. A view of patterns of culture and contingent relationships has largely replaced the notion of linearity. This study explores the OC-OE relationship through interpretive means providing an understanding of complex interactions.

Despite prior development of OE with multi-stakeholder groups, VO emerged as a separate construct of effectiveness superseding OE which manifest largely as technical performance, facilitated by cultural orientation toward process. The attainment of VO is contingent upon influences including the internal four-wall culture, co-production of OC with external actors, and technical performance. OE influences OC in complex, non-linear and recursive ways. Together, the contingent and recursive relationships support the mutual constitution of OC and OE. OC is the dominant construct and despite the development of OC and OE as separate constructs within an interpretative frame at the outset, these constructs emerge as overlapping and partially conflated.

The findings of this study reflect contemporary literature’s movement away from direct causal relationships to complex, non-linear and recursive interplays between OC and
organisational outcomes. Partial conflation and mutual constitution explains the difficulty found in previous studies of conceptualising and operationalising OC and OE as distinct. Emergence of the VO construct and the manifestation of OE as technical performance add to the literature on construct identity and to the ongoing debate about this. Understanding the contingent and recursive relationships in this study adds to the existing organisational science, health services and pharmacy practice literatures. There are implications for policy and practice in community pharmacy which hinge on the argument that the findings are transferable. It is possible that this is the case within ‘like’ sites, but further research is required across various pharmacy practice and business models in order to be able to generalise across the pharmacy sector.
Chapter 11: Conclusions

This study set out to explore the nature of the relationship between organisational culture (OC) and organisational effectiveness (OE) within six New Zealand community-based pharmacies. Valued Outcomes (VO) emerged to supersede OE as organisational endpoints whilst OE appeared as an intermediary construct, which manifest as technical performance. Complex contingent and recursive relationships were identified and OC and OE were found to be partially conflated and mutually constituted at both conceptual and operational levels. The following conclusions can be drawn from these findings: First, the movement of contemporary literature away from direct causal relationships to complex, non-linear and multi-directional interplays between OC and organisational outcome is well founded. OC was the dominant construct and this study reflects the notion that contingent theory of OC on effectiveness holds true under an interpretive epistemology. The notion that cultural co-production occurs with actors outside of the four-walls of the pharmacy suggests a need to rethink the boundaries of what constitutes organisation, in cultural terms. The identification of a recursive relationship supports mutual constitution of the OC and OE constructs while the influence of the emergent VO construct on either OC or OE remains unknown.

Second, regardless of whether positivist or interpretative approaches are adopted, culture and effectiveness may never be completely separable as organisational constructs. Constructs are abstract and not directly observable. As such, the desire for separation of culture and effectiveness when operationalising studies is likely to remain a challenge for positivist and interpretative researchers alike. Third, this thesis supports taxonomic ‘lumping and splitting’ over applying semantic rules to organisational constructs such as VO and OE, which are related, yet distinct. There are benefits in exploring all constructs for difference and nuance and this thesis reflects that notion.

Finally, as with any study, this thesis has raised as many questions as it has answered. There are a lot of unknowns and it is increasingly recognised that pharmacy practice researchers are relatively naive to the benefits of applying organisational theory to their research. This work assists with the adoption of theories of organisational science and provides the platform for further research in the area of culture and effectiveness in community pharmacy.
List of Appendices

Appendix 1: Options for operationalising organisational effectiveness (OE) ....................... 226
Appendix 2: Summary of conceptualisation of OC and OE in the literature ....................... 234
Appendix 3: The interview schema ..................................................................................... 238
Appendix 4: Pattern matching sub-study ............................................................................. 243
Appendix 5: Cognitive maps: cultural dimensions influencing effectiveness ................. 255
Appendix 6: Influences on the attainment of Valued Outcomes (VO) ............................. 264
Appendix 7: Cognitive maps of dimensions of effectiveness influencing culture ............ 276
Appendix 8: Dualism of organisational culture and valued outcomes .............................. 285
Appendix 1: Options for operationalising organisational effectiveness (OE)

Standard setting

Drawing on the evaluation literature from public services including local government, education and health standard setting warrants consideration as a framework for operationalising organisational effectiveness. The first obstacle to considering this framework is the debate as to whether evaluations are really considered to be research:

program evaluations, when well performed, borrow heavily from the scientific method. (Fink, Kosecoff, & Brook, 1986, p. 143)

Fink (1986), highlights that appraisals of merit benefit, or worthiness imply the use of standards, and indeed all program evaluations rely on them. Standard setting involves the selection of fair and credible standards which can be used to benchmark and change practice performance (Brennan & Douglas, 1998; Fink, et al., 1986; Gott, Murfin, & McSorley, 1992; Nowakowski, 1982). This type of framework has been utilised predominantly in the government utility services sector and to a lesser extent in health.

In a standard setting exercise for quality of care in Dutch general practice, an Advisory Board from the College of General Practitioners selected topics for standard setting. Small working parties of four or five experienced GPs and researchers developed a draft of each set of standards. The draft document was sent to 50 GPs who were asked to comment. After adjustments were made the standards were evaluated by an independent scientific committee and only ‘authorised’ if this group gave its seal of approval (Grol, 1990). Within the health sector, standard setting has been used predominantly within the disciplines of Occupational and Environmental Health and Safety (Robinson, 1989; Zielhuis & Wibowo, 1989). There is a sparse literature reporting the use of standard setting for professional services in health care, with a strong focus on quality standards with respect to professional practice (Bellin, 1991). Grol appears to follow a similar process (Grol, 1990).

There is no academic literature on the use of standard setting for OE construct development in the pharmacy setting. Standard setting has been used for a test of pharmacy practice knowledge, but this takes an individual practitioner focus not an
organisational wide view of effectiveness (D. W. Fielding, et al., 1996). In Australia, evaluative work has been undertaken to determine levels of integration of standards and guidelines in community pharmacy practices (Hattingh, King, & Smith, 2009). The framework for this evaluation was the Donabedian (1966, 1988) framework of structure, process and outcome previously discussed.

In New Zealand, a Standard for pharmacy services across New Zealand was published in April 2010. The Standard is expected to create a solid foundation to ensure that pharmacy services reflect good practice. The new Standard is part of the MOH audits of community pharmacy (from July 1st 2010). Previously audits were conducted using a number of standards developed in the 1990s. The Standard has a focus on outcomes and aims to ensure:

- That consumers receive safe services of an appropriate standard that complies with consumer rights legislation.
- That consumers receive timely services which are planned, coordinated, and delivered in an appropriate manner.
- That services are managed in a safe, efficient, and effective manner, which complies with legislation.
- That services are provided in a clean and safe environment that is appropriate for the needs of the consumer.

This Standard was developed by a committee of representatives from pharmacy and the wider health sector, using a consensus-based process through facilitated public input. The Standard was developed by Standards New Zealand which is the operating arm of the Standards Council, an autonomous Crown entity in New Zealand operating under the Standards Act 1988.

The beneficial aspects of standard setting as a framework for determining what constitutes an effective community pharmacy include the involvement of multiple stakeholders and the rigorous development process. Disadvantages include the reliance on consensus for a concept which is socially constructed, the focus on practice as the dominant activity and the time taken and expense to develop and certify. The focus on supply of good and safe services for consumers and them being clear about their rights is reasonably narrow. The development of a more broad-ranging Standard (based on the philosophy of effectiveness as being socially constructed) involving multiple
stakeholders including representatives from the case site pharmacies under study is not feasible for two reasons. Firstly, the time commitment for participants would be unreasonable and the timeliness of the output unsuitable. Secondly, and most importantly, the socially constructed nature of effectiveness suggests a level of non-consensus may occur and Standard Setting is not the best framework for managing complexity and paradox.

**Modified Delphi**

The Delphi technique was initially developed at the RAND Corporation in the 1950s (Dalkey & Helmer, 1963). In the literature, the Delphi technique has been applied in various fields such as program planning, health planning and needs assessment, policy determination, and resource utilization. Delphi has been used to deal with technical topics and seeks consensus, usually amongst a homogeneous group of experts. Pill (1971) summarises the nub of the technique as follows:

> ...a methodology for efficiently obtaining consensus from a panel of evaluators on questions which are shrouded in uncertainty and cannot be measured or evaluated in the classical sense. (Pill, 1971, p. 57)

The Delphi technique is conducted through the use of questionnaires to capture data and feedback is sought through multiple iterations with participants. A series of rounds is undertaken whereby participants work through an initial questionnaire. Responses are returned to the researcher who collects, edits and returns a statement of the position of the whole group, as well as the participants own position on each of the issues. This allows reflection by the individual participants, and over time consensus is not forced, it is elicited (Hsu & Sandford, 2007).

A modified Delphi approach has been used for exploring the effectiveness of not-for-profit organizations in the USA (Herman & Renz, 2004). The authors conceptually framed effectiveness as socially constructed and multi-constituent (organizational effectiveness is whatever multiple constituents or stakeholders judge it to be). This study confirms thinking with regard the limitations of adopting a Delphi approach for this thesis. Firstly, the Delphi process aims to elicit consensus whilst this thesis is guided by the notion that different stakeholders respond to, value and judge effectiveness, from different viewpoints. There needs to be room to move away from consensus-based models for socially constructed phenomena such as OC and OE. Secondly, Delphi is
reliant not only on consensus, but consensus amongst a homogeneous group of experts. The sampling frame for this thesis is divergent with such an approach. The multi-level (as in a group of individuals working at various levels in an organisation) and multi-constitute approach that underpins the conceptualisation of OE in this thesis does not easily fit with a group of homogeneous experts. If all leaders/owners of the case site pharmacies in this study were to develop the effectiveness framework, then that approach would work. In order to adhere to the multi-constituency approach, there is a need to include representation from all levels of the pharmacy workforce.

