

**THE EFFECT OF MARKET ORIENTATION, ENTREPRENEURIAL ORIENTATION,
AND INNOVATION ON ORGANIZATIONAL PERFORMANCE**

A Thesis submitted to the College of Graduate and Postdoctoral Studies

The University of Saskatchewan

In partial fulfillment of the requirements for the degree of

DOCTOR OF PHILOSOPHY

In the College of Pharmacy and Nutrition

Division of Pharmacy

University of Saskatchewan

Saskatoon

By

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Abstract

The practice of pharmacy in Canada is evolving, as pharmacists are taking on expanded roles in the healthcare system (Canadian Pharmacists Association 2016). These expanded pharmacy services are presenting professional practice and business opportunities. Given a pharmacy's dual objectives to serve the best health interests of patients while making a profit (Perepelkin and Dobson 2010), the expansion of services presents a unique opportunity.

This thesis explores how strategic orientations influence pharmacies' innovative tendencies and performance. The pilot study explores the influence of market and entrepreneurial orientations on financial and non-financial performance among 70 Saskatchewan community pharmacies. Market and entrepreneurial orientation were correlated, market orientation's effect on financial performance was positive and direct, and entrepreneurial orientation's effect on non-financial performance was positive and direct. The results of the pilot study along with semi-structured interviews with subject-matter experts were used to inform the hypotheses of a western Canadian study.

Interviews with eight community pharmacy subject-matter experts were thematically analyzed and showed support for the importance of market and entrepreneurial orientation in achieving both professional and business objectives. Additionally, subject-matter experts provided insight into how pharmacies measure both professional and business performance.

In the western Canadian study of 259 community pharmacies, it was found that market orientation was positively correlated with entrepreneurial orientation and had a positive and direct effect on improved health outcomes. Entrepreneurial orientation had positive and direct effects on business innovations, expanded service innovations, and financial performance.

Expanded service innovations had a positive and direct effect on improved health outcomes and improved health outcomes had a direct positive effect on financial performance.

Synthesizing the results of the three studies, it was evident that strategic orientations work together to directly improve performance and contribute to innovations that also enhance performance. Given the duality of community pharmacy objectives and the expanded scope of practice, employing both a market and entrepreneurial orientation may be a well-suited organizational strategy.

Acknowledgements

Many individuals have contributed to the research presented in this thesis. I wish to thank the following people:

My friend and supervisor, Dr. Jason Perepelkin, for his near-decade commitment to my scholarship. My friend, committee member, and unofficial co-supervisor, Dr. David Di Zhang, for his invaluable teachings and support. You are both my greatest academic mentors. Dr. Erin Ulrich, for her support, insight, and enthusiasm. Your unique perspective greatly enhanced this thesis. Dr. Eric Micheels, for his valuable theoretical and statistical contributions. Dr. William Doucette, for his willingness to serve as my external examiner and make the trip to Saskatoon for my defence.

The Saskatchewan College of Pharmacy Professionals and Manitoba College of Pharmacists for providing their e-mail database of pharmacy managers as well as the survey respondents and interview participants, as they ultimately making this research possible.

My wife (Robyn), daughter (Sophie), mother (Patricia), and father (Alan), for their love, support, encouragement, and commitment to my doctoral studies. Thank you, I love you.

Dedication

This Ph.D. thesis is dedicated to my girls. To Robyn, my wife. It was on one of our evening walks that you encouraged me to pursue doctoral studies. Thank you for your love and selflessness, I love you! To Sophie, my daughter. Always ask questions, be yourself, and dream big. Thank you for brightening my days, I love you!

Table of Contents

Permission to Use	i
Abstract	ii
Acknowledgements	iv
Dedication	v
Table of Contents	vi
List of Tables	xiv
List of Figures	xviii
Chapter 1: Introduction	1
Chapter 2: Literature Review	5
2.1 Community Pharmacy	5
2.2 Community Pharmacy in Canada	6
2.3 Pharmacists in Canada	8
2.4 Expanded Scope of Pharmacy Services	9
2.4.1 British Columbia	10
2.4.2 Alberta	10
2.4.3 Saskatchewan	10
2.4.4 Manitoba	11
2.4.5 Ontario	11
2.4.6 Quebec	11
2.4.7 Maritime Provinces	12
2.4.8 Newfoundland and Labrador	12
2.4.9 Territories	12

2.4.10 Pharmacists and the Expanded Scope of Practice	13
2.5 Expanded Scope of Practice Challenges.....	13
2.6 The Potential of the Expanded Scope of Practice.....	15
2.7 Market-Driven Versus Market-Driving Organizations.....	16
2.8 Market Orientation and Performance	17
2.9 Customer Satisfaction, Customer Loyalty, and Performance.....	21
2.10 Entrepreneurial Orientation and Performance	22
2.11 Market Orientation, Entrepreneurial Orientation, and Performance	28
2.12 Research Purpose	43
Chapter 3: Pilot Study	44
3.1 Hypotheses	44
3.1.1 Hypothesis One	44
3.1.2 Hypothesis Two.....	45
3.1.3 Hypothesis Three.....	46
3.1.4 Hypothesis Four	46
3.1.5 Hypothesis Five.....	47
3.1.6 Hypothesis Six.....	48
3.2 Methodology	49
3.2.1 Ethics Approval.....	49
3.2.2 Study Design	49
3.2.3 Questionnaire Development.....	49
3.2.3.1 Market orientation instrument.....	50
3.2.3.2 Entrepreneurial orientation instrument.....	50

3.2.3.3 Organizational performance instrument.....	50
3.2.4 Questionnaire Distribution and Data Collection	51
3.2.5 Data Analyses.....	51
3.2.6 Structural Equation Modelling	52
3.3 Results.....	53
3.3.1 Response Rate	53
3.3.2 Market Orientation	53
3.3.2.1 Market orientation frequency	53
3.3.2.2 Market orientation loading	55
3.3.2.3 Market orientation conclusion.....	60
3.3.3 Entrepreneurial Orientation.....	61
3.3.3.1 Entrepreneurial orientation frequency.....	61
3.3.3.2 Entrepreneurial orientation loading.....	65
3.3.3.3 Entrepreneurial orientation conclusion	70
3.3.4 Performance Instrument	70
3.3.4.1 Performance instrument frequency and loading.....	70
3.3.4.2 Performance instrument conclusion	77
3.3.5 Non-Response Bias	77
3.3.6 Demographic Variables.....	78
3.3.6.1 Respondent's role	78
3.3.6.2 Pharmacy manager's education.....	78
3.3.6.2 Pharmacy type	79
3.3.6.4 Monthly prescriptions filled	79

3.3.7 Structural Equation Modelling	80
3.3.8 Correlation and Regression	83
3.3.8.1 Correlation analysis	83
3.3.8.2 Regression analysis	84
3.4 Pilot Study Discussion	85
Chapter 4: Semi-Structured Interviews	90
4.1 Semi-Structured Interviews	90
4.2 Purpose.....	90
4.3 Methodology	90
4.3.1 Ethics Approval.....	90
4.3.2 Sample.....	90
4.3.3 Interview Protocol	91
4.3.4 Interview Process	91
4.3.5 Interview Transcription	92
4.3.6 Data Analyses.....	93
4.3.7 Researcher's Background.....	93
4.4 Thematic Analysis	95
4.4.1 Phase One.....	95
4.4.2 Phase Two	95
4.4.3 Phase Three	95
4.4.4 Phase Four, Five, and Six.....	96
4.4.4.1 Financial performance.....	96
4.4.4.2 Non-financial performance	98

4.4.4.3 Business and professional debate	100
4.4.4.4 Antecedents to performance	103
4.4 Semi-Structured Interviews Discussion.....	108
Chapter 5: Western Canadian Study	112
5.1 Hypotheses	112
5.1.1 Hypothesis One	112
5.1.2 Hypothesis Two.....	112
5.1.3 Hypothesis Three.....	113
5.1.4 Hypothesis Four and Five	114
5.1.5 Hypothesis Six and Seven	115
5.1.6 Hypothesis Eight	116
5.2 Methodology	117
5.2.1 Ethics Approval.....	117
5.2.2 Study Design and Scope.....	117
5.2.3 Questionnaire Development.....	118
5.2.3.1 Market orientation instrument	119
5.2.3.2 Entrepreneurial orientation instrument.....	119
5.2.3.3 Non-financial performance instrument	119
5.2.3.4 Financial performance instrument.....	120
5.2.3.5 Innovation instruments	120
5.2.4 Questionnaire Distribution and Data Collection	120
5.2.5 Data Analysis	121
5.2.6 Structural Equation Modelling	121

5.3 Results.....	121
5.3.1 Response Rate	121
5.3.2 Market Orientation	122
5.3.2.1 Market orientation frequency	122
5.3.2.2 Market orientation loading	124
5.3.2.3 Market orientation conclusion.....	128
5.3.3 Entrepreneurial Orientation.....	129
5.3.3.1 Entrepreneurial orientation frequency.....	129
5.3.3.2 Entrepreneurial orientation loading.....	131
5.3.3.3 Entrepreneurial orientation conclusion	135
5.3.4 Performance	136
5.3.4.1 Performance frequency	136
5.3.4.2 Performance loading	138
5.3.4.3 Performance conclusion	140
5.3.5 Innovation.....	140
5.3.5.1 Business innovation.....	140
5.3.5.2 Expanded service innovation	141
5.3.6 Non-Response Bias	141
5.3.7 Control Variables	141
5.3.7.1 Province.....	141
5.3.7.2 Respondent's role.....	141
5.3.7.3 Respondent's education.....	142
5.3.7.4 Pharmacy type	142

5.3.7.5 Pharmacy age	143
5.3.7.6 Pharmacy location	143
5.3.7.7 Monthly prescriptions filled	144
5.3.7.8 Number of pharmacists	144
5.3.7.9 Number of pharmacy technicians.....	145
5.3.7.10 Implementation of expanded pharmacy services	145
5.3.8 Correlation Analysis.....	146
5.3.9 Mean Comparisons.....	149
5.3.9.1 Province.....	149
5.3.9.2 Respondent's education.....	149
5.3.9.3 Pharmacy type	149
5.3.9.4 Pharmacy location	149
5.3.10 Structural Equation Modelling	150
5.3.10.1 Mediation models.....	150
5.3.10.2 Final model without control variables.....	159
5.3.10.3 Final model with control variables.....	162
5.3.11 Post-Hoc Analysis	166
5.3.11.1 Work ethic	166
5.4 Western Canadian Discussion	169
Chapter 6: Conclusion.....	176
References	179
Appendix 1 – Pharmacists' Scope of Practice in Canada	189
Appendix 2 – Pilot Study Ethics Exemption	190

Appendix 3 – Pilot Study Questionnaire	191
Appendix 4 – Pilot Study Cover Letter.....	200
Appendix 5 – Pilot Study Initial E-Mail	201
Appendix 6 – Pilot Study Reminder E-Mail.....	202
Appendix 7 – Semi-Structured Interviews Ethics Exemption	203
Appendix 8 – Semi-Structured Interviews Protocol	204
Appendix 9 – Semi-Structured Interviews Consent Form	207
Appendix 10 – Initial List of Codes.....	209
Appendix 11 – List of Themes.....	210
Appendix 12 – Western Canadian Study Ethics Exemption	212
Appendix 13 – Western Canadian Study Questionnaire (Saskatchewan)	213
Appendix 14 – Western Canadian Study Initial E-Mail (Saskatchewan).....	228
Appendix 15 – Western Canadian Study Initial Postcard (Alberta)	229
Appendix 16 – Western Canadian Study Reminder E-Mail (Saskatchewan).....	230
Appendix 17 – Western Canadian Study Reminder Postcard (Alberta).....	231

List of Tables

Table 3.1 Data Collection Timeline.....	51
Table 3.2 Market Orientation Frequency.....	54
Table 3.3 MO Item-Total Statistics	56
Table 3.4 First-Order MO Standardized Regression Weights	58
Table 3.5 First-Order MO Model Fit Indices.....	58
Table 3.6 Second-Order MO Standardized Regression Weights.....	60
Table 3.7 Second-Order MO Model Fit Indices	60
Table 3.8 Entrepreneurial Orientation Frequency	62
Table 3.9 EO Item-Total Statistics.....	64
Table 3.10 EO First-Order Standardized Regression Weights	67
Table 3.11 First-Order EO Model Fit Indices.....	67
Table 3.12 EO Second-Order Standardized Regression Weights.....	69
Table 3.13 Second-Order EO Model Fit Indices	69
Table 3.14 Performance Frequency	71
Table 3.15 Performance Item-Total Statistics	72
Table 3.16 Performance Component Matrix	73
Table 3.17 Importance of Performance Items.....	74
Table 3.18 Items and Corresponding Variables.....	76
Table 3.19 Performance Standardized Regression Weights	76
Table 3.20 Performance Model Fit Indices.....	77
Table 3.21 Respondent's Role	78
Table 3.22 Pharmacy Manager's Education	79

Table 3.23 Pharmacy Type	79
Table 3.24 Monthly Prescriptions Filled	80
Table 3.25 Structural Equation Model Standardized Regression Weights.....	82
Table 3.26 Correlations.....	82
Table 3.27 Pilot Study Model Fit Indices	83
Table 3.28 Pilot Study Model Squared Multiple Correlations	83
Table 3.29 MO and EO Correlations	83
Table 3.30 Regression Model Results	85
Table 4.1 Interview Timeline.....	92
Table 4.2 Combined Codes.....	96
Table 4.3 Antecedents of Financial Performance	103
Table 4.4 Antecedents of Non-Financial Performance.....	104
Table 5.1 Data Collection Timeline.....	121
Table 5.2 Market Orientation.....	123
Table 5.3 First-Order MO Standardized Regression Weights	125
Table 5.4 First-Order MO Model Fit Indices.....	126
Table 5.5 Second-Order MO Standardized Regression Weights.....	128
Table 5.6 Second-Order MO Model Fit Indices	128
Table 5.7 Entrepreneurial Orientation	130
Table 5.8 First-Order EO Standardized Regression Weights	133
Table 5.9 First-Order EO Model Fit Indices.....	133
Table 5.10 Second-Order EO Standardized Regression Weights.....	135
Table 5.11 Second-Order EO Model Fit Indices	135