**Balanced Scorecard**

The balanced scorecard is an *a priori* framework which was originally designed to assist managers who want to be competitive and to add value to business in the long-term. The balanced scorecard involves a comprehensive range of measures that offer an extensive view of the business and provide information about decisions that have already been made (Graetz, et al., 2002).

The balanced scorecard approach aims to force organisations away from their tendency to focus on short-term financial indicators through a focus on four perspectives of activities. In this sense the scorecard provides a more holistic range of measures than just setting fiscal targets (R. S. Kaplan & Norton, 1992). The four perspectives include: (a) customer satisfaction – how do customers see us? (b) innovation and learning – can we continue to improve and create value? (c) internal business processes – What must we excel at? (d) financial results – how do we look to shareholders?

Such a four-pronged review is expected to assist leaders in organisations to establish strategic objectives in areas that not only promote the core capabilities of the organisation, but also tap into areas that will develop future capabilities (Graetz, et al., 2002). The assignment of indicator measures is very pragmatic. Managers are required to choose key indicators within each of the four perspectives. Arguments for use of the balanced scorecard include:

- The bringing together of disparate measures within a single framework
- Provision of a balance between internal and external measures
- Allows managers to see whether changes in one measure will be at the expense of others and generates a system wide focus
• Is customisable to fit different markets, product strategies and competitive environments

There is some flexibility through use of the balanced scorecard, in that organisations can choose the indicator goals and measures to suit their needs. There is the opportunity to focus on ‘hard’ fiscal endpoints as well as softer qualitative measures (R. S. Kaplan & Norton, 1992).

Although this tool may be effective for business management there are several limitations which preclude it as being the preferred framework for development of the OE construct in this thesis. The balanced scorecard has been designed for managers to determine effectiveness through the setting of goals and measures of those goals for the organisation. This implies that wider stakeholder groupings from within and external to the organisation are not significant and do not need to be consulted. There is no methodology which suggests how this framework might be used to engage a wider audience. Additionally, this framework is bounded by a purely positivist approach whereby all dimensions are expected to be able to be measured in some way and that the measures relate to the goals in a linear causal fashion. Finally, there is no ‘category’ or dimension of effectiveness for those ‘indicators’ which are not able to be easily forced into one of the four scorecard perspectives.

Donabedian framework

The first, and one of the most well known quality frameworks was published in 1966 (Donabedian, 1966). This model has guided three decades of study of the elements needed to evaluate and compare medical care quality. The application of Donabedians’ work has been extensive including: development of conceptual frameworks for quality of care performance in primary health care (Barr, 1995; S. M. Campbell, Braspennin, Hutchinson, & Marshall, 2002; Sibthorpe, 2004), pharmacy (R. A. Jackson, et al., 1975; Panyawuthikrai, et al., 2005) nursing (Mitchell, Ferketich, & Jennings, 1998) and addiction services (Roeg, et al., 2005).

The model contains the components of structure, process’, outcome for assessment of quality of care, this being the overriding effectiveness construct. Ultimately it is a health outcomes framework. There are several limitations to adopting this approach. Firstly, the focus is on quality of care and quality judgements are made in relation to professional activity whilst effectiveness judgements, on the other hand, are based much more on the
function of the institution itself (Cameron, 1985). Secondly, the perspective is essentially linear, assuming that structures affect processes, which in turn affect outcomes. There is little room for considering the dynamic relationships with effectiveness dimensions that not only act upon, but reciprocally affect, various dimensions (Mitchell, et al., 1998). Thirdly, Donabedian himself cautioned that outcomes measurement cannot distinguish efficacy from effectiveness, (outcomes may be poor because the right treatment is badly applied or the wrong treatment is carried out well), that outcomes measurement must always take into account context (factors other than the intervention may be very important in determining outcomes), and also that the most important outcomes may be the least easy to measure. As such, easily-measured but irrelevant outcomes are chosen (e.g. mortality instead of disability) (Donabedian, 1966, 1988). Finally, Donabedian also had misgivings about solely using outcomes as a measure of quality, but concludes that outcomes, by and large, remain the ultimate validation of the effectiveness and quality of medical care.

The problem with this conceptualisation is that outcome measures dominate whilst issues of structure and process may contribute significantly to quality of care outcomes (Roeg, et al., 2005) and not always in a linear fashion (Mitchell, et al., 1998). The Donabedian model may inform categories for structuring discussion about effectiveness dimensions or performance indicators, however it provides a construct which is underpinned by the principles of linear causality. A more inductive approach is required to develop a broad, holistic profile of an ‘effective community pharmacy’ which is multi-dimensional and allows for dynamism.

The Competing Values Framework (CVF)

The CVF was developed initially from research conducted on the major indicators of organisational effectiveness (Cameron & Quinn, 1999; Quinn & Rohrbaugh, 1981) and so it warrants discussion within this section. The CVF is introduced in Chapter 4 for two reasons. Firstly, because it is the dominant typology reported in the culture-effectiveness literature in health care. Secondly, although the CVF is a cultural assessment tool, it was developed from the notion of effectiveness not culture, and this warrants consideration for development of the theory of this thesis (Chapter 9). In answering the following questions (Cameron & Quinn, 1999) the research about effectiveness seemed to morph into research about culture and effectiveness:
Appendix 1: Options for operationalising organisational effectiveness (OE)

- What are the main criteria for determining if an organisation is effective or not?
- What key factors define organisational effectiveness?
- When people judge an organisation to be effective, what indicators do they have in mind?

Being the most commonly applied typology for cultural analysis in the health care literature, use of the CVF highlights the dominant positivistic slant of researchers in this field. The CVF began with the development of comparative organisational effectiveness criteria (Cameron, 1978; Cameron & Quinn, 1999; Quinn & Rohrbaugh, 1981) from a list of 39 indicators claimed to be representative of a comprehensive list of all possible measures of organisational effectiveness (J. P. Campbell, et al., 1974). Of course, this is contra to the conception of effectiveness as an abstract and higher level construct (J. P. Campbell, 1977). Nevertheless, the framework was developed by empiricists Quinn and Rohrbaugh who analysed the effectiveness indicators to see if patterns or clusters could be identified. What they found was that the 39 indictors clustered together to give rise to two main dimensions (Quinn & Rohrbaugh, 1981). One dimension differentiates effectiveness criteria that emphasise flexibility, discretion and dynamism, from criteria that emphasize stability, order and control. The second dimension differentiates effectiveness criteria that emphasize an internal, integration and unity, from criteria that emphasise an external orientation, differentiation, and rivalry (Cameron & Quinn, 1999).

In a matrix style typology, these two dimensions form four quadrants. Each quadrant represents a distinct set of organizational effectiveness indicators, but also four core cultural types (clan, adhocracy, hierarchy, market). Cameron and Quinn (1999) highlight that:

> These indicators of effectiveness represent what people value about an organization’s performance. They define what is seen as good and right and appropriate. The four clusters of criteria in other words, define the core values on which judgements about organizations are made...the dimensions and the quadrants produced by them appear to be very robust in explaining in explaining the different orientations, as well as the competing values that characterise human behaviour. The robustness of these dimensions and the richness of the resulting quadrants led us to identify each quadrant as a cultural type. (Cameron & Quinn, 1999, p. 31)
This framework creates an interesting amalgam of cultural and effectiveness aspects, and highlights the challenges and continued difficulty in separating these two constructs (OC and OE) both conceptually and operationally (Ashkanasy, et al., 2000; Davies, et al., 2007; Mannion, et al., 2005; Scott, Mannion, Marshall, et al., 2003).
Appendix 2: Summary of conceptualisation of OC and OE in the literature

The nub of the research question of this thesis is the nature of the relationship between OC and OE. As such, an understanding of how the relationship has been framed, and reported, is essential. How OC and OE have been conceptualised and operationalised within studies is important but also of secondary interest. As such the following summary is provided.
Table 12: Approaches to framing culture and effectiveness

<table>
<thead>
<tr>
<th>Label/Size</th>
<th>Description/Values</th>
<th>Culture focus</th>
<th>Variable/metaphor</th>
<th>Effectiveness construct</th>
<th>Proponents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resource based</td>
<td>Leads to a sustained competitive advantage</td>
<td>Rare, valuable, intra-organisational resources are managed</td>
<td>Variable</td>
<td>Financial</td>
<td>Barney (1986, 1991, 1997)</td>
</tr>
<tr>
<td>Cultural content</td>
<td>Humanistic cultural values Cultural norms</td>
<td>Advantageous humanistic values and norms</td>
<td>Variable</td>
<td>Financial Promptness of Care Customer focus</td>
<td>Rousseau (1990), Denison (1990), Argote (1989), Jackson (1997), Marcoulides &amp; Heck (1993)</td>
</tr>
<tr>
<td>Culture as a filter</td>
<td>Filters factors that influence effect</td>
<td>Culture</td>
<td>Metaphor</td>
<td>Financial</td>
<td>Siehl and Martin (1990)</td>
</tr>
</tbody>
</table>

Adapted and extended from (Scott, Mannion, Marshall, et al., 2003; Wilderom, et al., 2000) and literature review
Table 12 includes studies from within and external to the health-care sector, and together with Figure 23 and Figure 24, provide a summary of approaches to conceptualising OC and OE, within culture-effectiveness studies.

The majority of non-health care studies frame culture as a variable – an organisational factor, where cultural strength is thought to dictate outcome. OC has been represented by dimensions including: structure, values, leadership and management practices, strategy, norms, involvement, consistency, adaptability and mission (see Table 12, Figure 23).

**Figure 23: Framing of culture and effectiveness in non-health care studies**

The focus on organisational effectiveness has been hard endpoint indicators of a fiscal nature including: profitability, growth and return on investment, as well as strategic issues such as leadership effectiveness, market orientation, and innovation.