Table 5.12 Performance	137
Table 5.13 Performance Standardized Regression Weights	140
Table 5.14 Performance Model Fit Indices.....	140
Table 5.15 Respondent's Role	142
Table 5.16 Respondent's Education	142
Table 5.17 Pharmacy Type	143
Table 5.18 Pharmacy Age.....	143
Table 5.19 Monthly Prescriptions Filled	144
Table 5.20 Number of Pharmacists.....	144
Table 5.21 Number of Pharmacy Technicians.....	145
Table 5.22 Implementation of Expanded Services Percent	145
Table 5.23 Correlation Matrix	147
Table 5.24 EO and FP Standardized Regression Weights	152
Table 5.25 EO and FP Model Fit Indices	152
Table 5.26 EO, BSINN, and FP Standardized Regression Weights	154
Table 5.27 EO, BSINN, and FP Model Fit Indices	154
Table 5.28 EO and IHO Standardized Regression Weights	156
Table 5.29 EO and IHO Model Fit Indices.....	156
Table 5.30 EO, EXPND, and IHO Standardized Regression Weights.....	158
Table 5.31 EO, EXPND, and IHO Model Fit Indices	158
Table 5.32 Structural Model's Correlations.....	161
Table 5.33 Structural Model's Standardized Regression Weights	161
Table 5.34 Structural Model's Fit Indices	162

Table 5.35 Squared Multiple Correlations.....	162
Table 5.36 Structural Model with FP's Correlations	165
Table 5.37 Structural Model with FP's Standardized Regression Weights.....	165
Table 5.38 Structural Model with FP's Fit Indices.....	165
Table 5.39 Squared Multiple Correlations.....	166
Table 5.40 Work Ethic Structural Equation Model Standardized Regression Weights	168
Table 5.41 Work Ethic Structural Equation Model Fit Indices	168
Table 5.42 Work Ethic Squared Multiple Correlations	169

List of Figures

Figure 3.1 MO First-Order CFA Model	57
Figure 3.2 MO Second-Order CFA Model	59
Figure 3.3 EO First-Order CFA Model.....	66
Figure 3.4 EO Second-Order CFA Model	68
Figure 3.5 Performance CFA Model	75
Figure 3.6 Pilot Study Structural Model	81
Figure 4.1 Financial Performance.....	97
Figure 4.2 Non-Financial Performance.....	100
Figure 4.3 Business and Professional Debate	102
Figure 5.1 MO First-Order CFA Model	125
Figure 5.2 MO Second-Order CFA Model	127
Figure 5.3 EO First-Order CFA Model.....	132
Figure 5.4 EO Second-Order CFA Model	134
Figure 5.5 Performance CFA Model	138
Figure 5.6 Final Performance CFA Model	139
Figure 5.7 EO and FP.....	151
Figure 5.8 EO, BSINN, and FP.....	153
Figure 5.9 EO and IHO.....	155
Figure 5.10 EO, EXPND, and IHO.....	157
Figure 5.11 Structural Model.....	160
Figure 5.12 Structural Model with FP	164
Figure 5.13 Work Ethic Structural Model	167

CHAPTER 1 INTRODUCTION

The practice of pharmacy in Canada is evolving. Pharmacists are taking on expanded roles as healthcare professionals (Canadian Pharmacists Association 2016). Pharmacists' scope of practice in Canada has expanded to include such activities as minor ailment prescribing, changing drug dosages, renewing prescriptions, administering injections, and much more (Canadian Pharmacists Association 2016). A pharmacy's involvement in the expanded scope of practice is dependent on the provincial or territorial regulatory framework as well as the organizational strategy to offer expanded services. The legislation of, and compensation for, expanded services differs based on the province or territory (Canadian Pharmacists Association 2016). Consequently, the implementation of such services has differed by region and by pharmacy. Within the regulatory framework, it is the individual pharmacy's decision to offer expanded services. Decisions to expand offering are thus dependent on an organization's strategic orientations, capabilities, and objectives.

The for-profit nature of community pharmacy is unlike many healthcare professions, as organizational objectives are twofold (Perepelkin and Dobson 2010). Based on the professional and business of objectives, pharmacy performance is multifaceted. In scholarly and applied works, Kaplan and Norton's (1992) balanced scorecard approach has been widely used to measure organizational performance, as it includes financial and non-financial metrics (Enwere, Keating, and Weber 2014). The balanced scorecard approach has been deemed one of the most significant management tools of the last century (Steele 2001; Zelman, Pink, and Matthias 2003). Kaplan and Norton's (1992) measure included four key performance metrics related to customers, internal processes, learning and innovation, and finance. The approach has been

commonly used, but continuously adapted and modified, to measure performance in healthcare (Zelman, Pink, and Matthias 2003; Chen, et al. 2006; Schoen, et al. 2006; Walker and Dunn 2006; Olden and Smith 2008; Enwere, Keating, and Weber 2014). Enwere, Keating, and Weber (2014) modified the original measure to include pharmacy-specific components including medication safety, pharmacy operations, education and research, and finance.

Some evidence would suggest Canadian pharmacists are successful at balancing their dual objectives and achieving organizational performance. Specifically, Perepelkin and Dobson (2010) found that a combination of both professional and business orientations works to serve the dual organizational objectives. As such, Perepelkin and Dobson (2010) found that pharmacists viewed professional and business orientations as important to successful practices given the commercial environment of community pharmacy. Another strategic orientation that has been shown to be important in pharmacy practice was an entrepreneurial orientation (EO). First proposed by Miller (1982), and now central to entrepreneurship theory, is the concept of EO (Covin, Green, and Slevin 2006; Rauch, et al. 2009). EO is an organizational proclivity toward innovating, being proactive, and taking risks (Covin, Green, and Slevin 2006). EO is an organization-level, as opposed to an individual-level, commitment to entrepreneurship (Lee, Lee, and Pennings 2001). The original Covin and Slevin (1989) EO instrument has been frequently adapted and modified (Rauch, et al. 2009). The most significant modification to the EO instrument was the inclusion of competitive aggressiveness and autonomy by Lumpkin and Dess (1996). Doucette and Jambulingam (1999) expanded on the works of Lumpkin and Dess (1996), creating a pharmacy-specific EO. Doucette and Jambulingam's (1999) EO included innovativeness, proactiveness, risk-taking, competitive aggressiveness, autonomy, and work ethic. EO has been linked to the implementation of innovative services, pharmacy practice

change, and pharmacy performance (Doucette and Jambulingam 1999; Iyer and Doucette 2003; Doucette, et al. 2012).

Unfortunately, the extant pharmacy EO literature has been limited to the U.S. Moreover, as compared to other industries, limited academic literature pertains to the explorations of strategic orientations and organizational performance in pharmacy. One prominent strategic orientation that has received little attention in pharmacy academic research is a market orientation (MO). Narver and Slater (1990) were the first to conceptualize and develop a measurement of MO. According to Narver and Slater (1990), MO is an organizational culture aimed at understanding the market. Specifically, Narver and Slater (1990) conceptualized MO as consisting of three behavioural components, customer orientation, competitor orientation, and interfunctional coordination. Customer orientation is an organizational understanding of, and focus on, its target market (Narver and Slater 1990). Competitor orientation is an organizational understanding of its competitors' strengths, weaknesses, and strategies (Narver and Slater 1990). Interfunctional coordination is an organizational dissemination of customer and competitor knowledge throughout all business units (Narver and Slater 1990). Overall, MO is an organizational-wide comprehension of market happenings. MO has been a dominant theme in marketing and business strategy for over three decades. However, little is known with respect to the effect of a MO in community pharmacy. Although not empirically tested, a market-oriented approach is conceivably applicable in Canadian community pharmacy.

A number of unanswered questions remain. For example, what strategic orientations will fulfill the dual objectives of Canadian community pharmacies? Is there an ideal combination of orientations that can improve both patient health and the bottom line? Given the changing scope of pharmacy practice, will entrepreneurial-oriented pharmacies partake in more

expanded services than less entrepreneurial-oriented pharmacies? Will market-oriented pharmacies that fully understand their patients' needs and how best to serve them, be better equipped to engage in the expanded services? Will the participation in expanded services lead to better patient health outcomes? Will pharmacies that engage in expanded services financially benefit from doing so? What is the link between improving patient health outcomes and the financial success of community pharmacies? This thesis attempts to answer these questions.

The next chapter is a review of the relevant literature, followed by the pilot study, semi-structured interviews, and the western Canadian study. The final chapter synthesizes the findings in a conclusion along with highlighting the academic and managerial implications.

CHAPTER 2 LITERATURE REVIEW

2.1 Community Pharmacy

After physicians and nurses, the largest group of healthcare professionals is pharmacists (Mossialos, et al. 2015). Globally, community pharmacists are expanding their role in the healthcare system (Mossialos, et al. 2015). In Australia, Canada, England, the Netherlands, Scotland, and the U.S., pharmacists' roles are expanding beyond dispensing (Mossialos, et al. 2015). In Australia, community pharmacists are providing emergency refills, prescribing for minor ailments, and ordering and interpreting lab results (Mossialos, et al. 2015). Depending on the province or territory in Canada, pharmacists can provide emergency refills, renew and extend prescriptions, change drug dosages and formulations, prescribe for minor ailments, initiate prescription drug therapy, order and interpret lab results, and administer drugs by injection (Canadian Pharmacists Association 2016). In England and Scotland, community pharmacists are providing emergency refills, renewing and extending prescriptions, changing dosages and formulations, making therapeutic substitutions, prescribing for minor ailments, and ordering and interpreting lab results (Mossialos, et al. 2015). In the Netherlands, community pharmacists are providing emergency refills, renewing certain prescriptions, extending many prescriptions, changing dosages, and ordering and interpreting lab results (Mossialos, et al. 2015). Throughout the U.S., community pharmacists are providing emergency refills, changing dosages and formulations, making therapeutic substitutions, and prescribing for minor ailments (Mossialos, et al. 2015). Additionally, in the majority of the U.S., community pharmacists are renewing and extending prescriptions, initiating prescription drug therapy, and ordering and interpreting lab

results (Mossialos, et al. 2015). Canada is one of the most progressive countries with respect to the implementation of expanded pharmacy services.

2.2 Community Pharmacy in Canada

In Canada, there are 10,035 pharmacies, of which 9,750 are community pharmacies and 285 are in-patient hospital pharmacies (National Association of Pharmacy Regulatory Authorities 2016). Community pharmacies operate in a highly commercial environment (Perepelkin and Dobson 2010). In the past, the majority of community pharmacies were owned independently (Perepelkin and Dobson 2010; Dobson and Perepelkin 2011). However, Canadian legislative changes that allowed non-pharmacists to own pharmacies lead to corporate ownership of community pharmacies (Perepelkin and Dobson 2010; Dobson and Perepelkin 2011). Pharmacies owned by large corporations have a significant market share and are continuing to grow over time (Pharmacy Practice 2015). Unlike many other healthcare professionals, community pharmacists have always had business and professional responsibilities, but with the rise of corporate ownership, the duality of responsibilities is more salient than ever before.

Community pharmacists practice in a highly commercial environment as healthcare providers of patient care services (Chappell and Barnes 1984; Perepelkin and Dobson 2010). The importance of business knowledge in pharmacy dates back to the 1950s when management courses were first introduced to pharmacy schools' curriculums (Tootelian, Wertheimer, and Mikhailitchenko 2012). These management courses have evolved in terms of sophistication and depth over the last 60 years (Perepelkin 2012). However, it is imperative that these courses continue to develop in both depth and relevance (Perepelkin 2012) as curriculums ultimately determine pharmacists' entry-level skill sets (Canadian Pharmacists Association 2016). According to Pharmacy Practice (2015), 40% of Canadian pharmacies have documented

business plans. Additionally, more Canadian pharmacy managers and owners are utilizing business professionals, as 77% have a corporate accountant, 57% have a corporate lawyer, and 32% have a business advisor.

Although it is generally agreed that sound business philosophy is essential to community pharmacy, the duality of business and professional responsibilities have been cited as a potential challenge for community pharmacists (Perepelkin and Dobson 2009; Perepelkin and Dobson 2010). As such, some scholars suggest community pharmacy managers may experience role strain occurring from the competing business and professional objectives (Hornosty and Coulas 1988; Harding and Taylor 1997; Sleath and Campbell 2001; Guirguis and Chewning 2005).

Some Canadian research suggests community pharmacy managers are successful at balancing their dual business and professional roles (Perepelkin and Dobson 2009; Perepelkin and Dobson 2010). Perepelkin and Dobson (2010) explored pharmacy managers' business and professional orientations, concluding that both orientations were legitimate in community pharmacy. Business orientations were found to be higher among independent and franchise pharmacy managers as compared to corporate pharmacy managers (Perepelkin and Dobson 2010). The authors concluded that the difference in business orientations may be related to the connectedness independent pharmacy managers may have with pharmacy profitability. These findings suggest business and market-focused orientations are appropriate due to the unique organizational setting.

Perepelkin and Dobson (2010) also found that community pharmacy managers had strong professional orientations, committed to their professional practice regardless of ownership type (independent, franchise, or corporate). Perepelkin and Dobson (2010) concluded that pharmacy managers demonstrated a high level of professionalism and their practice objectives were not

compromised by the for-profit nature of the community pharmacy environment. Today, Canadian pharmacists' professional roles are expanding, broadening and further emphasizing their professional scope.

2.3 Pharmacists in Canada

Canada has 40,704 licensed pharmacists, of which 25,200 practice in communities, 5,947 in hospitals, and 4,626 in other settings (National Association of Pharmacy Regulatory Authorities 2016). According to Pharmacy Practice (2015), 83% of community pharmacists reported that they were satisfied in their role as a pharmacist (Pharmacy Practice 2015). Canadians' impressions of community pharmacists are generally positive as well (Neighbourhood Pharmacy Association of Canada 2014).