Within the health care literature, OC has mostly been conceptualised as a variable. The focus has been on assessing OC from the viewpoint of leaders and managers, and an integration approach has been taken where consensus of views on OC are expected through all levels of the organisation (see Table 12, Figure 24).
Dimensions of OC studied in health care have been numerous, and wide ranging, as depicted on the left hand side of Figure 24. OE has included hard endpoint performance indicators such as mortality and patient non-attendance rates. In addition to routinely collected hard data, softer indicators such as patient satisfaction have been included (right hand side of Figure 24). Despite the mix of indicators, none of the studies in health care have taken an inductive approach to the development of the OE construct.
Appendix 3: The interview schema

INTERVIEW SCHEMA QUESTIONS

PRE-INTERVIEW

Recap of the study after the first visit and time allowed for participants to read the OC and OE dimensions and view the OE Concept map

RECORDED INTERVIEW QUESTIONS

State
- Interview with - individual ID (i.e AB) and pharmacy ID (case site C)
- Date

DEMOGRAPHICS

Before we begin discussing the concepts of culture and effectiveness I would like to know more about you and the pharmacy you own or work in!

- You have listed you job title as ____________. Can you briefly tell me what your main role is?
- How long have you worked in community pharmacy?
- How long have you worked at ______________pharmacy?

CULTURE

Thinking about culture in general terms…

- If you had a short period of time (say 2 minutes) to tell someone the main way(s) people ‘think and do things’ (the organisational culture) at ____________ Pharmacy, what would you tell them?

Thinking about specific aspects of culture at ______________Pharmacy!

Staff from the six community pharmacies involved in my study have come up with the following description of organisational culture of community pharmacy in a focus group exercise (see Panel below). I also have a more detailed profile which I provide to you.
**Panel**

<table>
<thead>
<tr>
<th>Culture aspects</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Leadership and staff management</td>
</tr>
<tr>
<td>• Valuing each other and the team</td>
</tr>
<tr>
<td>• Free thinking, fun and open to challenge</td>
</tr>
<tr>
<td>• Trusted behaviour</td>
</tr>
<tr>
<td>• Customer relations</td>
</tr>
<tr>
<td>• External integration</td>
</tr>
<tr>
<td>• Providing systematic advice</td>
</tr>
<tr>
<td>• Embracing innovation</td>
</tr>
</tbody>
</table>

**ALSO SHOW THE FULL CULTURE PANEL**

I would like to have a conversation with you about some of these cultural aspects as they relate to ____________ pharmacy. I would like to understand your thoughts and feelings about these ‘cultural aspects’ through how you yourself experience life at ____________ pharmacy. I would like to understand how you think these cultural aspects might influence the effectiveness of ____________ pharmacy.

*We have enough time to talk about how four* of the cultural aspects might influence the effectiveness of ____________ pharmacy. Please select four that you yourself see as the most important cultural aspects to being an effective community pharmacy (as outlined in Panel 1).

- Why did you choose these four aspects of culture to talk about with regards being effective?
- For each aspect of culture you have chosen, how (in what ways) do you think that aspect might influence the effectiveness of ____________ pharmacy?

**THE PATTERN MATCHING DATA**

I would now like to discuss the information you provided from the *TWO* questionnaires you completed online. This discussion will help me to understand what you see as the typical (or normal, usual) culture at ____________ pharmacy and what a beneficial culture would look like for being effective (ideal) pharmacy. In this way we can look at the gaps between how we actually think and act and how we should think and act to be an effective community pharmacy.
Appendix 3: The interview schema

• Please look the Figure provided which shows a ladder graph (pattern match). It provides a picture of what you see as being typical in your pharmacy and what cultural aspects you think are beneficial to being an effective (or ideal) community pharmacy.

  • On the left hand side of the figure are the aspects of culture that are typical (normal or usual) of the pharmacy you work in. The top left hand side of the ladder is more typical, the bottom left hand side of the ladder is less typical

  • On the right hand side of the figure are the aspects of culture that are beneficial (helpful) to being an effective community pharmacy. The top of the right hand side of the ladder is more beneficial and the bottom of the right hand side of the ladder is less beneficial

*Figure (Individual culture pattern match diagrams to be shown here)*

• Why do you view ____________ and _______________ (the top two aspects on the right side of the ladder) as the most beneficial cultural aspects to achieving the profile of an effective community pharmacy?

• How do cultural aspects which you see as beneficial such as ___________ and ____________ become more typical at ______________ pharmacy? (N.B THE FIRST TWO POSITIVE GRADIENT SLOPES ON THE GRAPHS)

• How do cultural aspects which are less typical yet beneficial such as ________________ and ______________ become more typical at ________________ pharmacy? (N.B THE BIG GRADIENT CHANGES NOT ACCOUNTED FOR IN THE ABOVE QUESTION)

• FOR SS - ANY OTHER INTERESTING FINDINGS FROM THE PATTERN MATCHES
**EFFECTIVENESS**

Please take a look at the profile of an effective community pharmacy which has been developed by groups (stakeholders) who have an interest in community pharmacy (see Panel below).

**Panel**

<table>
<thead>
<tr>
<th>An effective community pharmacy is one that...</th>
</tr>
</thead>
<tbody>
<tr>
<td>• has a community focus and advocates for patients</td>
</tr>
<tr>
<td>• communicates and collaborates with other health care providers such as GP’s</td>
</tr>
<tr>
<td>• is an advocate for the benefit of medicines and healthy lifestyles</td>
</tr>
<tr>
<td>• takes a holistic (overall) approach to chronic disease. Involves itself in preventative medicine through identifying patients with a higher likelihood of disease through screening programmes and by providing health promotion and OTC products</td>
</tr>
<tr>
<td>• has a workplace environment and systems that support safe and effective workflows</td>
</tr>
<tr>
<td>• contributes to the safe use of medicines from supply through to the medicine being taken</td>
</tr>
<tr>
<td>• is staffed by skilled people who work collegially (i.e. work well together), has good management and is able to operate financially</td>
</tr>
<tr>
<td>• is innovative, takes opportunities early and is prepared to change</td>
</tr>
<tr>
<td>• is respected and integrated within the rest of primary care</td>
</tr>
</tbody>
</table>

**ALSO SHOW THE FULL EFFECTIVENESS PANEL**

Are there areas you yourself believe ____________ pharmacy is very good at?

- If yes,
  - which areas?
  - Does being effective in these areas have any influence on the way we think and act? (the aspects of organisational culture in panel 1)
    - In what ways does being effective at these things have influence on these aspects of culture?
- If the pharmacy was not effective in these areas would that have any influence on the organisational culture
• In what ways does not being effective at these things have influence on aspects of culture?

• Are there areas you yourself believe ____________ pharmacy is not very good at?

• If yes
  • which areas?
  • Does being less effective in these areas have any influence on ‘the way(s) we think and act?’ (the aspects of organisational culture in panel 1)
    o In what ways does not being effective at these things have influence on aspects of culture?
  • If the pharmacy was very effective in these areas would that have any influence on the organisational culture?
    o In what ways would being effective at these influence aspects of culture?

Thinking in overall terms please rate the effectiveness of ______________ pharmacy by placing a cross on the following ten point Likert scale

Not at all effective

Extremely effective

PHARMACY ID: __________________________

PARTICIPANT ID: ________________________
Appendix 4: Pattern matching sub-study

Pattern matching was initially undertaken to provide an anchor for discussion in the interview setting about organisational change as it relates to cultural dimensions, as well as the potential for interplay between the cultural dimensions. This section outlines the pattern matching method as an extension to concept mapping and provides the findings of this sub-study. As the thesis became less empiric and more propositions based, the pattern matching activities have assumed the place of a sub-study.

Development of the culture rating instrument

A process of piloting was undertaken as part of the development of the OC rating survey. In addition to feedback from the two project supervisors, 16 individuals were involved in indepth interviews to review the OC instrument including: pharmacist owners (n=5), staff pharmacists (n=1), pharmacy interns (n=2), pharmacy technicians (n=2), retail managers (n=1), shop assistants (n=5). The range of individuals selected was expected to align with those likely within case sites. The people invited were representative of, but did not work in, any of the case site pharmacies under study.

The focus of the pilot for the OC rating instrument was to determine whether the instructions were understood. Feedback was requested on the following:

- Whether the draft email for each of the two survey ratings was clear regarding the software log-in process?
- Whether modifications were needed to the invitation email to ensure participants understood that there were two separate surveys to complete, one week apart and that they would receive an invite to complete the second survey a week after the first survey was completed?
- That it was clear that participants have a set time in which to complete each of the two questionnaires?
- That it was clear to participants that, when completing ratings, it is their perception of what they see as important as typical or beneficial.
- That the summary profile of effectiveness was understood.
- Identification of any cultural statements that were not understood and how they would be best rewritten to ensure clarity.
- Whether the language used in the survey was appropriate to all levels of staff?
Improvements were made to the email invitation, after feedback from each pilot interview. In general, the email invitation was understood by most staff but the pharmacist owners had some concerns that the language was too complex for their less qualified employees. This was not reflected in the pilot discussion with shop assistants however, the decision was made to reduce the complexity of the instructions and to use shorter words. It was not clear in early drafts that there were two surveys to complete and so this was made plain. Instructions that were not relevant to the completion of the survey were removed. A statement around confidentiality was added, and the tone was changed to demonstrate the author’s appreciation of their participation. Request for participants own perceptions when completing rating scales was also made clearer.

In terms of the OC statements, each statement was clarified with respondents and against pilot notes made by the author. Grammatical changes were made on the recommendation of pilot feedback however, the tenets of the statements did not change, and so they were not forwarded to the original concept mapping groups for approval.

The method of pattern matching

Pattern matching involves the specification of a theoretical pattern, the acquisition of an observed pattern, and an attempt to match these two (Trochim, 1989c; Trochim & Kane, 2005). As such, pattern matching allows for the combination of any two measures (e.g., typical and beneficial ratings of cultural statements within or between groups).

This technique has been employed in a study of OC in a large New Zealand firm (Burchell, 2003; Burchell & Kolb, 2003). Pattern matching provides a visual comparison of patterns among the clusters of variables within statements (Burchell & Kolb, 2003). These ladder graphs are useful for quickly spotting disconnects between two measures (Michalski & Cousins, 2000). The results of a pattern match are represented both graphically (as a ladder graph) and numerically, as a correlation coefficient (Burchell & Kolb, 2003; Michalski & Cousins, 2000). The ladder graph is comprised of two vertical scales – one for each measure, joined by variably sloping lines, each corresponding to a labelled concept map cluster (in this case a labelled cultural dimension). If the match is perfect, all lines will be horizontal and the resulting graph resembles a ladder with the lines connecting the clusters having a zero gradient. In terms of numerical representation, the correlation coefficient associated with each pattern match can range between -1 and +1. The level of correlation is represented through a standard Pearson r (product-moment
Appendix 4: Pattern matching sub-study

correlation) between the average ratings of the two variables (Burchell & Kolb, 2003; Field, 2005; Michalski & Cousins, 2000). The Pearson $r$ is useful to describe the strength of relationship between two ratings, and in the case of this study, between typical and beneficial ratings for the same cultural statements in each cluster between the scales (Michalski & Cousins, 2000). The diagram on the left signifies a high level of match between clusters, on the right a mismatch, with a likely low correlation coefficient (Figure 25).

Figure 25: Pattern Matching

The rating phase

Following the piloting process, the final survey was uploaded, and activated within the web based system. All staff members within the pharmacy case sites were invited to participate, and following face to face consenting, they were forwarded a log-in and password by email. They were asked to complete two survey ratings (typical and beneficial) via an on-line web-based Concept System™ software package (Copyright 2004 – 2008, all rights reserved, Concept Systems Inc, Ithaca, USA). Participants were first asked to undertake the typical rating scale. One week later, the beneficial rating scale was uploaded onto their individual web profiles, and participants were asked to complete this second rating scale. Completing this scale required the participants to read the profile of an effective community pharmacy, and using the same items as on the
typical scale, to rate how beneficial each of the cultural statements are to achieving an effective pharmacy.

These ratings allow for pattern matching analyses, and provide the basis for looking at the perceived gap between how these manifestations of organization culture are typically experienced, and the level they would ideally need to be at, for the community pharmacy to be ‘effective’. This technique has not been utilised in pharmacy practice research or within other areas of health care to study culture, but has been successfully applied to other non-health care sectors (Burchell, 2003; Burchell & Kolb, 2003).

Participant demographics

Forty seven participants (n=47) were invited to undertake the pattern matching exercise and all agreed to participate resulting in a 100% response rate. Participant demographics are outlined in Table 13. The case site pharmacies varied in terms of size but included the common characteristic of being community-based. The pharmacist cohort in this study aligns with recent New Zealand surveys reporting the pharmacist workforce (Pharmacy Council of New Zealand, 2007; Seahill, Harrison, & Sheridan, 2009). Pharmacist participants were mainly women, of New Zealand European decent, and nearly 20% (18%) of the sample were over the age of 61 years, reflecting the aging pharmacist workforce. Although workforce statistics for pharmacists report different variables from a workforce demographics survey of pharmacy staff, reasonable alignment is observed. The naturopath/homeopath is a qualified pharmacy technician who is trained in natural remedies and identifies more with that area of practice.
Table 13: Participant demographics culture rating

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (years)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than 21</td>
<td>3</td>
<td>6.0</td>
</tr>
<tr>
<td>21 to 30</td>
<td>14</td>
<td>30.0</td>
</tr>
<tr>
<td>31 to 40</td>
<td>7</td>
<td>15.0</td>
</tr>
<tr>
<td>41 to 50</td>
<td>14</td>
<td>30.0</td>
</tr>
<tr>
<td>51 to 60</td>
<td>4</td>
<td>8.5</td>
</tr>
<tr>
<td>61 or over</td>
<td>5</td>
<td>10.5</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>39</td>
<td>83.0</td>
</tr>
<tr>
<td>Male</td>
<td>8</td>
<td>17.0</td>
</tr>
<tr>
<td>Ethnicity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>New Zealand European</td>
<td>33</td>
<td>70.0</td>
</tr>
<tr>
<td>Maori</td>
<td>1</td>
<td>2.0</td>
</tr>
<tr>
<td>Chinese</td>
<td>7</td>
<td>15.0</td>
</tr>
<tr>
<td>Indian</td>
<td>1</td>
<td>2.0</td>
</tr>
<tr>
<td>Other</td>
<td>5</td>
<td>11.0</td>
</tr>
<tr>
<td>Roles</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shop assistant</td>
<td>6</td>
<td>12.8</td>
</tr>
<tr>
<td>Delivery person</td>
<td>1</td>
<td>2.1</td>
</tr>
<tr>
<td>Senior pharmacy assistant</td>
<td>4</td>
<td>8.5</td>
</tr>
<tr>
<td>Pharmacy technician</td>
<td>5</td>
<td>10.6</td>
</tr>
<tr>
<td>Permanent staff pharmacist</td>
<td>11</td>
<td>23.5</td>
</tr>
<tr>
<td>Working owner</td>
<td>7</td>
<td>14.9</td>
</tr>
<tr>
<td>Retail manager (non-pharmacist)</td>
<td>3</td>
<td>6.4</td>
</tr>
<tr>
<td>Pharmacist manager</td>
<td>3</td>
<td>6.4</td>
</tr>
<tr>
<td>Intern pharmacist</td>
<td>5</td>
<td>10.6</td>
</tr>
<tr>
<td>Other healthcare consultant – naturopath, homeopath</td>
<td>2</td>
<td>4.2</td>
</tr>
<tr>
<td>Pharmacy organisation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Case site 1</td>
<td>9</td>
<td>19.1</td>
</tr>
<tr>
<td>Case site 2</td>
<td>2</td>
<td>4.3</td>
</tr>
<tr>
<td>Case site 3</td>
<td>9</td>
<td>19.1</td>
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<tr>
<td>Case site 4</td>
<td>12</td>
<td>25.5</td>
</tr>
<tr>
<td>Case site 5</td>
<td>6</td>
<td>12.9</td>
</tr>
<tr>
<td>Case site 6</td>
<td>9</td>
<td>19.1</td>
</tr>
</tbody>
</table>

Source: (Scahill, Carswell, et al., 2010)

Pattern match outputs

In this study a total of 61 pattern matches were performed at multiple levels across the case sites including: individuals, collective cases, pharmacists, technicians, and pharmacy assistants/retail staff. Pattern matches at the individual participant level were utilised within the interview setting to facilitate discussion, as per questions outlined in the interview schema. The rationale for this approach was based on personal construct...
theory, and a discussion with participants about their lived world. The group and organisational level pattern matches are able to be used for further analysis that do not directly answer the nub of the research question but are interesting for further analyses or research.

The pattern match diagrams (Figure 26) show the difference between typical and beneficial ratings for each cultural cluster, as the aggregated responses of all participants within each pharmacy, using the method outlined previously. The mean Likert scale scores for the typical and beneficial ratings are all above 3.0. For the typical rating this suggests that all clusters are at least somewhat typical. The mean beneficial rating scales are all above 3.0 which infers that all cultural clusters are perceived at the very least to be somewhat beneficial for achieving effectiveness within all case-sites. The Pearson $r$ coefficients range from 0.71 to 0.90 within the case sites, suggesting a high level of correlation between the means of the two ratings (typical and beneficial) across all eight cultural clusters. This provides a summary of the ‘gap’ in cultural clusters across the six pharmacies.

Cultural dimensions that have slopes with gradients represent a mismatch between what is typically observed in that pharmacy, and what needs to occur for that pharmacy to be effective. These mismatches describe cultural gaps with a positive gradient suggesting that the cultural dimension is less typical than it need be for the pharmacy to be effective.
Table 14 highlights a broad range in the number of cultural clusters with gaps. The culture gaps range from two out of eight in one pharmacy (Case site 5) to seven out of eight in another (Case site 3).

The pattern match for five of six pharmacies highlight the need for ‘focus on external integration’ and ‘providing systematic advice’ to be more typical, which requires further exploration. This trend is closely followed by ‘leadership and staff management’ and ‘free thinking, fun and open to challenge’ with four of the six pharmacies being less typical than they should be to achieve the level of effectiveness outlined in the profile in Panel 7. With respect to embracing innovation, the pattern matches for three case site pharmacies (Case site 1, 2, and 4) require this to become more typical (an upwards gradient in the pattern match slope). In the three pharmacies with no cultural gap, staff rated embracing innovation relatively low on the beneficial scale compared with other cultural dimensions, which also warrants consideration.