According to the Neighbourhood Pharmacy Association of Canada (2014), 76% of Canadians have a positive impression of pharmacists. Specifically, the Neighbourhood Pharmacy Association of Canada (2014) reported that Canadians thought that pharmacists were friendly, provided accessible and affordable advice, and provided new valuable services. Other studies conducted in Saskatchewan and Newfoundland and Labrador supported the indication that Canadians have a favourable view of pharmacists and the profession (Perepelkin 2011; Kelly, et al. 2014). In Saskatchewan, pharmacists were viewed as trusted healthcare professionals, similar to physicians and nurses (Perepelkin 2011). Kelly, et al. (2014) found similar support in Newfoundland and Labrador, suggesting pharmacists can be trusted and should collaborate with other trusted healthcare professionals such as physicians.

Despite the positive perceptions of pharmacists, evidence of role ambiguity exists among Canadians. Specifically, Perepelkin (2011) found that many respondents indicated that they were unclear as to a pharmacists' role beyond dispensing (Perepelkin 2011). Kelly, et al. (2014)

also found that respondents were unclear as to the exact role of pharmacists. However, respondents' knowledge of pharmacists' roles differed based on the number of their interactions with such healthcare professionals (Kelly, et al. 2014). Specifically, respondents with a better understanding of pharmacists' roles were those that visited them more frequently (Kelly, et al. 2014). When asked about their opinions of pharmacists' expanded services, Saskatchewan respondents responded favourably to pharmacists prescribing refills or prescribing in emergency situations (Perepelkin 2011). However, support for pharmacists' prescribing beyond emergency situations or for prescription renewals was limited (Perepelkin 2011). Kelly, et al. (2014) found similar results, as respondents showed support for pharmacists prescribing for minor ailments and for prescription renewals. It is evident that pharmacists are trusted healthcare professionals. However, Canadians are unclear as to pharmacists' exact roles. This is not surprising as pharmacists' roles are expanding and differ provincially and territorially. Furthermore, many Canadians are supportive of the increased expanded scope of practice but have differing opinions as to what it should encapsulate.

2.4 Expanded Scope of Pharmacy Services

Depending on the province or territory, pharmacists have the ability to prescribe, adapt and manage prescriptions, administer drugs by injection, and order and interpret lab results (Canadian Pharmacists Association 2016). Comprehensive prescriptive authority includes the ability to prescribe for minor ailments, smoking cessation, and in emergency situations (Canadian Pharmacists Association 2016). Comprehensive adaptations and management of prescriptions includes making therapeutic substitutions, changing dosages, formulations, or regimens, and renewing and extending prescriptions (Canadian Pharmacists Association 2016). Comprehensive injection authority includes injecting any drug or vaccine (Appendix 1). Each

province or territory has differed with regard to legislation, implementation, and payment for expanded pharmacy services (Canadian Pharmacists Association 2016). Remuneration, or payment, for expanded pharmacy services comes from an individual, an insurance provider, or a public payer (Canadian Pharmacists Association 2016).

2.4.1 British Columbia

In British Columbia, pharmacists can adapt and manage some prescriptions, and administer vaccines (Canadian Pharmacists Association 2016). British Columbia provides public payer funding for standard medication reviews and assessments, renewing and extending prescriptions, and administering immunizations (Canadian Pharmacists Association 2016). British Columbia has legislated, implemented, and provided public payment for a few expanded pharmacy services.

2.4.2 Alberta

As compared to other provinces and territories, Alberta has legislated and implemented, the most comprehensive expanded pharmacy services (Canadian Pharmacists Association 2016). Public payment for the expanded pharmacy services in Alberta has also been the most comprehensive (Canadian Pharmacists Association 2016). In Alberta, pharmacists are reimbursed through public funding for standard, specific, and advanced medication reviews and assessments, prescribing, adapting and managing prescriptions, and administering some immunizations (Canadian Pharmacists Association 2016).

2.4.3 Saskatchewan

Similar to Alberta, legislation in Saskatchewan has allowed pharmacists to participate in many expanded pharmacy services. Pharmacists in Saskatchewan have been given some prescriptive authority, the ability to adapt and manage prescriptions, as well as administer drugs

by injection (Canadian Pharmacists Association 2016). Saskatchewan provides public funding for standard medication reviews, prescribing, adapting and managing prescriptions, and administering some immunizations (Canadian Pharmacists Association 2016).

2.4.4 Manitoba

Manitoba has legislated and implemented a number of expanded pharmacy services. Pharmacists in Manitoba have the ability to prescribe for some ailments, adapt and manage prescriptions, administer drugs by injection, and order and interpret lab results (Canadian Pharmacists Association 2016). However, public funding for Manitoba's expanded pharmacy services is limited to administering some immunizations (Canadian Pharmacists Association 2016).

2.4.5 Ontario

In Ontario, pharmacists have limited prescriptive as well as adaptation and managerial authority (Canadian Pharmacists Association 2016). Furthermore, pharmacists are only permitted to administer vaccines (Canadian Pharmacists Association 2016). However, Ontario pharmacists are reimbursed through public funding for standard, specific, and advanced medication reviews and assessments and most other permitted expanded pharmacy services (Canadian Pharmacists Association 2016).

2.4.6 Quebec

Similar to Ontario, Quebec has legislated and implemented limited prescriptive and adaptation and managerial authority (Canadian Pharmacists Association 2016). Unlike Ontario, Quebec has not permitted pharmacists to administer any drugs by injection but allowed pharmacists to order and interpret lab results (Canadian Pharmacists Association 2016). Public funding for expanded pharmacy services in Quebec is limited to their few expanded pharmacy

services, excluding ordering and interpreting lab results (Canadian Pharmacists Association 2016).

2.4.7 Maritime Provinces

New Brunswick, Nova Scotia, and Prince Edward Island have legislated and implemented some prescriptive and adaptive and managerial authority (Canadian Pharmacists Association 2016). All of the Maritime Provinces with the exception of Nova Scotia have permitted pharmacists to administer any drug by injection, with Nova Scotia allowing vaccine administration only (Canadian Pharmacists Association 2016). All Maritime Provinces have public funding for standard medication reviews and administering drugs by injection (Canadian Pharmacists Association 2016). Nova Scotia and Prince Edward Island provide public payment for prescription adaptation and management expanded services (Canadian Pharmacists Association 2016).

2.4.8 Newfoundland and Labrador

In Newfoundland and Labrador, pharmacists have limited prescriptive authority but some flexibility with drug adaptations and management and can administer any drug by injection (Canadian Pharmacists Association 2016). Public funding for expanded pharmacy services includes standard and specific medication reviews, the adaptations and management of prescriptions, and administering some immunizations (Canadian Pharmacists Association 2016).

2.4.9 Territories

With the exception of renewing and extending prescriptions in the North West Territories, the Canadian Territories have not legislated or implemented any of the expanded pharmacy services (Canadian Pharmacists Association 2016).

2.4.10 Pharmacists and the Expanded Scope of Practice

Despite the varying degrees of legislation and implementation, the expanding scope of pharmacy practice suggests Provincial and Territory Governments support the Canadian Pharmacists Association's vision (Law, et al. 2012; Morrison 2013). According to Pharmacy Practice (2015), 81% of Canadian pharmacists have intentionally expanded their role, offering expanded pharmacy services to patients (Pharmacy Practice 2015). Moreover, 45% of Canadian pharmacists plan to further expand their role as legislation changes permit. For example, 35% of Canadian pharmacists would like to offer expanded services related to asthma management (Pharmacy Practice 2015). According to Pharmacy Practice (2015), Canadian pharmacists spend only 6% of their days offering expanded or enhanced pharmacy services, whereas their ideal time spent on these services would be over 20% (Pharmacy Practice 2015). Generally, Canadian pharmacists have embraced the expanding scope of practice, but not without challenges.

2.5 Expanded Scope of Practice Challenges

The expanded scope of practice has posed new and complex challenges for Canadian pharmacists, managers, and owners. Today, pharmacists are shifting focus from expanding their roles to managing their new roles (Morrison 2015).

One cited challenge is determining the appropriate amount charged and reimbursement for expanded pharmacy services (Morrison 2015). As shown in previous sections, public payment for expanded services exists, yet it differs provincially and territorially (Canadian Pharmacists Association 2016). Although some evidence exists suggesting public payers are recognizing the importance of expanded services, it is important that support continues (Tsuyuki 2015). Additionally, due to the provincial and territorial differences, Canadians are confused

about what expanded services are offered and who is responsible for payment (Chappell and Barnes 1984).

Another challenge relates to pharmacists' time management. According to Pharmacy Practice (2015), the number one reason pharmacists were not engaging in expanded pharmacy services was lack of time (Pharmacy Practice 2015). If time spent on expanded services is expected to increase, pharmacists will have less time for dispensing, potentially requiring more pharmacy technicians and the expansion of pharmacy technician roles. As such, pharmacy technicians may be required to complete tasks formerly conducted by pharmacists. The completion of new tasks will require pharmacy technicians to be appropriately qualified. Previously, pharmacy technicians were not regulated in Canada (National Association of Pharmacy Regulatory Authorities 2016). The lack of regulation created differences in pharmacy technician competencies. Recently, pharmacy regulators have been developing a regulated framework for the pharmacy technician profession with the intent of standardizing competencies nationally (National Association of Pharmacy Regulatory Authorities 2016).

Similar to pharmacy technicians, as pharmacists' roles expand, new knowledge and skills may also be required (Pearson 2010). According to Jorgenson, et al. (2016), younger pharmacists have been found to support new formal educational programs that support the expansion of services. However, not all pharmacists may be prepared to accept and engage in expanding roles (Rosenthal, et al. 2016; Schindel, et al. 2016). Specifically, Schindel, et al. (2016) found that some pharmacists were reluctant to give up their distribution responsibilities and were more comfortable with their traditional duties. Moreover, Rosenthal, et al. (2016) found that pharmacists' lack of uptake in expanded services was associated with personality

traits, such as introversion. Lack of participation in expanded services may pose future problems, as patients are beginning to expect newly implemented services (Tsuyuki 2015).

Finally, potential conflicts of interest may emerge as new pharmacy services are offered. One potential conflict of interest is related to a pharmacist's ability to prescribe and then sell a medication (Canadian Pharmacists Association 2016). Therefore, the combined prescribing and selling of medications should be guided by pharmacists' professional ethics, not profit motives. Additionally, in jurisdictions with expanded scopes of practice but limited remuneration, corporate objectives focusing on profit generating services may be of a higher priority than non-revenue-generating expanded services. Although the expanded scope of practice has and will continue to pose challenges, there is a potential for improved health and financial outcomes.

2.6 The Potential of the Expanded Scope Practice

Recent research suggests many pharmacists evaluated their implementation of expanded services as successful (Rosenthal, et al. 2015). Other literature suggests there may be a link between the expanded scope of practice and improved health outcomes (Tannenbaum and Tsuyuki 2013). Specifically, pharmacists' participation in patient healthcare management has been found to have favourable health outcomes in the areas of hypertension, dyslipidemia, heart failure, blood clots, asthma, and influenza (Bungard, et al. 2008; Koshman, et al. 2008; Benavides, Rodriguez, and Maniscalco-Feichtl 2009; Santschi, et al. 2011; Charrois, et al. 2012; Tannenbaum and Tsuyuki 2013; Papastergiou, et al. 2016). According to Shoppers Drug Mart (2016), pharmacists' ability to prescribe for minor ailments allows patients to start treatment sooner and prevent unnecessary physician visits. Commencing timely treatment for minor ailments has the potential to improve healthcare outcomes in Canada and unnecessary physician visits have the potential to reduce overall healthcare costs.

2.7 Market-Driven Versus Market-Driving Organizations

Perhaps those pharmacies best equipped to capitalize on the expanded scope of pharmacy practice are those that are market-oriented. According to Slater and Narver (1998), market-oriented organizations understand both the expressed and latent needs of their customers. As such, any new customer knowledge will shape the offerings of a market-oriented organization (Slater and Narver 1998). Market-oriented organizations should not be confused with customer-led or market-driven organizations. According to Slater and Narver (1998), customer-led organizations react only to the expressed desires of their customers. Confusing customer-led with market-oriented strategy has led to inferences that listening to customers may result in loss of competitiveness (Christensen and Bower 1996). In contrast, market-oriented organizations understand and respond to both the expressed and latent needs of their customers (Slater and Narver 1998). At times, market-oriented companies create continuous innovations, geared toward expressed customer demand, however market-oriented organizations also create discontinuous innovations that are guided by the understanding of latent needs (Kumar, Scheer, and Kotler 2000).

As with Slater and Narver (1998), Jaworski, Kohli, and Sahay (2000), describe market-oriented organizations as those that both drive markets and to some extent are driven by markets. Market-driving organizations change the structure of the market or the behaviours of the players in the market (Jaworski, Kohli, and Sahay 2000). Market-driving organizations create a vision to fulfill the latent needs of its customers or deliver expressed needs at unprecedented levels (Jaworski, Kohli, and Sahay 2000). Contrarily, organizations that are only market-driven do not seek to understand the latent needs of their customers in an attempt to reshape the market or deliver discontinuous innovations (Jaworski, Kohli, and Sahay 2000).

It is important to note that markets can be driven by individual organizations or collectively by several organizations (Jaworski, Kohli, and Sahay 2000). Individually or collectively, organizations can construct, deconstruct, or modify the market structure (Jaworski, Kohli, and Sahay 2000). Construction involves the addition of players in the market, deconstruction involves the elimination of players in the market, and modification involves the rearrangement of players in the market (Jaworski, Kohli, and Sahay 2000). In the case of Canadian pharmacy practice, pharmacies have acted collectively through their provincial professional organizations to rearrange the players in the market. Specifically, the expanded scope of pharmacy practice has allowed pharmacists to take on new professional responsibilities, including minor ailment prescribing and the delivery of vaccines. Formerly, medical doctors and nurses, as opposed to pharmacists, delivered these healthcare services. Individually, market-oriented organizations are committed to understanding the latent needs of their customers, assessing the market and competitors, and share information in order to in order to create sustainable competitive advantages (Slater and Narver 1998). As individual pharmacy participation in the expanded scope of practice is not mandatory, market-oriented and entrepreneurial-oriented pharmacies may pursue the delivery of such services in an attempt to better serve the latent needs of their customers and differentiate from their competitors.