**Case Site 1**
### Case Site 2

<table>
<thead>
<tr>
<th></th>
<th>Typical</th>
<th>Beneficial</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trusted behaviour</td>
<td>4.2</td>
<td>4.67</td>
</tr>
<tr>
<td>Customer relations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Providing systematic advice</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Free thinking, fun &amp; open to challenge</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Leadership and staff management</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Valuing each other and the team</td>
<td>3.25</td>
<td>3.83</td>
</tr>
<tr>
<td>Embracing innovation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Focus on external integration</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

$r = .9$

### Case Site 3

<table>
<thead>
<tr>
<th></th>
<th>Typical</th>
<th>Beneficial</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customer relations</td>
<td>4.26</td>
<td>4.3</td>
</tr>
<tr>
<td>Trusted behaviour</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Providing systematic advice</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Free thinking, fun &amp; open to challenge</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Leadership and staff management</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Valuing each other and the team</td>
<td>3.59</td>
<td>3.8</td>
</tr>
<tr>
<td>Focus on external integration</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Embracing innovation</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

$r = .71$
Appendix 4: Pattern matching sub-study

Case Site 4

* Typical * Beneficial

<table>
<thead>
<tr>
<th>Item</th>
<th>Typical</th>
<th>Beneficial</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trusted behaviour</td>
<td>4.41</td>
<td>4.44</td>
</tr>
<tr>
<td>Customer relations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Providing systematic advice</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Free thinking, fun &amp; open to challenge</td>
<td>4.49</td>
<td>4.58</td>
</tr>
</tbody>
</table>

Case Site 5

* Typical * Beneficial

<table>
<thead>
<tr>
<th>Item</th>
<th>Typical</th>
<th>Beneficial</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trusted behaviour</td>
<td>4.49</td>
<td>4.58</td>
</tr>
<tr>
<td>Customer relations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Free thinking, fun &amp; open to challenge</td>
<td>4.49</td>
<td>4.58</td>
</tr>
<tr>
<td>Providing systematic advice</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Valuing each other and the team</td>
<td>4.44</td>
<td>4.44</td>
</tr>
<tr>
<td>Leadership and staff management</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Embracing innovation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Focus on external integration</td>
<td>3.74</td>
<td>4.15</td>
</tr>
</tbody>
</table>

r = .9

r = .85
Case Site 6

![Graph showing pattern matches for each case site](image)

**Figure 26: Pattern matches for each case site**

Source: (Scahill, Carswell, et al., 2010)
Table 14: Cultural ‘gap’ by cluster and pharmacy case site

<table>
<thead>
<tr>
<th>Culture cluster</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>Total number of pharmacies with gaps by cluster</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leadership and staff management</td>
<td>✓</td>
<td>X</td>
<td>✓</td>
<td>✓</td>
<td>X</td>
<td>✓</td>
<td>4</td>
</tr>
<tr>
<td>Valuing each other and the team</td>
<td>X</td>
<td>X</td>
<td>✓</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>1</td>
</tr>
<tr>
<td>Free thinking, fun and open to challenge</td>
<td>X</td>
<td>X</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>4</td>
</tr>
<tr>
<td>Trusted behaviour</td>
<td>X</td>
<td>X</td>
<td>✓</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>1</td>
</tr>
<tr>
<td>Customer relations</td>
<td>✓</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>✓</td>
<td>2</td>
</tr>
<tr>
<td>Focus on external integration</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>Xa</td>
<td>✓</td>
<td>5</td>
</tr>
<tr>
<td>Providing systematic advice</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>X</td>
<td>5</td>
</tr>
<tr>
<td>Embracing innovation</td>
<td>✓</td>
<td>✓</td>
<td>a</td>
<td>✓</td>
<td>a</td>
<td>a</td>
<td>3</td>
</tr>
<tr>
<td>Total number of clusters reporting gaps by pharmacy</td>
<td>5</td>
<td>3</td>
<td>6</td>
<td>5</td>
<td>2</td>
<td>4</td>
<td></td>
</tr>
</tbody>
</table>

Source: (Scahill, Carswell, et al., 2010)

Notes.  
- ✓ gap  
- X no gap  
- a – low beneficial rating

In five of the six case site pharmacies, ‘trusted behaviour’ was the most typical and the most beneficial cultural dimension, represented by an almost perfect horizontal match in these pharmacies. In the remaining case site pharmacy (Case site 3) ‘trusted behaviour’ is perceived by staff to be the second most typical characteristic and the most beneficial cultural dimension.

Summary of this sub-study

Pattern matching is a technique which allows the culture of an organisation to be rated according to two or more criteria. In this thesis, pattern matching has been successfully employed to compare typical and beneficial aspects of culture for achieving a profile of an effective community pharmacy. It has been observed that cultural change involving increased focus on integrating within primary care and embracing innovation may be needed in the case site pharmacies. Unfortunately individual pattern matches were used to discuss culture ratings, rather than interpretations of a shared phenomenon such as the overall pattern match. The individual matches did provide an anchor point for discussion
but the analysis, and sense-making at a dimensional level became difficult when conceptualising culture as a shared phenomena. It would have been more appropriate, and useful, to have all staff talk about the pharmacy level pattern match, and to discern whether there were different views. The approach taken has limited the use of the pattern match data at an organisational level and in hindsight was a less useful approach. This is a limitation as well as a learning process.
Appendix 5: Cognitive maps: cultural dimensions influencing effectiveness
Appendix 5: Cognitive maps: cultural dimensions influencing effectiveness

Figure 27: Cognitive map: Customer relations (OC)

Cultural dimension: customer relations – the way(s) we ‘think’ and ‘act’
Figure 28: Cognitive map: Valuing each other and the team (OC)
Appendix 5: Cognitive maps: cultural dimensions influencing effectiveness

Figure 29: Cognitive map: Embracing of innovation (OC)
Appendix 5: Cognitive maps: cultural dimensions influencing effectiveness

Valued outcomes

Better health outcomes

Better place to be

Business goes well

Financial rewards

Technical performance

Running a good organisation requires good people that trust each other

Effective because trust each other and customers sense it

More effective individuals

More customer loyalty

Important how pharmacy portrays itself

Better workplace

Staff happier

Staff and customers believe they will get the right result

Co-production

Doing a favour recommending a product that helps

Co-production

Teas works for good of patient

Confidential talk centre

Co-production

Dr Less defensive

Freedom

Dr trust affords freedom; otherwise communication shutdown

Co-production

Customers: not a retailer

Customers don’t think of you as a retailer

Making sense

Co-production

Resolve issues

Sort issues quickly

Effective ways customers

Important how pharmacy portrays itself

More customer loyalty

More effective individuals

More customer loyalty

Figure 30: Cognitive map: Trusted behaviour (OC)
Appendix 5: Cognitive maps: cultural dimensions influencing effectiveness

Figure 31: Cognitive map: Free thinking, fun and open to challenge— the way(s) we ‘think’ and ‘act’
Appendix 5: Cognitive maps: cultural dimensions influencing effectiveness

Figure 32: Cognitive map: Providing systematic advice (OC)
Appendix 5: Cognitive maps: cultural dimensions influencing effectiveness

Figure 33: Cognitive map: Leadership and staff management (OC)
Appendix 5: Cognitive maps: cultural dimensions influencing effectiveness

Figure 34: Cognitive map: Focus on external integration (OC)
Appendix 6: Influences on the attainment of Valued Outcomes (VO)
Business viability

There are several labels which fall under this VO, considered collectively to be business viability including: a sustainable business, profitability, business goes well – financial rewards, financial profitability and viability, sustainability – keeping the business going, not making business mistakes, sustainability through external funding (Table 15).

Table 15: Attainment of business viability (VO)

<table>
<thead>
<tr>
<th>Cultural dimension</th>
<th>Attainment contingent with</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customer relations</td>
<td>Do your best for the customer and treat all customers the same are cultural orientations that assist the pharmacies in appealing to a wider range of people in the community thereby impacting on foot traffic and financial viability. Being a responsible retailer and selling only appropriate add-on treatments to prescription medicines means money may not change hands first time round but as a result people will come back.</td>
</tr>
<tr>
<td>Valuing each other and the team</td>
<td>Staff being valued breeds happiness. Staff believe if they are happy and confident they will work well both as individuals and within teams. This results in staff retention which I thought to aid profitability through familiarity by staff of process as well as the reduced need for continual staff training.</td>
</tr>
<tr>
<td>Leadership and staff management</td>
<td>Owners managing workplace boundaries and providing clarity around roles and defined work levels and more product being sold by having multi-level skill sets, individual merchandising skills and picking the good elements of staff assist financial viability. With role boundary definition, staff understanding the strengths of other staff and individuals staff members knowing their own limitations means that staff will seek the right person for the job. If management haven’t sorted role boundaries staff believe people and the pharmacy ‘isn’t going to run smoothly’. Can’t work as a team. Through improved staff retention (as a VO) less training is required and management get the best out of people.</td>
</tr>
<tr>
<td>Trusted behaviour</td>
<td>Trust is built with customer through not overselling and being a confidential free talk-shop. Staff believe that together staff and customers will get the right result and that customers don’t perceive these pharmacies to be rip-off retailers. Through the development of trust between patients and staff, patients will disclose full information. Providing the right advice, going the extra mile and tailoring to individual need through helping customers select the right product will influence the choice by the customer of pharmacy as first health care contact thereby impacting on pharmacy viability.</td>
</tr>
</tbody>
</table>
### Cultural dimension | Attainment contingent with
--- | ---
Free thinking, fun and open to challenge | Pharmacy owners ensuring intellectual challenges are set, developing learning cultures, and owners that encourage open minds helps to develop a pharmacy that is open-minded, happy and content. Staff highlight that pharmacies that have this underlying notion of academic challenge that the pharmacy becomes a good place to learn. Having intellectual challenge within the pharmacy influences sustainability. Staff are better able to answer questions from doctors and to interact with them. There is an increase in the credibility of pharmacy and legitimacy. One pharmacy owner suggests this intellectual challenge also firmly positions pharmacy for future business development, particularly with respect to enhanced cognitive services. With a focus on new ideas, retail merchandising and being a retail innovator influences financial viability.

Embracing innovation | Cultural orientations within this dimension are dual in nature: not just script dispenser – we are health providers, you don’t always have to pay and actually we are innovative health care merchandisers. Innovative merchandising is achieved through shop-based staff keeping things interesting for customers whereby attracting and retaining them. Through a focus on providing innovative services, there is automatic involvement of other service providers and pharmacy becomes part of the health service as a whole. By demonstrating pharmacy worth and showing what pharmacy can do, customers see pharmacy as being a legitimate provider of health care services. If pharmacy is seen as the first point of contact then there is an increased likelihood of public funding being directed at pharmacy for service provision.

Providing systematic advice | Having a value-added service orientation, providing free services initially, proving the benefits then using a proactive voice to advertise that the pharmacy has a product to sell is expected to help influence business sustainability in the longer term.

Focus on external integration | Being politically active and on advisory boards provides an understanding of pharma related changes in terms of subsidised brands of prescription medicines. In this way the owner is less likely to make business mistakes related to stock control. The pharmacy can spend more time on patient related clinical questions because less time is spent doing stock queries. More stake-holder focussed and supported in endeavours then there is an expectation by owners that external funding streams for the provision of innovative services in addition to the national dispensing contract will contribute to sustainability.
Appendix 6: Influences on the attainment of Valued Outcomes (VO)

**Attract and retain customers**

The VO labelled attract and retain customers was influenced by seven of the eight cultural dimensions. Attraction and retention of customers was not deemed to be contingent with a focus on external integration per se. However, a VO labelled patient satisfaction emerged in the discussion about having a focus on external integration and due to the likelihood of a close relationship between patient satisfaction and the retention of customers, the relationship is considered under this category of VO.

The attainment of attracting and retaining customers as a VO is contingent with the influences outlined in (Table 16) by cultural dimension.

**Table 16: Attainment of customer attraction and retention (VO)**

<table>
<thead>
<tr>
<th>Cultural dimension</th>
<th>Attainment contingent with</th>
</tr>
</thead>
</table>
| Customer relations     | Cultural orientation – that’s what we do all day, do your best for the customer, customers are integral to the business, customer is king.  
Not just a supermarket or a dairy – spend time with customers, a free talk-shop. Provide the right advice or referral.  
Advocate and listen, go the extra mile and put things right.  
Promote services that show customers we are not just selling to them.  
Comfortable environment for customers – staff happiness means it is a comfortable environment for customers and they have greater trust within a pleasant environment. |
| Valuing each other and the team | Good harmony in the shop results in team work which means it is a more comfortable environment for customers – customers are confident of the advice provided in a relaxed atmosphere.  
Teamwork is also influenced by staff being aware of each other’s skill-sets, being open minded and there being a learning culture.  
With teamwork there is communication about patients and patients feel important as a result and will come back.  
Internal referral amongst staff based on valuing roles and each other and trust means customers see they are getting the best possible care and come back. |
| Leadership and staff management | Development of relaxed atmosphere that helps gain patient confidence and trust. Relaxed atmosphere if staff happy and content. If leaders are open-minded, staff will be good to customers, will go the extra mile and in this way staff gain patients’ trust.  
From a merchandising stance the shop needs to look good and the assignment of staff roles by leadership is important in making the shop attractive for customers. |
<table>
<thead>
<tr>
<th>Cultural dimension</th>
<th>Attainment contingent with</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trusted behaviour</td>
<td>Staff autonomy and decision making underpinned by trust affords patient convenience and so customers come back. Customers who listen and are listened to are more confident. Customers feel confident with referral to well trained knowledge bearers within all levels of work in the pharmacies. Customers are satisfied with staff going the extra mile and meeting needs. Customer buy-in is gained through achieving the right result and the perception by customers that we are not rip-off retailers.</td>
</tr>
<tr>
<td>Free thinking, fun and open to challenge</td>
<td>Through leadership open-mindedness and flexibility then staff are open-minded, happy and content in their roles – the cultural orientation gotta be happy prevails. This puts the customer at ease and they feel comfortable returning. Boosted morale flows onto customers and they are confident of advice received within a harmonious environment. In this way it is more than just a job for staff, staff are more willing, more passionate and stronger advocates for the patient; staff will contact doctors and look into problems for customers and this demonstrates to the customer that staff care. The taken for granted assumption that money may not even change hands underpins this. Staff feel that customers perceive the pharmacy to be effective because of happy atmosphere, because staff are ready to look after customer needs.</td>
</tr>
<tr>
<td>Embracing innovation</td>
<td>Through a focus on providing innovative services the pharmacies are seen as not just being ‘pill counters’ but as health professionals helping with health-related problems. There is knowledge gained by providing innovative services and more split/specialised roles means the staff work better together. There is the opportunity to refer between levels of staff. Staff feel valued through being up-skilled but also through customers being referred to them as experts. Customers are loyal – product recommendations help patients to get better and alongside provision of great service means customers come back. Through opportunity to refer within the pharmacy and provision therefore of the best possible advice, the pharmacies are a one stop shop and staff believe because of this, customers will come back.</td>
</tr>
<tr>
<td>Providing systematic advice</td>
<td>The cultural orientations of having standard service levels, pharmacy as first provider, money doesn’t always change hands. Having standard service levels and consistent approaches means customers view the pharmacy as knowledgeable and it supports the pharmacy as expert knowledge bearer. This instils the customer with confidence, customers value the expert knowledge and they come back. Rapport develops by customers being listened too and questions being answered in a professional and knowledgeable fashion. Customer trust develops through being responsive to individual patient needs and health needs are met, outcomes are seen by customers and they come back. Trust also develops with the customer through confidential approaches within the free talk-shop environment of the pharmacy. Being a free talk-shop where money may not change hands suggests we are not rip-off retailers, we provide commercially independent advice. In this way customer’s value staff, customers know staff are not trying to get money out of them and will come back.</td>
</tr>
<tr>
<td>Cultural dimension</td>
<td>Attainment contingent with</td>
</tr>
<tr>
<td>-----------------------------------------</td>
<td>-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
</tbody>
</table>
| Focus on external integration (Patient satisfaction) | Influenced by patient convenience and ease in dealing with the pharmacy, but also the wider pharmacy-general practice interface  
Convenience thought to be mediated through (a) problem resolution (b) helping resolve customer script issues whilst they remain in the pharmacy (c) the ability to have prescriptions changed with ease due to prescriber access.  
Relationships and access are facilitated by: being a good relationship-maker and having good relationships with prescribers’ means interactions with doctors occurs more freely and respect is gained over time leading to legitimacy of pharmacy. This also demonstrates to patients that staff and the pharmacy is taking an interest in their health.  
A mandate for co-responsibility of care was also evident in half of the sites which manifest through (a) lack of patch protection by health providers (b) support for the pharmacy from other health care professionals (c) legitimacy through role recognition and, (d) health professionals seen to go hand-in hand in order to deal with patient issues and this demonstrates to the patient that within the pharmacy there is a keen interest in their health. |
Better health outcomes

Better health outcomes were seen to be influenced by seven of the eight cultural dimensions. Leadership and staff management was the dimension of OC where a potential influence on better health outcomes was not discussed (Table 17).

Table 17: Attainment of better health outcomes (VO)

<table>
<thead>
<tr>
<th>Cultural dimension</th>
<th>Attainment contingent with</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customer relations</td>
<td>Customer buy-in has significant impact on attaining better health outcomes and is mediated by a number of cultural manifestations which influence the orientation of staff towards customer and vice versa (a) staff being valued influences the atmosphere for staff interaction, customers feel comfortable within this atmosphere and trust develops (b) the trust and level of comfort with the pharmacy determines whether customers take on advice or not. If customers are comfortable with the atmosphere and trust staff then customers will listen. As such there is buy-in which influences the attainment of better health outcomes (c) with this atmosphere staff believe they can counsel properly and suggest they will be happy in providing advice and customers receiving the advice and trusting it – staff believe this helps to optimise patient medicine use and the attainment of better health outcomes (d) through being comfortable and having trust in the pharmacy customers will visit the pharmacy as a point of first contact for health care (and often to come and see a specific staff member) contributing to the ongoing attainment of better health outcomes (e) being able to spend time with customers is seen by staff as an important influence on the attainment of better health outcomes. This is possible through owners allowing more time to be spent with customers and structuring the pharmacy to allow for this through having adequate numbers of pharmacists. In this way staff are freed up and happier to counsel knowing other staff are backing them up. With more time being able to be spent with customers, staff are better able to undertake an advocacy role with problem resolution so that they do not have to return to the general practice surgery.</td>
</tr>
<tr>
<td>Valuing each other and the team</td>
<td>Also contingent with customer buy-in, staff believe ‘everyone in the pharmacy needs to get along to achieve customer buy-in. Staff believe customers feel more valued in a happy atmosphere and are more likely to take on advice. Safer practices through trust between staff is expected to lead to better health outcomes. An orientation toward academic challenge and development by owners of a learning culture means staff are empowered by training and support. Trusted delegation then allows a focus on the customer through prioritisation of activities. In this way customers are dealing with the person in the pharmacy who knows the most about an area.</td>
</tr>
<tr>
<td>Trusted behaviour</td>
<td>Processes that reflect ethical behaviour generate patient trust. Staff believe that patients feel they can disclose full information and pharmacy staff feel they are in a better position to help patients, to recommend and provide appropriate treatments thereby achieving better health outcomes. Financially successful pharmacy businesses are able to put staff structures in place which benefit health outcomes e.g. increasing the pharmacist to other staff ratio.</td>
</tr>
</tbody>
</table>
Appendix 6: Influences on the attainment of Valued Outcomes (VO)