2.8 Market Orientation and Performance

The MO and performance relationship has been studied across various industries (biotechnology, construction/surveyor, exporters, forestry, hotel, internet advertisers, manufacturing, mass-merchandisers, multi-industry, services, etc.), in many countries, with differing MO instruments, and using contrasting performance measurements (Narver and Slater 1990; Diamantopoulos and Hart 1993; Jaworski and Kohli 1993; Deng and Dart 1994; Slater and

Narver 1994; Greenley 1995; Appiah-Adu 1998; Appiah-Adu and Ranchhod 1998; Bhuian 1998; Sargeant and Mohamad 1999; Dawes 2000; Matsuno and Mentzer 2000; Pulendran, Speed, and Widing 2000; Harris 2001; Subramanian and Gopalakrishna 2001; Noble, Cadogan, Diamantopoulos, and Siguaw 2002; Perry and Shao 2002; Rose and Shoham 2002; Sinha, and Kumar 2002; Tay and Morgan 2002; Cadogan, Cui, and Li 2003; Kara, Spillan, and DeShields 2005). Despite the diverse settings, MO has been repeatedly shown to have a positive and direct or moderating role in its relationship with performance (Narver and Slater 1990; Jaworski and Kohli 1993; Deng and Dart 1994; Slater and Narver 1994; Greenle y 1995; Appiah-Adu 1998; Appiah-Adu and Ranchhod 1998; Bhuian 1998; Dawes 2000; Matsuno and Mentzer 2000; Pulendran, Speed, and Widing 2000; Harris 2001; Subramanian and Gopalakrishna 2001; Cadogan, Diamantopoulos, and Siguaw 2002; Noble, Perry and Shao 2002; Rose and Shoham 2002; Sinha, and Kumar 2002; Tay and Morgan 2002; Cadogan, Cui, and Li 2003; Kara, Spillan, and DeShields 2005).

Few studies showed that MO had no effect, or a very weak effect, on performance (Diamantopoulos and Hart 1993; Sargeant and Mohamad 1999). The majority of studies that explored the MO and performance relationship were in multi-industries or conducted in the manufacturing industry (Heslop and Qu 2007; De Luca, Verona, and Vicari 2010), while few studies have explored the MO and performance relationship in healthcare settings, much less pharmacy (Raju, Lonial, and Gupta 1995; Raju, et al. 2000; Wood, Bhuian, and Kiecker 2000; Lonial, et al. 2008; Renko, Carsrud, and Brannback 2009; Wilson et al. 2014).

Wood, Bhuian, and Kiecker (2000) explored the MO and performance relationship in the U.S. non-profit hospital industry. CEOs of 237 hospitals completed a self-administered questionnaire. MO was measured using a modified Kohli and Jaworski (1990) instrument and

performance was measured with a subjective instrument based on quality of care, revenue, overall financial position, and patient satisfaction (Kohli and Jaworski 1990). MO was found to be a positive and statistically significant predictor of performance. The study provided strong support for the relationship between MO and performance in the healthcare, specifically among hospitals.

Raju, Lonial, and Gupta (1995) also explored the MO and performance relationship in the U.S. non-profit hospital industry. MO was measured using a modified Kohli, Jaworski, and Kumar (1993) instrument that included four dimensions, intelligence generation, customer satisfaction, responsiveness to customers, and responsiveness to competitors. Hospital performance was measured using a three-dimensional instrument that included financial performance, market and product development, and internal quality. Raju, Lonial, and Gupta (1995) hypothesized that the four MO dimensions would be critical to hospital performance. In order to test the MO and performance relationship, a series of regression analyses were performed using the MO dimensions as the independent variables and each performance dimension as the dependent variable. Raju, Lonial, and Gupta (1995) found that MO had a positive and statistically significant effect on financial performance, market and product development, and internal quality. Using the same data, Raju, et al. (2000) retested the hypothesis via structural equation modelling. The path analysis model showed that much of the variance in hospital performance was explained by MO, supporting the original hypothesis. Furthermore, the relationship between MO and performance was stronger among smaller hospitals as compared to larger hospitals, suggesting that hospital size moderated the MO and performance relationship. Raju, et al. (2000) concluded that MO is critical to financial

performance, market and product development, as well as internal quality of small and large hospitals, but perhaps more important for the survival and success of smaller hospitals.

Lonial, et al. (2008) explored the MO and performance relationship in the Turkish private hospital industry. MO was measured using a modified Jaworski and Kohli (1993) instrument. Performance was measured based on new service development and financial performance. The new service development instrument was comprised of investment in research and development, reputation, competitiveness, product development, and new market development. Financial performance was measured using a subjective instrument that included items related to revenue growth, net profits, return on investment, profit to revenue, and cash flow. Lonial, et al. (2008) found that MO had a positive and direct effect on new service performance but no effect on financial performance (Lonial, et al. 2008). Instead, MO's influence on financial performance was mediated by new service development. The mediation relationship suggests that MO influences new service development which in turn influences financial performance. Lonial, et al. (2008) concluded that a commitment to marketing is necessary for improving overall hospital performance.

Renko, Carsrud, and Brannback (2009) explored the relationship between MO and performance among human health biotechnology companies in the U.S., Finland, and Sweden. MO was measured using an adapted version of the Jaworski and Kohli (1990) instrument. Financial performance was measured by the amount of capital invested per year. Renko, Carsrud, and Brannback (2009) hypothesized that MO would be positively related to the amount of capital invested. Results from 85 biotechnology executives showed that high MO lead to large amounts of capital invested. When the relationship was examined among countries separately the MO and capital invested relationship was only significant among Finnish and

Swedish companies. Renko, Carsrud, and Brannback (2009) suggested the importance of MO in determining performance may differ cross-culturally, as Scandinavian countries differed from the U.S. Moreover, it may prove to be fruitful to explore the relationship in other countries.

Following Renko, Carsrud, and Brannback's (2009) recommendation to explore the MO and performance relationship in other countries, Wilson, et al. (2014) studied MO and alliance orientation's effect on performance among Canadian human health biotechnology companies. MO was measured using the Narver and Slater (1990) instrument and performance was measured with a subjective instrument that included both financial and research and development items. MO was found to have a positive and statistically significant effect on performance in the main effect model, but when examined with alliance orientation MO's effect on performance was shown to be fully-mediated by alliance orientation. Their findings highlighted the importance of MO in the Canadian human health biotechnology industry, furthering support for MO's importance in healthcare.

2.9 Customer Satisfaction, Customer Loyalty, and Performance

Heskett, et al.'s (1994) service-profit chain theory is not unlike MO and performance literature, as it suggests profit is driven by an organization's customer-oriented behaviour. Specifically, in the service-profit chain theory, customer satisfaction leads to customer loyalty and customer loyalty leads to financial returns (Heskett, et al. 1994). A number of empirical investigations have explored these relationships in isolation and in sequence, providing broad support for the purported theory (Nelson, et al. 1992; Hallowell 1996; Loveman 1998; Gruca and Rego 2005; Chi and Gursoy 2009). One of the first empirical investigations of the service-profit chain was conducted in the banking industry (Hallowell 1996). Using multiple measures of customer satisfaction, customer loyalty, and performance, Hallowell (1996) found that customer

satisfaction and customer loyalty, as well as customer loyalty and financial performance, were highly correlated. In a similar study conducted in the banking industry, Loveman (1998) found customer satisfaction was related to customer retention (loyalty) and retention (loyalty) was related to revenue per household (financial performance). Although these findings were not conducted in healthcare, banking is highly personal similar to health services, suggesting the existence of the service-profit chain in highly personal services. The most pharmacy-relevant exploration of customer satisfaction and profit was conducted with U.S. private hospitals (Nelson, et al. 1992). Nelson, et al. (1992) found that patient-perceived quality was related to hospital financial performance. Assessed via earnings, revenue, and return-on-assets, financial performance was found to be positively associated with patient perceptions of medical services and discharge protocols. These financial performance antecedents (quality of medical services and discharge protocols) are similar to current pharmacy services (chronic disease management and medication reviews), suggesting the applicability of the service-profit chain in pharmacy. As described by Loveman (1998), profit is derived from customer loyalty and satisfaction, and satisfaction comes from perceived service value. As such, if patients perceive pharmacy services as having valuable health consequences, financial reward will ultimately follow. In addition to market and customer strategic orientations, entrepreneurial orientation has been linked to performance.

2.10 Entrepreneurial Orientation and Performance

Another strategic orientation that has been explored in pharmacy is EO. Doucette and Jambulingam (1999) were the first to explore the EO instrument in community pharmacy. The authors added a work ethic dimension to Lumpkin and Dess' (1996) five dimensional EO construct. Doucette and Jambulingam (1999) justified its inclusion by describing how it is

central to both entrepreneurship and pharmacy practice. In their study of 234 U.S. community pharmacies, the authors evaluated their expanded multi-dimensional EO instrument and explored a number of its potential antecedents and consequences (Doucette and Jambulingam 1999). Model fit indices supported their multi-dimensional model. Using the factor loadings, Doucette and Jambulingam (1999) created a composite weighted EO score to explore its antecedents and consequences. The authors hypothesized that environmental dynamism, environmental munificence, competitive intensity, pharmacy type, adequacy of resources, and organic organizational structure would be antecedents to EO (Doucette and Jambulingam 1999). The relationship between environmental munificence and EO was positive and statistically significant, suggesting that a growing market encouraged entrepreneurial undertakings. Small pharmacies were found to have higher EO scores than large pharmacies, concluding that they were more nimble allowing for greater entrepreneurial-oriented decision-making. The relationship between the adequacy of resources and EO was positive and statistically significant. The authors concluded that pharmacies with sufficient resources can capitalize on entrepreneurial opportunities better than pharmacies with insufficient resources. Additionally, pharmacies with organic organizational structures were found to have higher EO scores than rigid hierarchical organizational structures. Environmental dynamism and competitive intensity were not found to be significantly related to EO. Although not discussed by Doucette and Jambulingam (1999), their lack of significance as antecedents may be due to the fact that external factors are typically theorized as moderating variables. In their final hypothesis, Doucette and Jambulingam (1999) proposed that pharmacies with high EO would be more likely to provide new pharmacy services than pharmacies with low EO. All pharmacies that had EO scores below the median EO score were classified as low EO, while those above the median EO

score were classified as high EO. It was found that pharmacies in the high EO category were more likely to engage in five of the seven innovative pharmacy services as compared to pharmacies in the low EO category. Specifically, pharmacies with high EO were more likely to engage in specialized compounding, patient compliance programs, diabetes care management, asthma care management, and patient health risk evaluations. While they were more pharmacies in the high EO category, versus the low EO category, performing in-pharmacy immunizations and conducting phone calls to monitor pharmacotherapy, the difference was not significant. Doucette and Jambulingam (1999) concluded that a pharmacy's EO is an indicator of its engagement in innovative pharmacy services. It is noteworthy that work ethic had the lowest factor loading of all dimensions and the chi-square to degrees of freedom for the EO confirmatory factor analysis (CFA) model did not meet Schreiber's (2008) requirement. Nonetheless, this study successfully utilized the EO instrument in community pharmacy and demonstrated a strong link between EO and new pharmacy service creation.

Similar to Doucette and Jambulingam (1999), Iyer and Doucette (2003) explored the relationship between EO and environmental factors. However, Iyer and Doucette (2003) used the environmental factors as mediating variables in the EO and performance relationship. The authors hypothesized that the EO and performance relationship would be stronger in hostile and munificent environments, thus environmental hostility and munificence moderate the EO and performance relationship (Iyer and Doucette 2003). Iyer and Doucette (2003) used Doucette and Jambulingam's (1999) EO instrument and calculated pharmacies' EO weighted mean score using the previous study's second-order factor loadings. The pharmacy performance measurement included profitability, sales growth, liquidity, public image, and market share items. The authors' baseline regression model included EO and various controls (managerial characteristics,

adequacy of resources, organic organizational structure, pharmacy size, and pharmacy age) as independent variables and performance as the dependent variable. The results of the baseline regression model showed EO, adequacy of resources, and pharmacy size as having a positive and statistically significant effect on pharmacy performance. In their second regression model that added environmental hostility and munificence as independent variables, the relationship between EO and pharmacy performance became non-significant (Iyer and Doucette 2003). In their final regression model that added the interaction effects of EO and environmental hostility as well as EO and environmental munificence, environmental hostility and munificence were shown to moderate the EO performance relationship, supporting the authors' hypotheses. Interestingly, EO's effect on pharmacy performance was found to be negative and statistically significant in the third regression model (Iyer and Doucette 2003). The authors emphasized that while EO was shown to be an antecedent to pharmacy performance in the baseline regression model, its results differed with the inclusion of environmental factors. Iyer and Doucette (2003) concluded that EO's effect on performance is contingent on the environmental conditions, such that EO's effect on performance is positive and stronger in competitive and growing market conditions. This study further contributed to the growing knowledge of EO in pharmacy and improved upon the works of Doucette and Jambulingam (1999). Iyer and Doucette (2003) explored a new outcome of EO in certain environmental conditions. Doucette and Jambulingam's (1999) EO instrument showed strong reliability, with a noticeable improvement in work ethic's loading. Additionally, Iyer and Doucette's (2003) model had theoretical improvements over the previous study, as it used environmental factors as moderating variables.

In a more recent study, Doucette, et al. (2012) explored the influence of various organizational factors on pharmacy practice change. Specifically, several components of EO, as

well as resource adequacy and pharmacy size, were used as independent variables. The dependent variable, practice change, was measured by 12 items that reflected possible areas of practice change. Based on the 12-item score, an aggregate change index was created. The authors received 347 usable responses from U.S. pharmacists across various practice settings (Doucette, et al. 2012). It was found that over 60% of pharmacists reported some change in their practice. Not surprisingly given the expanded scope of practice, the areas of the largest change were related to pharmacists' skills and knowledge as well as pharmacist technicians' responsibilities. In order to explore the organizational factors influencing pharmacy practice change, Doucette, et al. (2012) performed multiple linear regression using proactiveness, risk-taking, autonomy, work ethic, adequacy of resources, number of pharmacists on duty, and number of pharmacy technicians on duty as independent variables with the aggregate change index as the dependent variable. Interestingly, innovativeness and competitive aggressiveness, two key components of EO, were excluded with no provided rationale. The results of their regression model suggested proactiveness, autonomy, and adequacy of resources were positively and statistically significant predictors of pharmacy practice change (Doucette, et al. 2012). The relationship between less than two pharmacist technicians and pharmacy practice change was negative and statistically significant while risk-taking, work ethic, and the number of pharmacists on duty were not found to be significant (Doucette, et al. 2012). Not surprisingly, being proactive, encouraging employee autonomy, and resource slack that allows new undertakings, enables pharmacy practice change. These findings reaffirmed the link between EO components and resource adequacy. Although the number of pharmacists on staff did not influence practice change, the number of pharmacist technicians was significantly related to practice change. Specifically, if a practice had fewer pharmacist technicians, it was less likely to engage in

practice changes. This is somewhat intuitive and congruent with Doucette and Jambulingam's (1999) findings, that pharmacy size matters. As such, a certain number of technicians may be required in order for pharmacists to engage in such practice changes. Little was discussed as to why risk-taking and Doucette and Jambulingam's (1999) work ethic were not significant predictors of pharmacy practice change. This study is similar to Doucette and Jambulingam (1999) as it adds depth to the understanding of EO's complex interactions at a component-level with various dependent variables. Overall, Doucette, et al.'s (2012) work adds to the small but growing body of EO research in pharmacy.

Similar to Doucette and Jambulingam's (1999) exploration of EO and performance, Jambulingam, Kathuria, and Doucette (2005) proposed that pharmacies' unique combination of entrepreneurial characteristics would have performance implications. In their study of 251 U.S. pharmacies, the authors found six typologies that differed based on the pharmacies' entrepreneurial characteristics (Jambulingam, Kathuria, and Doucette 2005). Entrepreneurial characteristics were measured using the Doucette and Jambulingam (1999) instrument. The first typology was named "competitive aggressors" as these pharmacies had significantly higher competitive aggressiveness scores than other typologies. "Ambitious" was the second typology. It included pharmacies that a significantly higher motivation, or alternatively described as work ethic, score. The third group was named "true entrepreneurs" as it was characterized as having a high emphasis on all EO components. "Low-risk entrepreneurs" was the fourth typology that included pharmacies with high EO component scores apart from risk-taking. The fifth typology was "proactive innovators" and included pharmacies that scored highly on proactiveness and innovativeness, but not on risk-taking. The final typology included pharmacies that were the least entrepreneurial and therefore named "anything but entrepreneurs". In terms of the

typologies' influence on performance, Jambulingam, Kathuria, and Doucette (2005) found that "true entrepreneurs" and "low-risk entrepreneurs", essentially those that had high EO component scores, had significantly different customer orientation and performance scores. Specifically, these two groups were more customer-oriented, perceived their growth to be faster than competitors, and implemented more innovative services as compared to the other typologies (Jambulingam, Kathuria, and Doucette 2005).

The above review of the literature suggests that entrepreneurial orientation has implications for practice changes, engagement in innovative services, and performance. Additionally, EO has been used to effectively categorize pharmacies' intangible resources. However, EO research in pharmacy is quite limited and primarily from U.S. pharmacies.

2.11 Market Orientation, Entrepreneurial Orientation, and Performance

MO has been shown to contribute to organizational performance in a number of contexts. In addition to its influence on various performance outcomes, MO has been linked to other strategic orientations. Grinstein's (2008) meta-analysis found MO to have a positive and statistically significant relationship with innovation orientation, learning orientation, EO, and employee orientation (Grinstein 2008). The strongest relationship was between MO and learning orientation, followed by EO, employee orientation, and innovation orientation (Grinstein 2008). However, the meta-analysis only explored MO's relationship with the aforementioned strategic orientations. Yet, the author suggested that the combination of MO and other strategic orientations would lead to higher organizational performance (Grinstein 2008). Although Grinstein's (2008) conclusion is possible and likely true in some cases, it cannot be concluded without exploring the orientations' combined influence on performance metrics. Fortunately, a number of studies have explored how various strategic orientations, MO and EO included, work

together to positively influence a number of organizational performance metrics (Barrett and Weinstein 1998; Slater and Narver 2000; Atuahene-Gima and Ko 2001; Hult, Hurley, and Knight 2004; Bhuian, Menguc, and Bell 2005; Baker and Sinkula 2009; Boso, Story, and Cadogan 2013; Laukkanen, et al. 2013; Veidal and Korneliussen 2013; Buli 2017; Nasir, Mamun, and Breen 2017; Micheels and Boecker 2017; Song and Jing 2017).

Barret and Weinstein (1998) were among the first to explore the MO and EO relationship with performance. The authors explored the individual and combined effect of MO, EO, and organizational flexibility on business performance among U.S. manufacturing businesses (Barrett and Weinstein 1998). Business performance was a subjective measure, evaluating overall company performance relative to its competitors. Barret and Weinstein (1998) found that MO and EO were individually correlated with firm performance, with the MO and performance relationship being the strongest. In addition to MO and EO, organizational flexibility (the adaptability of a business) was also individually linked to performance (Barrett and Weinstein 1998). Moreover, the authors' multiple regression model that included MO, EO, and flexibility supported an additive effect on business performance (Barrett and Weinstein 1998). Barret and Weinstein (1998) proposed several other hypotheses using the aforementioned independent variables as well as their product variables. The authors provided little theoretical support for such models and later reported them as not significant. Their study was one of the first to show empirical support for the importance of MO and EO in achieving high levels of organizational performance, thus supporting Greinstein's (2008) proposition that organizational orientations work together to drive performance.

A decade after their original publication, Slater and Narver (2000) retested the MO and business profitability relationship among U.S. multi-business corporations. Similar to Barrett

and Weinstein (1998), Slater and Narver (2000) included an exploration of EO's effect on business profitability. In addition to MO and EO, relative size, relative cost, competitor concentration, market growth, buyer power, and technology change were included as independent variables (Slater and Narver 2000). Business profitability was a subjective measure of return on investment relative to competitors. A multiple regression model was used to test the individual and combined effect of MO and EO on business profitability. Similar to Barrett and Weinstein (1998), in the model that excluded EO, MO was found to have a positive and statistically significant effect on business profitability (Slater and Narver 2000). However, unlike Barrett and Weinstein (1998), in the model that excluded MO, EO was found to have no effect on business profitability. Moreover, the model that included both MO and EO showed only MO as having a positive and statistically significant effect on business profitability (Slater and Narver 2000). Slater and Narver (2000) concluded that MO and business profitability are strongly related across industries and throughout time. They offered the explanation that EO's effect on business profitability takes time, as it may have a more immediate impact on performance items such as new product success (Slater and Narver 2000). Using one dependent variable, return on investment, to measure financial performance limited the strategic implications of MO and EO and prohibited the generalizability of their findings. However, as Barrett and Weinstein (1998) suggest, it may be that EO leads to increased overall performance, directly linked to some, but not all, individual metrics. The model's lack of complexity limited the exploration of the MO and EO relationship to the construct level.

The majority of studies that explore MO and EO's influence on performance have been conducted at a construct level. Building on the works of Barrett and Weinstein (1998) and Slater and Narver (2000), Buli (2017) explored the effects of MO and EO on business performance

among Ethiopian small and medium-sized enterprises. Although Buli (2017) explored MO's influence on business performance from a construct level, EO's components were modelled individually. Buli (2017) hypothesized that MO, risk-taking, innovativeness, proactiveness, competitive aggressiveness, and autonomy would be positively related to business performance and that innovativeness and competitive aggressiveness will be positively related to MO. Business performance included subjective measures of gross margin, profitability, cash flow, sales growth, and employee growth (Buli 2017). Using multiple regression, Buli (2017) found that MO, risk-taking, proactiveness, competitive aggressiveness, and autonomy were all statistically significant predictors of business performance. Buli (2017) found that innovativeness and competitive aggressiveness were positively related to MO, concluding that innovativeness' effect on business performance was indirect, through MO. The author concluded that, except for innovativeness, MO and EO's components positively and directly influenced business performance (Buli 2017). Buli's (2017) findings support Barrett and Weinstein's (1998), further highlighting the importance of MO and EO's role in achieving high overall performance.

Several academics have introduced additional strategic orientations as well as mediating and moderating variables in explorations of MO, EO, and performance (Atuahene-Gima and Ko 2001; Bhuian, Menguc, and Bell 2005; Baker and Sinkula 2009; Boso, Story, and Cadogan 2013; Laukkanen, et al. 2013; Veidal and Korneliussen 2013; Micheels and Boecker 2017; Nasir, Mamun, and Breen 2017; Song and Jing 2017).

Laukkanen, et al. (2013) explored the effects of a number of strategic orientations, including MO, EO, learning orientation, and brand orientation on brand performance and market performance. The authors hypothesized that the strategic orientations would all lead to brand

and market performance (Laukkanen, et al. 2013). Moreover, brand performance would be positive and significantly related to market performance and both brand and market performance would lead to business growth (Laukkanen, et al. 2013). The study involved an exploration of small and medium-sized enterprises in countries with distinct differences (Laukkanen, et al. 2013). Namely, Hungary was described as a developing economy, while Finland was developed. MO's influence on brand and market performance was found to have a positive and significant effect on brand performance, while its influence on market performance was not significant among Hungarian but positive and significant among Finnish firms (Laukkanen, et al. 2013). The authors concluded that market-oriented organizations generate strong brand performance (Laukkanen, et al. 2013). Laukkanen, et al. (2013) described the MO and market performance relationship outcome as "unexpected" as understanding the market is closely tied to being able to deliver what the market demands. The authors attributed this finding to the potential respondent misunderstanding that market-oriented organizational philosophy is equivalent to being market-led (Slater and Narver 1998). EO was found to have a positive and significant effect on market and brand performance among firms in both countries (Laukkanen, et al. 2013) and brand orientation was found to be related to brand performance in both countries. However brand orientation's effect on market performance was not important in Finland and detrimental in Hungary (Laukkanen, et al. 2013). Learning orientation's effect on market performance was not significant in either country but its effect on brand performance was positive in Hungary but negative in Finland (Laukkanen, et al. 2013). The authors concluded that learning may be more important among firms in developing countries. Finally, the direct effect of market performance on business growth was positive and significant but the direct effect of brand performance was not (Laukkanen, et al. 2013). However, it was indirectly linked to business growth via market

performance. It is clear that MO and EO are dominant strategic orientations that influence various performance measurements and may vary across countries. While the authors included a number of strategic orientations in their structural model, none of them were hypothesized to have direct effects on business growth. This is somewhat troubling, given the extant literature (Barrett and Weinstein 1998; Slater and Narver 2000; Buli 2017). Regardless, the authors were wise to include a number of strategic orientations, explore the relationships in two countries, and delineate the important difference between market-oriented and market-led firms.

Hult, Hurley, and Knight (2004) also explored the relationships among various strategic orientations and business performance among U.S. multi-industry companies. Specifically, the authors hypothesized a structural model that included MO, EO, and learning orientation as antecedents to organizational innovativeness and organizational innovativeness as an antecedent to business performance. Their business performance instrument measured satisfaction with profitability, sales, market share, and overall performance (Hult, Hurley, and Knight 2004). Their findings supported the hypothesized structural equation model (Hult, Hurley, and Knight 2004). Furthermore, the authors found that all relationships, except the MO and organizational innovativeness relationship, did not differ based on market turbulence. MO was only found to be significantly related to organizational innovativeness in highly turbulent markets. The authors concluded that organizational innovativeness was important to organizational performance regardless of the degree of change in the marketplace. Hult, Hurley, and Knight (2004) further concluded that organizational innovativeness partially mediated the relationships among MO, EO, and learning orientation with business performance. Yet in their regression model that included strategic orientations and organizational innovativeness as independent variables and business performance as the dependent variable, MO's direct effect on business performance was

greater than organizational innovativeness. Moreover, EO's direct effect on business performance was equal to that of organizational innovativeness. Therefore, the authors' conclusion that MO and EO were mediated by organizational innovativeness was somewhat questionable due to the orientations' large direct effects on business performance. Therefore, Hult, Hurley, and Knight's (2004) findings support the aforementioned findings that support the direct effects of MO and EO on overall performance (Barrett and Weinstein 1998; Slater and Narver 2000; Buli 2017).

As with Hult, Hurley, and Knight (2004), Veidal and Korneliussen (2013) explored the relationships of MO, EO, organizational innovation, and performance among farm enterprises selling to farmers' markets in Norway. It was hypothesized that MO and EO would have a direct and positive relationship with performance measured via organizational growth (Veidal and Korneliussen 2013). It was further hypothesized that MO and EO would have an indirect and positive effect on performance through organizational innovativeness (Veidal and Korneliussen 2013). Unlike the majority of MO studies that used the Narver and Slater (1990) or Kohli and Jaworski (1990) instrument, this study used a construct comprised of knowledge collection, collaboration, and response. EO was measured using the Covin and Slevin (1989) instrument and organizational innovation measured innovation changes in the business within the last five years. Using structural equation modelling at the construct level, Veidal and Korneliussen (2013) found that organizational innovativeness and MO were directly related to organizational growth. However, unlike Hult, Hurley, and Knight (2004) the relationship between MO and organizational innovativeness was not significant (Veidal and Korneliussen 2013). EO was found to be an antecedent to organizational innovativeness but not directly related to organizational growth (Veidal and Korneliussen 2013). Not only did the author's choice of MO

instrument present component loading issues, it may have played a role in MO's lack of significance with organizational innovativeness. MO's influence on organizational growth is consistent with previous findings, supporting the notion of a direct link between MO and performance (Barrett and Weinstein 1998; Slater and Narver 2000; Hult, Hurley, and Knight 2004; Buli 2017). Moreover, the indirect link between EO and performance via organizational innovativeness was consistent with Hult, Hurley, and Knight's (2004) findings.