<table>
<thead>
<tr>
<th>Cultural dimension</th>
<th>Attainment contingent with</th>
</tr>
</thead>
<tbody>
<tr>
<td>Free thinking, fun and open to challenge</td>
<td>Staff showing that they care about customers and wanting to help them, results in improvement in adherence to treatment regimens. Provision of the right advice influences better health outcomes and is facilitated by staff knowing what to say about product promotions and through improved practice underpinned by the challenge to learn new things and pharmacy having a learning culture.</td>
</tr>
<tr>
<td>Embracing innovation</td>
<td>Breaking the perception of not just being a pill counter – being a health professional. Staff suggest this could be changed through problem resolution and the customer thinking – they can help me. Owners note there is an evolving agenda for community pharmacy and it must position for new models of service provision. They believe that community pharmacy must embrace and promote new ideas in order to improve health outcomes. There was quite a bit of discussion within this cultural dimension about community pharmacy not being all about money and profit. The values of you don’t always have to pay, it’s not just about profit and professionalism reigns over money helps to break this customer perception that pharmacies are just pill counters. The customer perception is they help me out holistically. Customers embrace this and the degree of customer buy-in is thought by staff to improve adherence to treatment regimens and better health outcomes.</td>
</tr>
<tr>
<td>Providing systematic advice</td>
<td>Health outcomes are expected by staff to be improved through being responsive to individual needs and through meeting these needs staff also expect that customers will come back.</td>
</tr>
<tr>
<td>Focus on external integration</td>
<td>This is the dominant VO influenced by this cultural dimension. Attainment of better health outcomes is contingent with access to information and other providers. Better understanding of patient status is gained through access to clinical information by being a relationship maker. Rapid treatment through access to other providers and their services by the pharmacy and by patients directly influences better health outcomes. A holistic total patient solution is offered through co-responsibility of care. This is mediated through (a) trust developing between staff and other providers and legitimacy emerging through relationship development and a sense of purpose within the pharmacy (b) the pharmacy gets taken seriously and this further improves access. Legitimacy manifests through role recognition, GP empowerment of pharmacy, lack of patch protection by other providers, and pharmacy thinking about how it affects other providers. In several sites there was the realisation that other professions have come out of their silos and there is learning amongst disciplines. As a result better practice ensues and improved health outcomes follow.</td>
</tr>
</tbody>
</table>
Efficiency

The VO labelled organisational efficiency is a collective of similarly related outcomes which where emphasised and valued as endpoints by staff and include: efficiency and efficiency gains, inefficiency, productivity, energetic productivity, sector-wide efficiency gains, internal efficiency gains. This VO is influenced by six of the eight cultural dimensions. Customer relations and focus on external integration are the dimensions of OC where a potential influence on efficiency was not discussed (Table 18).

Table 18: Attainment of efficiency (VO)

<table>
<thead>
<tr>
<th>Cultural dimension</th>
<th>Attainment contingent with</th>
</tr>
</thead>
</table>
| Valuing each other and the team    | Cultural orientations underpinning efficiency include: contribution, capabilities, skills and knowledge; valuing of different roles; everyone needs to get along. Staff expect better teamwork to result in efficiency mediated by:  
  (a) Staff being happy, (b) the pharmacy having good harmony, (c) the shop being a better place to be (d) staff communicating and talking about customer issues (e) trusting other staff to know what’s going on (f) staff and owners being open-minded and learning from others (g) being aware of the skill-sets of other staff (h) the team valuing each other and the opportunity therefore of internal referral assists with improving team work.  
  When working better as a team - there is task alignment with the skill sets of individual staff members. Staff expect to see efficiency gains through this. Efficiency appears to be the valued organisational endpoint and effectiveness appears to be the technical performance – the carrying out of prescribed tasks.  
  According to staff, in order to work as a team everyone needs to get along, without stress and unhappiness in the workplace, things just get done, flow of work is better, the pharmacy runs smoother, runs easier. This results in efficiency gains. |
| Leadership and staff management    | Staff working better as a team  
  Owners recognising staff, trusting staff and treating them well. The confidence and individual belief gained from this is expected to assist staff to work better as a team  
  Confidence and self belief breeds happiness and contentment and this is thought by staff to contribute to better teamwork. Staff suggest they will be more likely to be hardworking, doing what they should be doing and getting on board with improvements and workflows.  
  Effectiveness manifests in this way, the technical carrying out of prescribed tasks and this improves efficiency as seen by pharmacy staff. Efficiency is the VO, the organisational endpoint.  
  Various levels of efficiency/inefficiency are associated with the three main leadership styles depicted in the pharmacies: supported self management, invisible leader with no provision for delegated authority and owners working alongside staff, pulling their weight. |
<table>
<thead>
<tr>
<th>Cultural dimension</th>
<th>Attainment contingent with</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trusted behaviour</td>
<td>Resolving issues quickly results in efficiency. \nStaff in several case sites suggest that there is a culture in place to run efficiently and this flows right down to shop staff. \nAn owner suggests that building a team around morals, honesty and ethics means things just flow better and the pharmacy is more effective and more efficient as a result.</td>
</tr>
<tr>
<td>Free thinking, fun and open to challenge</td>
<td><strong>Internal efficiency gains</strong> \nMistakes are able to be resolved quickly as a result of being a family and socialising together i.e. can be honest with each other and help each other to sort out mistakes. \n<strong>Energetic productivity</strong> \nThe cultural orientation – ‘gotta be happy’ underpins energetic productivity. Staff highlight that community pharmacy is an intense and serious atmosphere and a lot of time is spent in this environment by staff. Staff need to be able to laugh, to have fun and to be happy. This influences productivity by bringing a level of energy to the pharmacy.</td>
</tr>
<tr>
<td>Embracing innovation</td>
<td>Efficiency gains are expected through: not getting stuck in the ways things are done, staff looking at new ways of doing things, a desire to improve internally through looking externally, taking a technology focus.</td>
</tr>
<tr>
<td>Providing systematic advice</td>
<td>By having the most up to date and accurate information, teamwork is expected by staff to be more efficient.</td>
</tr>
</tbody>
</table>
Safety

The umbrella VO labelled safety comprises: patient safety, and safety and accuracy with respect to workflow and process. Five of the eight dimensions of OC are perceived to influence this VO. Customer relations; free thinking, fun and open to challenge and focus on external integration are the dimensions of OC where a potential influence on safety was not discussed (Table 19).

Table 19: Attainment of safety (VO)

<table>
<thead>
<tr>
<th>Cultural dimension</th>
<th>Attainment contingent with</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valuing each other and the team</td>
<td>Through valuing each other and the team practices are expected to be safer and there is the suggestion of improved patient welfare if staff can be relied upon and there is trust amongst staff themselves.</td>
</tr>
<tr>
<td></td>
<td>Staff self empowerment through training and support.</td>
</tr>
<tr>
<td></td>
<td>Managing customers in terms of the safety check process.</td>
</tr>
<tr>
<td>Leadership and staff management</td>
<td>Clients receiving the right product and/or service is the focus of this VO; being a responsible retailer selling the right product.</td>
</tr>
<tr>
<td></td>
<td>Being a responsible retailer is manifest through having time to spend with customers through leadership ensuring adequate staffing levels and the right mix of people.</td>
</tr>
<tr>
<td></td>
<td>Pharmacy as a free talk-shop (and owners allowing this) means access to the right information from patients through two-way listening. This requires staff to have a patient centred orientation and how patients are treated is believed to be impacted on by the happiness and contentment amongst staff themselves. Staff suggest that this is influenced by leadership recognising and trusting staff thereby building up individual confidence and self belief.</td>
</tr>
<tr>
<td></td>
<td>Owners are believed to have an influence on minimising mistakes; felt by staff to be influenced by how owners orientate themselves toward staff. There is a role in building confidence and individual self belief amongst staff. By doing so staff feel less nervous in dealing with different situations. With this confidence, the right amount of supervision and adequate staff levels, there is the perception that mistakes can be minimised.</td>
</tr>
<tr>
<td>Trusted behaviour</td>
<td>Provision of the correct medicine is contingent on cultural orientations of; trusted triage and referral, safety over speed and enabling workload split.</td>
</tr>
<tr>
<td></td>
<td>Staff suggest that hopefully the right decision will be made and the right product advice will be given due to: trusting each other to do a good job, having back-up, someone to help, referral to well trained knowledge bearers at all levels within the organisations.</td>
</tr>
<tr>
<td></td>
<td>Accidents are few and far between with the focus on safety over speed.</td>
</tr>
<tr>
<td></td>
<td>The belief that customers will no longer trust pharmacy staff if an error is made appears to drive the desire to be safe.</td>
</tr>
<tr>
<td>Embracing innovation</td>
<td>Looking at new ways of doing things and adopting a technology focus with safe processes is expected to result in safe service provision and patient safety.</td>
</tr>
<tr>
<td>Providing systematic advice</td>
<td>Pharmacy as a safety net through the provision of accurate advice by triaging to find out needs and not to fob patients off.</td>
</tr>
<tr>
<td></td>
<td>Taking the opportunity to refer to other providers, there is communication within a multi-disciplinary team in some sites to determine patient needs which provides another level of advice and a safety net for customers by these pharmacies.</td>
</tr>
</tbody>
</table>
**Job satisfaction**

Job satisfaction emerged as an organisational endpoint, a VO influenced by the single cultural dimension customer relations (Table 20).

**Table 20: Attainment of job satisfaction (VO)**

<table>
<thead>
<tr>
<th>Cultural dimension</th>
<th>Attainment contingent with</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customer relations</td>
<td>Influenced through valuing by customers of the service provided by pharmacy staff. When customers value staff then staff feel rewarded in the relationship. This is the case when customers return to a pharmacy for advice or to ask further questions about their treatment. There is a strong sense of satisfaction for staff when customers come back and the sense of job satisfaction is emphasised and valued. This sense of satisfaction is compared by some staff with other pharmacies they have worked in where the same sense of job satisfaction is not felt.</td>
</tr>
</tbody>
</table>

**Staff retention**

Staff retention is influenced by the OC dimensions, leadership and staff management and valuing each other and the team (Table 21).