Similar to Veidal and Korneliussen (2013), Micheels and Boecker (2017) tested a complex structural model involving MO, EO, marketing innovations, product innovations, satisfaction with current performance, and expected future performance among agriculture businesses selling to Canadian farmers' markets. In the authors' model, MO, EO, marketing innovations, and product innovations were hypothesized to have positive and statistically significant relationships with both current and future performance measurements (Micheels and Boecker 2017). Additionally, MO and EO were hypothesized to have positive and statistically significant relationships with marketing innovations and product innovations (Micheels and Boecker 2017). MO was found to have a positive and significant effect on both marketing innovations and expected future performance but not with product innovation or current performance (Micheels and Boecker 2017). EO was found to have a positive and significant effect on product innovations, marketing innovations, and current performance but not with future performance (Micheels and Boecker 2017). The authors suggest that it is logical that market-oriented business are more likely to deliver and market products in an innovative manner, similarly entrepreneurial-oriented businesses are more likely to create new products and market them innovatively (Micheels and Boecker 2017). Micheels and Boecker (2017) found that marketing innovation and current performance are positively and significantly related to future

performance, suggesting that marketing innovatively can lead to future success and current performance is a strong indicator of anticipated future success. It was concluded that MO and EO work together to directly influence innovations, marketing or product, and current and future performance. Although Veidal and Korneliussen (2013) and Micheels and Boecker's (2017) studies were limited to farmers' markets, innovation outcomes as mediating variables have been explored in other contexts.

Baker and Sinkula (2009) tested a structural equation model that included an innovation mediating variable. Specifically, MO and EO were modelled as antecedents to innovation success with innovation success and MO having direct effects on profitability (Baker and Sinkula 2009). The resulting model fit was acceptable, finding support for four of their five proposed relationships (Baker and Sinkula 2009). Interestingly the relationship between MO and innovation success was not significant. As such, Baker and Sinkula (2009) tested a rival model that excluded EO. MO's effect on innovation success was shown to be positive and statistically significant (Baker and Sinkula 2009). The authors concluded that MO is important to innovation success, but EO's relationship is stronger (Baker and Sinkula 2009). Two additional theory-guided rival models were tested. The first explored the relationship of MO and EO on profitability. Their results were similar to Slater and Narver's (2000) whereby EO's effect on profitability was not significant when included in the same model as MO. However, unlike Slater and Narver (2000), after testing for mediation following Baron and Kenny's (1986) recommendations, Baker and Sinkula (2009) concluded that EO's impact on profitability was mediated by innovation success, further supporting their hypothesized model. Baker and Sinkula (2009) tested a third model that included EO as an antecedent to MO. The resulting model fit was poor, leading to the rejection of the rival model (Baker and Sinkula 2009). The authors

demonstrated sound rigour, as they explored three plausible theory-guided rival models. Although their sample size was small and data was only from small San Diego-based multi-industry companies, their theoretical arguments, supported by empirical data, were logical and supported the notion that EO's effect of performance exists, but is not directly related to profitability. Similar to other MO research, the authors conclude MO has a direct effect on profitability (Slater and Narver 2000). The authors further concluded that market-oriented companies understand the marketplace and are entrepreneurially-focused, develop successful innovations that lead to firm profitability.

Innovative success was also used as a mediating variable in Nasir, Mamun, and Breen's (2017) study of Malaysian small and medium-sized enterprises. The authors hypothesized MO, EO, and interaction orientation to have a direct, positive, and significant effect on firm performance as well as an indirect effect via innovation success (Nasir, Mamun, and Breen 2017). The authors introduced interaction orientation as a third strategic orientation (Nasir, Mamun, and Breen 2017). As described by Ramani and Kumar (2008), interaction orientation is the strong relationship between an organization and its customer, including goodwill and value generation. Unlike the majority of studies that included external environment measures as moderating variables, Nasir, Mamun, and Breen (2017) hypothesized market turbulence and competitive intensity as antecedents to MO, EO, and interaction orientation. The overall structural model proposed demonstrated acceptable model fit. As expected and consistent with prior research, the direct effects of MO and EO on firm performance were positive and significant (Barrett and Weinstein 1998; Slater and Narver 2000; Hult, Hurley, and Knight 2004; Buli 2017). Moreover, similar to Baker and Sinkula (2009), support was found for the indirect effect of MO and EO on performance via innovative success (Nasir, Mamun, and Breen 2017).

The direct effect of interaction orientation was not significant and discussion of this finding was limited (Nasir, Mamun, and Breen 2017). It may be possible that interaction orientation's influence on performance is overshadowed by the other more dominant strategic orientations. Alternatively, the interaction orientation construct may not be as important as the authors hypothesized. As it is a relatively new construct, further exploration of its influence on performance may be required. Additionally, the authors found support for market turbulence as a positive antecedent to MO, EO, and innovation orientation. While competitive intensity had a positive and significant relationship with EO, its effect on MO and interaction orientation was negative and significant. While these results are interesting, modelling these variables as antecedents is theoretically problematic. The external environment has been shown to influence the strength of the relationship between MO and performance (Ellis 2006) and EO and performance and it is not the environment that is the catalyst for such organizational orientations. The authors conclude EO is the most important strategic orientation, of which is debatable, and that the combination of high MO and high EO achieves the greatest levels of performance.

A number of studies have explored the combined influence of MO and EO on performance. Atuahene-Gima and Ko (2001) were among the first to explore the various combined effects of MO and EO on performance among Australian multi-industry firms. Performance was defined on a product basis and was measured by product market share, sales, sales growth, profitability, and perceived customer value. The authors tested several hypotheses based on how the differing market and entrepreneurial orientations influenced product performance (Atuahene-Gima and Ko 2001). Four organizational typologies were created, including high MO and high EO, high EO and low MO, low EO and high MO, and low EO and low MO (Atuahene-Gima and Ko 2001). Atuahene-Gima and Ko's (2001) central argument

posited that a high-high combination of organizational orientations will always generate the strongest performance. Their findings from MANOVAs and subsequent one-way ANOVAs suggested that firms with high MO and high EO had the greatest product performance, as compared to firms with high MO and low EO, high EO and low MO, and low MO and low EO (Atuahene-Gima and Ko 2001). The authors concluded that high MO and high EO yields the best performance results. Results of low MO and high EO as well high MO and low EO were less clear. For example, high MO and low EO organizations were shown to have stronger sales, yet high EO and low MO organizations were shown to generate more profits (Atuahene-Gima and Ko 2001). The authors suggested that firms with high EO and low MO often experience customer complaints, stifling sales (Atuahene-Gima and Ko 2001). This is a reasonable argument, given these organizations are less attuned to the marketplace. However, it may also be due to the innovation adoption lifecycle. According to Rogers (1962), sales from new innovations, particularly those of entrepreneurial organizations, grow gradually over time. Similar to high MO and high EO, the authors had a clear conclusion related to low MO and low EO organizations, as they were outperformed by all other typologies (Atuahene-Gima and Ko 2001). Atuahene-Gima and Ko (2001) concluded that the strongest organizational typology is one of high MO and high EO and that in high-low combination scenarios, MO and EO have differing effects on individual product performance metrics.

Similar to Nasir, Mamun, and Breen (2017), Song and Jing (2017) explored multiple strategic orientations' influence on performance among Malaysian service companies. However, unlike Nasir, Mamun, and Breen (2017), Song and Jing (2017) also explored the interaction effects of strategic orientations with performance. Specifically, the authors investigated the relationship of MO, EO, and technological orientation with new venture performance among

new ventures in China. Technological orientation was defined as the organizational principle stressing the importance of technologies in products and processes (Song and Jing 2017). Song and Jing (2017) measured new venture success as measured via market share growth, citing growth as the primary goal of new ventures. The authors hypothesized that individually, MO, EO, and technological orientation would have positive and statistically significant effects with new venture performance. Additionally, it was hypothesized that the interaction effect of MO and EO, as well as EO and technological orientation, would have a positive and significant effect on new venture performance. Through a series of regression models, the authors found support for the effect of EO and technological orientation, but not MO, on new venture performance. Song and Jing (2017) conclude that MO's lack of significance may be a result of a target market that is "small and clear" and that the "promotion and development become relatively less important" (p. 13). This conclusion is deeply concerning because a clearly defined target market is a direct result of an understanding of one's customers, customer orientation, and fundamental to MO theory. The lack of MO's significance with one performance measurement, namely market share growth, does not merit such broad conclusions. In fact, MO and EO's combined influence on market share growth was found to be positive and significant, supporting the powerful collective effect of the two constructs as found by Atuahene-Gima and Ko (2001). Similarly, EO and technological orientation's influence on market share growth was positive and significant. The authors conclude, much like previous findings, that combined strategic orientations support superior organizational performance (Atuahene-Gima and Ko 2001).

Boso, Story, and Cadogan (2013) explored the combined effect of MO and EO with sales performance and profitability among entrepreneurial organizations in Ghana, finding similar results to those Atuahene-Gima and Ko (2001). The authors hypothesized that the combination

of high MO and high EO improves business performance in the developing country of Ghana (Boso, Story, and Cadogan 2013). Specifically, the authors explored the relationship between the main effects and the interaction of MO and EO with sales performance and profitability (Boso, Story, and Cadogan 2013). Boso, Story, and Cadogan (2013) further hypothesized that social and business networks would moderate the interaction effect of MO and EO on both sales performance and profitability. Unlike many other similar explorations, Boso, Story, and Cadogan's (2013) study was longitudinal. The authors allowed for a one-year time lag between administering the organizational orientation and performance questionnaires (Boso, Story, and Cadogan 2013). The longitudinal study allowed for organizational orientations to take effect on the organizations' performance. Structural equation modelling was used to test their hypotheses and acceptable model fit was achieved for the various models (Boso, Story, and Cadogan 2013). It was concluded that the highest level of sales performance and profitability was achieved through high MO and high EO (Boso, Story, and Cadogan 2013). Moreover, this relationship was moderated and strengthened with high social and business relationships. Although the authors' findings are logical, predicated on sound academic rigour, and similar to those of Atuahene-Gima and Ko (2001), the importance of social and business networks needs to be demonstrated outside of the developing country of Ghana in order to assert that the findings are not artifacts of the environment. It is also curious why they chose to exclude organizations that were not deemed entrepreneurial, creating a potential sample bias. Nonetheless, Boso, Story, and Cadogan (2013) added further support for the high-high combination of MO and EO and achieving superior performance.

Unlike Atuahene-Gima and Ko (2001), Song and Jing (2017), and Boso, Story, and Cadogan (2013), Bhuian, Menguc, and Bell (2005) found that the MO and performance

relationship was strongest with moderate EO, as opposed to low or high EO. The authors concluded that high EO is not always desirable and will not always yield the highest organizational performance. Although the authors' conclusion supports the notion of balancing the pursuit of innovations with market needs, the generalizability of the findings is limited, as the sample was from non-profit U.S. hospitals. It is possible that non-profit hospitals are generally less entrepreneurial and the findings may be less relevant in more commercial environments, such as retail settings.

Based on the extant literature, the direct effect of MO on a multitude of performance metrics has been shown to be positive and significant (Barrett and Weinstein 1998; Slater and Narver 2000; Hult, Hurley, and Knight 2004; Baker and Sinkula 2009; Laukkanen, et al. 2013; Nasir, Mamun, and Breen 2017; Veidal and Korneliussen 2013; Buli 2017; Micheels and Boecker 2017). Moreover, in the few studies that differed, MO was measured using a non-conventional instrument (Song and Jing 2017). Similar to MO, EO has also been shown to be directly and significantly related to a number of performance metrics (Barrett and Weinstein 1998; Hult, Hurley, and Knight 2004; Laukkanen, et al. 2013; Micheels and Boecker 2017; Nasir, Mamun, and Breen 2017). However, the relationship between EO and profitability has been occasionally non-significant (Slater and Narver 2000; Baker and Sinkula 2009). The additive, combined, and interaction effect of MO and EO on various performance metrics has also been widely demonstrated, supporting the idea of a high MO and high EO combination in order to achieve superior organizational performance (Barrett and Weinstein 1998; Atuahene-Gima and Ko 2001; Song and Jing 2017). Studies have included innovativeness and innovative success as mediating variables, highlighting their importance in the MO and EO relationship with performance (Hult, Hurley, and Knight 2004; Baker and Sinkula 2009; Veidal and

Korneliussen 2013; Nasir, Mamun, and Breen 2017). Future research should continue to explore MO and EO's direct and combined effects on various performance metrics in different industries and cultural contexts as well as further explore innovations as mediating variables.

2.12 Research Purpose

Considering the business opportunity of the expanded scope of practice in Canadian community pharmacy, the research purpose is to explore how capitalizing on market knowledge and entrepreneurial opportunities influences non-financial and financial outcomes. Specifically, this dissertation is divided into three studies including a pilot study, semi-structured interviews, and a western Canadian study. The pilot study explores the influence of MO and EO on financial and non-financial performance among Saskatchewan community pharmacies. Semi-structured interviews were conducted with pharmacy managers and executives in order to gain insight into pharmacy performance and its antecedents. Specifically, the non-financial and financial instruments used in the pilot study were strengthened from the insight gained from interviews with subject-matter experts. Additionally, the semi-structured interviews informed the hypothesis develop used in the western Canadian study. Finally, the western Canadian study explored the influence of MO and EO on business innovations, expanded service innovations, improved health outcomes, and financial performance.

CHAPTER 3 PILOT STUDY

3.1 Hypotheses

3.1.1 Hypothesis One

An organization's ability to effectively incorporate strategic orientations can be a sustainable competitive advantage (Hult, Hurley, and Knight 2004). Two strategic orientations that have been shown to work together to increase organizational performance are MO and EO (Barrett and Weinstein 1998; Atuahene-Gima and Ko 2001; Boso, Story, and Cadogan 2013; Song and Jing 2017). In fact, in an analysis of various strategic orientations, MO and EO were found to be the most dominant in terms of generating organizational performance (Laukkanen, et al. 2013). Indeed, there is a natural link between an organization's MO and EO. Understanding the latent needs of customers and creating points of differentiation based on competitor information supports the development of entrepreneurial initiatives aimed at creating superior offerings in the marketplace. The link between these strategic orientations is applicable and particularly relevant in the context of community pharmacy. The need for pharmacies to be market-oriented, thus understanding patients' needs and health, as well as differentiating from competitors, has always been important. However, with the expanded scope of practice and faced with the decision to implement expanded services, being entrepreneurial, is highly connected to understanding patients' demands and competitors' strategies. Based on the extant literature that suggests MO and EO are highly related strategic orientations and given the contextual backdrop of community pharmacy in Canada, the first hypothesis was developed.

Hypothesis 1: Market and entrepreneurial orientation are positively correlated

3.1.2 Hypothesis Two

MO has been shown to have a direct, positive, and significant effect on financial and overall performance (Barrett and Weinstein 1998; Slater and Narver 2000; Hult, Hurley, and Knight 2004; Baker and Sinkula 2009; Laukkanen, et al. 2013; Buli 2017; Veidal and Korneliussen 2013; Micheels and Boecker 2017; Nasir, Mamun, and Breen 2017). Specifically, MO has been shown to be an antecedent to financial performance measured by profitability, gross margin, cash flow, sales growth, and market performance (Slater and Narver 2000; Hult, Hurley, and Knight 2004; Baker and Sinkula 2009; Laukkanen, et al. 2013; Buli 2017). Moreover, MO has been shown to be an antecedent to overall performance, organizational growth, and expected future performance (Barrett and Weinstein 1998; Hult, Hurley, and Knight 2004; Veidal and Korneliussen 2013; Micheels and Boecker 2017; Nasir, Mamun, and Breen 2017). In addition to the empirical evidence that supports the relationship between MO and financial performance, market-oriented organization are theorized as fulfilling the latent needs of customers or delivering expressed needs of customers at unprecedented levels (Jaworski, Kohli, and Sahay 2000). As such, a market-oriented organization, defined as both market-driven and market-driving, demand financial reward for such activities. In the context of community pharmacy, understanding patients' needs, tailoring services to those needs, and doing so in a way that is superior to competing pharmacies is likely to lead to financial reward in the form of long-term customer value. As shown by Nelson, et al. (1992), healthcare organizations that are patient-oriented and achieve high patient satisfaction are financially rewarded. Based on the preceding literature that supports the direct effect of MO and financial performance as well as the relevance of patient-focused orientations in healthcare, the second hypothesis was developed.

***Hypothesis 2:** Market orientation has a direct positive influence on a pharmacy's financial performance*

3.1.3 Hypothesis Three

MO has been shown to have a direct effect on a number of non-financial performance metrics (Raju, et al. 2000; Wood, Bhuian, and Kiecker 2000; Atuahene-Gima and Ko 2001; Vitale, Giglierano, and Miles 2003; Hult, Hurley, and Knight 2004; Lonial, et al. 2008; Laukkanen, et al. 2013; Veidal and Korneliussen 2013; Micheels and Boecker 2017). Although little research has been conducted in the area of pharmacy, MO was linked to higher patient quality of care in a study of U.S. hospitals (Wood, Bhuian, and Kiecker 2000). Practically, this finding has broad application for any number of healthcare professions. Simply, those healthcare professionals and organizations that spend a significant amount of time understanding patients and collectively utilizing patient information in an attempt to better serve patients are likely to improve health outcomes. In the context of community pharmacy, pharmacists that understand their patients' lifestyle, mental health, medical history, etc. are well positioned to utilize such information to better counsel patients, manage patient medications, etc. and ultimately achieve positive health outcomes. The third hypothesis was developed based on the limited empirical evidence and the theoretical argument that high levels of patient knowledge are advantageous for achieving non-financial performance.

***Hypothesis 3:** Market orientation has a direct positive influence on a pharmacy's non-financial performance*

3.1.4 Hypothesis Four

EO has been repeatedly shown to have a direct effect on overall performance metrics (Barrett and Weinstein 1998; Iyer and Doucette 2003; Hult, Hurley, and Knight 2004; Buli 2017;

Micheels and Boecker 2017). Of these studies, overall performance instruments included financial and non-financial performance metrics but did not explore EO's effect exclusively with financial performance. Of the limited extant literature that explored the EO and financial performance relationship, the main effect model was not significant (Slater and Narver 2000; Baker and Sinkula 2009). Baker and Sinkula (2009) propose that EO alone does not guarantee superior organizational performance, as it needs to be guided by a MO in order to determine the viability of the entrepreneurial endeavour. Similarly, Slater and Narver (2000) argue that EO's effect on financial performance is indirect via innovations or other mediating organizational variables. Indeed, extant literature suggests an EO and other strategic orientations work together to create financial benefits. However, non-strategic proactiveness, innovating, and risk-taking may not necessarily lead to favourable financial outcomes. In the context of community pharmacy, entrepreneurial activities such as implementing expanded pharmacy services without public payment may not have direct financial benefits. The fourth hypothesis was developed based on the preceding literature and the notion of a potential indirect or delayed financial benefit from EO.

***Hypothesis 4:** Entrepreneurial orientation will have a non-significant influence on a pharmacy's financial performance*

3.1.5 Hypothesis Five

As discussed, EO has been shown to have a direct effect on various organizational performance metrics (Barrett and Weinstein 1998; Hult, Hurley, and Knight 2004; Baker and Sinkula 2009; Laukkanen, et al. 2013; Veidal and Korneliussen 2013; Buli 2017; Micheels and Boecker 2017). Most commonly, EO has been shown to be an antecedent to organizational innovations (Doucette and Jambulingam 1999; Baker and Sinkula 2009; Veidal and

Korneliussen 2013; Micheels and Boecker 2017) and overall performance comprised of both financial and non-financial metrics (Barrett and Weinstein 1998; Iyer and Doucette 2003; Hult, Hurley, and Knight 2004; Buli 2017; Micheels and Boecker 2017) Using the same example from hypothesis four, entrepreneurial activities such as implementing expanded services with or without public payment are patient-focused and designed to improve the delivery of health services. As such, the entrepreneurial endeavour to implement expanded pharmacy services is likely to have a direct effect on patient care and health outcomes (non-financial metrics). Based on the large body of research supporting EO's direct effect on innovations and non-financial performance measures, the fifth hypothesis was developed.

***Hypothesis 5:** Entrepreneurial orientation has a direct positive influence on a pharmacy's non-financial performance*

3.1.6 Hypothesis Six

As described in the service-profit chain theory (Heskett, et al. 1994) and further supported by empirical investigations (Nelson, et al. 1992; Hallowell 1996; Loveman 1998; Gruca and Rego 2005; Chi and Gursoy 2009), customer satisfaction and perceived value has been shown to lead to customer loyalty and customer loyalty to financial reward. In community pharmacy, it is a logical proposition that serving the best interest of patients and their health is likely to create perceived value, trust, loyalty, and repeat business, linking the service-profit chain theory to community pharmacy. Moreover, as recent Canadian research would suggest, community pharmacy managers are successful at balancing their dual professional and business roles (Perepelkin and Dobson 2009; Perepelkin and Dobson 2010), suggesting a linkage between non-financial and financial outcomes in community pharmacy. The final hypothesis was developed based on the service-profit chain theory's application in pharmacy and the extant

literature supporting the balance of both professional and business duties by community pharmacists.

***Hypothesis 6:** Non-financial performance has a direct positive influence on a pharmacy's financial performance*

3.2 Methodology

3.2.1 Ethics Approval

Prior to disseminating the questionnaire, a research ethics application was submitted to the University of Saskatchewan's Behavioural Research Ethics Board. The research project was deemed exempt (BEH 15-205) from the ethics review process on July 15, 2015 (Appendix 2).

3.2.2 Study Design

The pilot study design was a web-based survey. In an attempt to increase the number of responses, several of Dillman, Smyth, and Christian's (2014) recommendations were employed. Specifically, e-mail messages were personally addressed to recipients, selectively timed initial and follow-up e-mails were sent, the link to the questionnaire was shortened, and the study was endorsed by a respected industry organization.

3.2.3 Questionnaire Development

The questionnaire's estimated completion time was between 10 and 15 minutes. The questionnaire was comprised of five series of questions (Appendix 3). The first series of questions asked respondents about their pharmacy's position in the industry. These questions measured pharmacy MO. The second series of questions asked respondents about their pharmacy's organizational practices. These questions measured pharmacy EO. The third series of questions asked respondents about their pharmacy's performance relative to competitors. These questions measured non-financial and financial performance. The fourth series of

questions asked respondents to indicate the importance of the previous performance questions. These questions were designed to measure the face validity of the performance items. The final series of questions asked respondents various demographic questions.

3.2.3.1 Market orientation instrument

An adapted 12-item Narver and Slater (1990) MO instrument was utilized in this study. Adaptations to the original instrument were related to the use of the word customer. Specifically, the word customer(s) was changed to patient(s). Additionally, references to specific business functions (e.g. marketing/sales) were eliminated due to lack of relevance.

3.2.3.2 Entrepreneurial orientation instrument

Although adapted for use in the U.S. pharmacy industry, Doucette and Jambulingam's (1999) modifications and adaptations were universal to North American pharmacy. Therefore, the 18-item Doucette and Jambulingam (1999) EO instrument was utilized in the pilot study.

3.2.3.3 Performance instrument

As discussed, the pilot study utilized several of Enwere, Keating, and Weber's (2014) pharmacy balanced scorecard components (Enwere, Keating, and Weber 2014). Component items were created based on the works of Enwere, Keating, and Weber (2014) as well as other literature surrounding pharmacy performance. The instrument's safety items were based on Enwere, Keating, and Weber's (2014) medication safety items with the inclusion of patient counselling. Patient counselling was added to the safety component, as pharmacists' role in medication management is increasingly important (Canadian Pharmacists Association 2016). The instrument's efficiency items related to Enwere, Keating, and Weber's (2014) operational items, namely dispensing efficiency and inventory management. Enwere, Keating, and Weber's (2014) quality component was changed to value offerings. The new component named offerings

included therapeutic interventions and three new items including expanded services, service quality, and quality of care. The expanded services item was added because of pharmacists' expanding role in Canada healthcare (Canadian Pharmacists Association 2016). Service quality was added, as it was a main component of the original balanced scorecard (Kaplan and Norton 1992). Quality of care was added to value offerings because positive health outcomes are paramount to pharmacy practice. Enwere, Keating, and Weber's (2014) education and research component was renamed education. Continued education internally or externally was included as it comprehensively measured new learning. The understanding of new drugs and therapies item was included, as it is essential to pharmacy practice. Finally, the financial component included profits, cost control, and return on investment.

3.2.4 Questionnaire Distribution and Data Collection

On August 3, 2015, personally addressed cover letters and e-mails (Appendix 4 and Appendix 5) containing a questionnaire link were sent to the 332 contacts in the Saskatchewan College of Pharmacy Professionals database. Reminder e-mails (Appendix 6) were sent on August 17, 2015 to those that had not responded. Data collection ended on September 8, 2015.

Table 3.1 Data Collection Timeline

Date	Activity
August 3, 2015	Cover letter and questionnaire link e-mailed
August 17, 2015	Reminder and questionnaire link e-mailed
September 8, 2015	Data collection concluded

3.2.5 Data Analyses

Data analyses were accomplished with the use of Statistical Package for the Social Sciences (SPSS ®) and its structural equation modelling package Amos. All descriptive, internal reliability, exploratory factor analysis, mean comparison, and multiple regression calculations

were performed using SPSS ®. Amos was used for CFA and structural equation modelling. The pilot study's hypotheses were tested via structural equation modelling using Amos as well as a series of multiple regression analyses using SPSS ®.

3.2.6 Structural Equation Modelling

Structural equation modelling combines CFA and path analysis, allowing the researcher to determine how observed variables are connected to latent variables as well as how latent variables are interconnected (Kline 2011). In regression analyses, the use of unweighted mean scores to represent constructs can potentially confound meaningful details (e.g. observed variable factor loadings). Therefore, structural equation modelling as opposed to a series of regression analyses allows for a more detailed understanding of component- and construct-level relationships. According to Bagozzi and Yi (1988), observed variables' factor loadings to latent variables must exceed 0.50 (Bagozzi and Yi 1988). Kline (2011) further suggests that factor loadings above 0.70 are strong and indicate convergent validity (Kline 2011). As it was expected that this study would yield a lower than ideal sample size ($N < 200$), in order to be more lenient, observed variables with factor loadings below 0.50 were eliminated.

The goal of structural equation modelling is to determine if “a theoretical model is supported by the data collected” (Schreiber 2008). There are a number of indices that assess a structural model's goodness of fit. The most common model fit indices include the ratio of chi-square to degrees of freedom (χ^2/df), Comparative Fit Index (CFI), and Root Mean Square Error of Approximation (RMSEA). According to Schreiber's (2008) recommendation for evaluating goodness of fit, the ratio of chi-square to degrees of freedom should be less than or equal to two ($\chi^2/df \leq 2$). According to Kline (2011), a model's CFI indicates “the relative improvement in fit of the researcher's model compared with a statistical baseline model” (p. 196). With respect to

CFI, acceptable model fit is considered to be greater than 0.90 (Bentler 1990) with good model fit equaling or greater than 0.95 (Hu and Bentler 1999). According to Kilne (2011), a model's RMSEA is the "badness-of-fit index where a value of zero indicates best fit" (p. 205). According to Hu and Bentler (1999), RMSEA should be less than or equal to 0.06 with confidence interval ranges from 0.00 to 0.08. Therefore, this study will assess both CFA and structural equation models using the preceding model fit indices ($\chi^2/df \leq 2$, $CFI \geq 0.90$, $RMSEA \leq 0.06$).

3.3 Results

3.3.1 Response Rate

As discussed, the initial e-mail message containing a link to the questionnaire was sent on August 4, 2015. A reminder e-mail message and a link to the questionnaire was sent on August 18, 2015. Prior to sending the reminder e-mail, 49 questionnaires were completed. Following the reminder e-mail message, 21 questionnaires were completed. Data collection ended on September 7, 2015. The total number of completed questionnaires was 70, yielding a response rate of 21.1% (70/332).