**Table 21: Attainment of staff retention (VO)**

<table>
<thead>
<tr>
<th>Cultural dimension</th>
<th>Attainment contingent with</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leadership and staff management</td>
<td>Owners recognising, treating staff well and trusting them builds confidence and self belief amongst staff. Owners ensuring happiness and contentment amongst staff creates an atmosphere in which people want to work and they want to stay employees. Staff suggest they are happier through having processes in place that they know and understand. With the pharmacy functioning well, staff retention is maintained.</td>
</tr>
<tr>
<td>Valuing each other and the team</td>
<td>By having an orientation that supports new staff and values established staff, a family-like culture manifests and staff want to stay. In one case site this is the situation even though there is some angst over pay rises.</td>
</tr>
</tbody>
</table>
Appendix 7: Cognitive maps of dimensions of effectiveness influencing culture
Appendix 7: Cognitive maps of dimensions of effectiveness influencing culture

Does this effectiveness dimension influence organisational culture? – ‘in what ways’

Figure 35: Cognitive map: Contributes to the safe use of medicines (OE)
Appendix 7: Cognitive maps of dimensions of effectiveness influencing culture

Figure 36: Cognitive map: Has safe and effective workflows (OE)
Appendix 7: Cognitive maps of dimensions of effectiveness influencing culture

Figure 37: Cognitive map: Has skilled workers and effective management (OE)
Appendix 7: Cognitive maps of dimensions of effectiveness influencing culture

Figure 38: Cognitive map: Has a community focus (OE)
Does this effectiveness dimension influence organisational culture? – ‘in what ways’

- Perceived as a ‘time waster’
- Lack of total service
- Lack of buying in
- Buy-in not a help
- Necessary but not a help

Effective at being integrated within the rest of primary care

- How can pharmacy play a part?
- How to partner with primary care team
- How to work effectively with other service providers

Legitimacy

- Professional identity
- Dr’s receptiveness to ideas
- Value difference health professionals having different roles and skill sets

Co-production

- Practice different care
- Practice change
- Access

Value outcome

- Drive more business
- More time can influence change over time for benefit of patient

Customer satisfaction

- Better patient care
- More likely to refer & get referrals

Affects solutions able to be offered

Organisational culture

- Not seen as a time waster
- Teams provide more effective services
- Working within a multi-disciplinary team is innovative

Respect

- Dr respect what is said because we are effective at it
- Better customer experience

Organisational culture – the way(s) we think & ‘act’

Not effective at being integrated within primary care

- Lack of total service
- Lack of buy-in
- Perceived as a nuisance

Appendix 7: Cognitive maps of dimensions of effectiveness influencing culture

Figure 39: Cognitive map: Integrated within primary care (OE)
Does this effectiveness dimension influence organisational culture? – ‘in what ways’

Figure 40: Cognitive map: Respected innovator (OE)
Appendix 7: Cognitive maps of dimensions of effectiveness influencing culture

Figure 41: Cognitive map: Involved with health promotion/preventative care (OE)
Appendix 7: Cognitive maps of dimensions of effectiveness influencing culture

**Does this effectiveness dimension influence organisational culture? – ‘in what ways’**

**Organisational culture**
- Customer expectation
  - Liaise with Drs, nurses, caregivers, between all these people
  - Get the right or best (health) outcome for the patient
- Customer outcome
  - Everyone is busy, proactive & thinking outside the square
  - Pulls together the team: positive environment through communication
- Communication
  - Pick-up red flags: advocate for the patients safety
- Culture
  - Climate
    - Unhappy environment
      - You don't create a happy place to be
    - Communication
      - People aren't talking to each other about all sorts of things
      - Tends to hand the problem over
- Communication
  - Put on shelf
  - Not effective – Communicates and advocates
- Not effective – Communicates and advocates
  - Good for business & developing a rapport
  - Customers are going to come back
  - Reinforces
    - If you're good at it you're going to do it all the time
    - If managers allow it
    - If a manager doesn’t allow it
- Culture
  - Culture dominant construct
  - My culture is my comfort
  - Do it this way
- Culture
  - Communication
  - Culture controls time use
  - Things people working in silos
- Organisational
  -Effective – Communicates and advocates
  - Reaches out to what the customers really need
  - Make the customers feel better
  - If effective would it change the way you approach things?
  - Handed to patient
  - Handled over to shop staff

---

**Figure 42: Cognitive map: Communicates and advocates (OE)**
### Appendix 8: Dualism of organisational culture and valued outcomes

Table 22: Dualism of organisational culture and Valued Outcomes (VO)

<table>
<thead>
<tr>
<th>Cultural dimension</th>
<th>Cultural orientation manifest as</th>
<th>Valued Outcomes that emerge</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Customer relations</strong></td>
<td>Do your best for the customer&lt;br&gt;Customer is king&lt;br&gt;Its integral to your business&lt;br&gt;If you are valued...&lt;br&gt;We are not just a supermarket or a big mall pharmacy&lt;br&gt;Spending time with customers: pharmacy set up for this</td>
<td>A sustainable business&lt;br&gt;Attract and retain customers: they will come back&lt;br&gt;Better health outcomes&lt;br&gt;Job satisfaction</td>
</tr>
<tr>
<td><strong>Valuing each other and the team</strong></td>
<td>Culture, diversity, difference&lt;br&gt;Contribution, capability, skills and knowledge&lt;br&gt;Valuing different roles&lt;br&gt;Work-life balance&lt;br&gt;Support new staff, value established staff&lt;br&gt;Academic challenge, training and support&lt;br&gt;Everyone needs to get along&lt;br&gt;Being valued breeds happiness</td>
<td>Efficiency and productivity&lt;br&gt;Attract and retain customers: they will come back&lt;br&gt;Better health outcomes&lt;br&gt;Safety&lt;br&gt;Staff retention&lt;br&gt;Profitability</td>
</tr>
<tr>
<td><strong>Leadership and staff management</strong></td>
<td>The invisible leader/owner versus trusting delegator&lt;br&gt;Owner as worker: visible direction setter&lt;br&gt;Recognises staff, trusts staff, treats staff well&lt;br&gt;Set the standard&lt;br&gt;Managing workplace boundaries: clarity around levels of work&lt;br&gt;Systems designer&lt;br KNOWledge conduit with the external world</td>
<td>Efficiency and inefficiency&lt;br&gt;Staff retention&lt;br&gt;Safety&lt;br&gt;Attract and retain customers: they will come back&lt;br&gt;A sustainable business</td>
</tr>
<tr>
<td><strong>Trusted behaviour</strong></td>
<td>Trusted triage and referral: safety over speed&lt;br&gt;Enabling workload split&lt;br&gt;Providing the right advice-pharmacy first&lt;br&gt;Demonstrate ethical behaviour&lt;br&gt;Retail expert versus health care provider&lt;br&gt;Maintainer of confidentiality&lt;br&gt;Sector wide trust</td>
<td>Safety and accuracy&lt;br&gt;Efficiency&lt;br&gt;Customer retention: customers come back&lt;br&gt;Business goes well: financial rewards&lt;br&gt;Better health outcomes</td>
</tr>
</tbody>
</table>
### Appendix 8: Dualism of organisational culture and valued outcomes

<table>
<thead>
<tr>
<th>Cultural dimension</th>
<th>Cultural orientation manifest as</th>
<th>Valued Outcomes that emerge</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Providing systematic advice</strong></td>
<td>Value added service orientation&lt;br&gt;Standard service levels&lt;br&gt;Pharmacy as first provider of advice&lt;br&gt;Money doesn’t always change hands&lt;br&gt;Responsive to individual needs</td>
<td>Sustainability – keep the business going&lt;br&gt;Organisational efficiency&lt;br&gt;Customer retention: customers come back&lt;br&gt;Health outcomes: quality of life improvements&lt;br&gt;Safety: minimise mistakes</td>
</tr>
<tr>
<td><strong>Free thinking, fun and open to challenge</strong></td>
<td>Gotta be happy&lt;br&gt;Open expression of views&lt;br&gt;Leadership encouragement&lt;br&gt;A focus on new tasks and ideas&lt;br&gt;The challenge to learn new things&lt;br&gt;Not just a script (prescription) dispenser&lt;br&gt;We are a family</td>
<td>Energetic productivity&lt;br&gt;Sector wide efficiency gains&lt;br&gt;Financial profitability and viability&lt;br&gt;Attract and retain customers: they will come back&lt;br&gt;Improved health outcomes&lt;br&gt;Internal efficiency gains</td>
</tr>
<tr>
<td><strong>Focus on external integration</strong></td>
<td>Interaction with GP&lt;br&gt;Drive new ideas through connections&lt;br&gt;Be politically active in the wider sector</td>
<td>Patients have better health outcomes&lt;br&gt;Patient satisfaction&lt;br&gt;You don’t make financial mistakes&lt;br&gt;Sustainability: external funding streams&lt;br&gt;Profitability</td>
</tr>
<tr>
<td><strong>The embracing of innovation</strong></td>
<td>Can’t get stuck in what you do&lt;br&gt;Not just a pharmacy shop script dispenser: health providers&lt;br&gt;You don’t always have to pay&lt;br&gt;The focus on providing innovative services&lt;br&gt;Realise times are a-changin&lt;br&gt;Actually, we are innovative health care merchandisers</td>
<td>Efficiency&lt;br&gt;Safe patients through safe service provision&lt;br&gt;Better health for community&lt;br&gt;Sustainable business&lt;br&gt;Customer retention: they will come back&lt;br&gt;Business generating</td>
</tr>
</tbody>
</table>
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