3.3.2 Market Orientation

3.3.2.1 Market orientation frequency

As previously discussed (3.2.3.1 Market orientation instrument), the 12-item MO instrument was utilized for this study. Responses to Q1, Q2 and Q3 were distributed toward *to a considerable extent/to a great extent* (Table 3.2). Responses to Q4, Q5, Q6, Q7, and Q12 were distributed toward *to a small extent/to a moderate extent* (Table 3.2). The remaining items (Q8, Q9, Q10 and Q11) were distributed toward *to a moderate extent/to a considerable extent* (Table 3.2).

Table 3.2 Market Orientation Frequency

	To no extent N (%)	To a small extent N (%)	To a moderate extent N (%)	To a considerable extent N (%)	To a great extent N (%)	Responses N (%)
(Q1) Our organizational objectives are driven primarily by patient satisfaction	0 (0)	1 (1.4)	8 (11.4)	28 (40)	33 (47.1)	70 (100)
(Q2) Our strategy for competitive advantage is based on our understanding of patients' needs	0 (0)	1 (1.4)	8 (11.4)	28 (40)	33 (47.1)	70 (100)
(Q3) Our organizational strategies are driven by our beliefs about how we can create greater value for patients	0 (0)	1 (1.4)	12 (17.1)	28 (40)	29 (41.4)	70 (100)
(Q4) We measure patient satisfaction systematically and frequently	8 (11.4)	17 (24.3)	20 (28.6)	13 (18.6)	11 (15.7)	69 (98.6)
(Q5) All organizational functions share information concerning competitors' strategies	9 (12.9)	19 (27.1)	27 (38.6)	12 (17.1)	1 (1.4)	68 (97.1)
(Q6) We rapidly respond to competitive actions that threaten us	4 (5.7)	20 (28.6)	22 (31.4)	16 (22.9)	7 (10)	69 (98.6)
(Q7) Top managers regularly discuss competitors' strengths and strategies	6 (8.6)	22 (31.4)	16 (22.9)	19 (27.1)	6 (8.6)	69 (98.6)
(Q8) We target where we have an opportunity for competitive advantage	6 (8.6)	12 (17.1)	24 (34.3)	15 (21.4)	11 (15.7)	68 (97.1)
(Q9) We freely communicate information about our successful and unsuccessful patient experiences across all organizational functions	4 (5.7)	15 (21.4)	22 (31.4)	23 (32.9)	5 (7.1)	69 (98.6)
(Q10) All organizational functions are integrated	1 (1.4)	6 (8.6)	24 (34.3)	26 (37.1)	13 (18.6)	70 (100)

in serving the needs of the target markets						
(Q11) All organizational functions understand how everyone in our organization can contribute to creating patient value	1 (1.4)	4 (5.7)	23 (32.9)	30 (42.9)	12 (17.1)	70 (100)
(Q12) We share resources with other organizational units	5 (7.1)	19 (27.1)	22 (31.4)	15 (21.4)	8 (11.4)	69 (98.6)

3.3.2.2 Market orientation loading

Following Churchill's (1979) first procedural recommendation, MO's internal reliability was evaluated. The 12-item instrument's Cronbach's alpha was 0.852, a good internal reliability ($0.80 \leq \alpha \leq 0.90$) as described by George and Mallery (2009). If any of the items were to be deleted, it would result in a worsening of the overall Cronbach's alpha. The results suggest a strong likelihood that items are drawn from the same domain (Churchill 1979).

Table 3.3 MO Item-Total Statistics

	Scale mean if item deleted	Scale variance if item deleted	Corrected item-total correlation	Cronbach's alpha if item deleted
(Q1) Our organizational objectives are driven primarily by patient satisfaction	36.91	50.515	0.399	0.849
(Q2) Our strategy for competitive advantage is based on our understanding of patients' needs	36.89	49.266	0.520	0.842
(Q3) Our organizational strategies are driven by our beliefs about how we can create greater value for patients	37.02	49.092	0.502	0.843
(Q4) We measure patient satisfaction systematically and frequently	38.17	45.526	0.487	0.845
(Q5) All organizational functions share information concerning competitors' strategies	38.58	47.202	0.539	0.840
(Q6) We rapidly respond to competitive actions that threaten us	38.21	46.047	0.538	0.840
(Q7) Top managers regularly discuss competitors' strengths and strategies	38.26	43.333	0.704	0.826
(Q8) We target where we have an opportunity for competitive advantage	38.03	47.353	0.425	0.849
(Q9) We freely communicate information about our successful and unsuccessful patient experiences across all organizational functions	38.09	47.253	0.500	0.843
(Q10) All organizational functions are integrated in serving the needs of the target markets	37.59	46.769	0.585	0.837
(Q11) All organizational functions understand how everyone in our organization can contribute to creating patient value	37.55	46.713	0.651	0.833
(Q12) We share resources with other organizational units	38.21	46.200	0.510	0.842

Per Churchill's (1979) second procedural recommendation, CFA was conducted in order to test the dimensionality of MO. Following Narver and Slater's (1990) conceptualization of MO being comprised of three behavioural components (customer orientation, competitor orientation, and interfuctional coordination), a three-dimensional first-order CFA model (Figure 3.1) was created and tested (Figure 3.1)

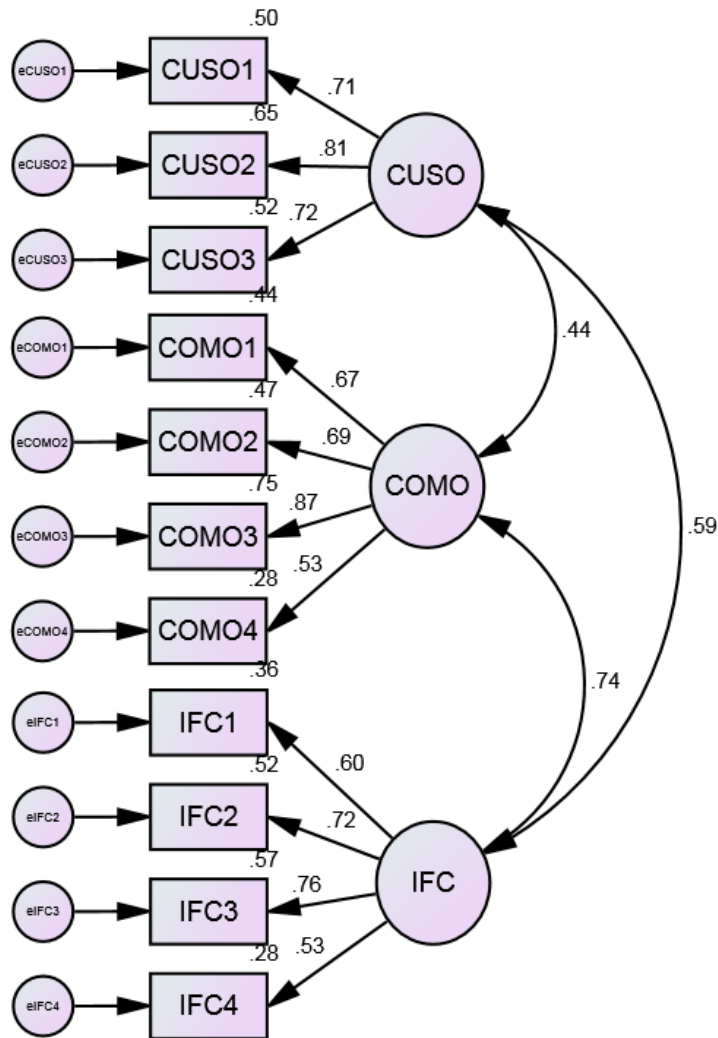


Figure 3.1 MO First-Order CFA Model

The fourth customer orientation item (Q4) did not meet the predetermined factor loading cutoff ($\beta < 0.50$) and was subsequently eliminated. All other standardized regression weights were positive, statistically significant ($p < 0.01$), and in the predicted direction (Table 3.4).

Table 3.4 First-Order MO Standardized Regression Weights

	Estimate
Q1 \leftarrow CUSO	0.707**
Q2 \leftarrow CUSO	0.807**
Q3 \leftarrow CUSO	0.722**
Q5 \leftarrow COMO	0.667**
Q6 \leftarrow COMO	0.688**
Q7 \leftarrow COMO	0.867**
Q8 \leftarrow COMO	0.532**
Q9 \leftarrow IFC	0.602**
Q10 \leftarrow IFC	0.719**
Q11 \leftarrow IFC	0.755**
Q12 \leftarrow IFC	0.525**

** $p < 0.01$, * $p < 0.05$

The three-dimensional first-order CFA model's χ^2/df , CFI, and RMSEA were 1.045, 0.992, and 0.026, respectively (Table 3.5). According to the predetermined cutoffs ($\chi^2/\text{df} \leq 2$, $\text{CFI} \geq 0.90$, $\text{RMSEA} \leq 0.06$), these fit indices demonstrated acceptable model fit.

Table 3.5 First-Order MO Model Fit Indices

Fit Indices	Model
χ^2	42.857
df	41
χ^2/df	1.045
CFI	0.992
RMSEA	0.026

Subsequently, a three-dimensional second-order CFA model was created and tested (Figure 3.2).

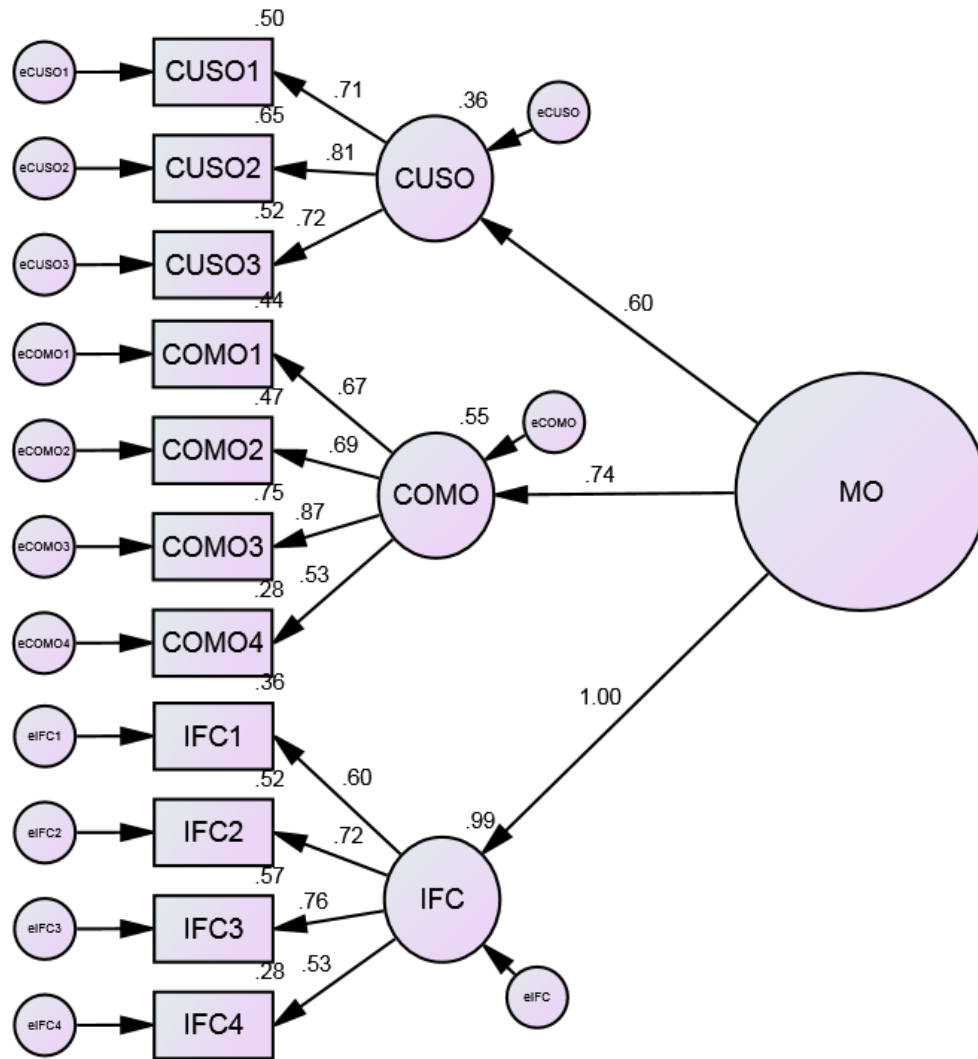


Figure 3.2 MO Second-Order CFA Model

Excluding Q4, all of the three-dimensional second-order CFA model's standardized regression weights were positive, statistically significant ($p < 0.01$), and in the predicted direction (Table 3.6).

Table 3.6 Second-Order MO Standardized Regression Weights

	Estimate
CUSO \leftarrow MO	0.596**
COMO \leftarrow MO	0.741**
IFC \leftarrow MO	0.996**
Q1 \leftarrow CUSO	0.707**
Q2 \leftarrow CUSO	0.807**
Q3 \leftarrow CUSO	0.722**
Q5 \leftarrow COMO	0.667**
Q6 \leftarrow COMO	0.688**
Q7 \leftarrow COMO	0.867**
Q8 \leftarrow COMO	0.532**
Q9 \leftarrow IFC	0.602**
Q10 \leftarrow IFC	0.719**
Q11 \leftarrow IFC	0.755**
Q12 \leftarrow IFC	0.525**

** $p < 0.01$, * $p < 0.05$

The three-dimensional second-order CFA model's fit indices were the same as the three-dimensional first-order CFA model's fit indices (Table 3.7).

Table 3.7 Second-Order MO Model Fit Indices

Fit Indices	Model
χ^2	42.857
df	41
χ^2/df	1.045
CFI	0.992
RMSEA	0.026

3.3.2.3 Market orientation conclusion

Both the three-dimensional first-order CFA model and three-dimensional second-order CFA model showed acceptable model fit indices. Due to the theoretical conceptualization that MO's three components work together and equally (Narver and Slater 1990), the three-dimensional was chosen over the three-dimensional first-order CFA model. The three-dimensional second-order CFA model was used in subsequent structural equation modelling and

an unweighted average of the 11 items was used as a composite index score in mean comparisons as well as regression and correlation analyses.

3.3.3 Entrepreneurial Orientation

3.3.3.1 Entrepreneurial orientation frequency

As previously discussed (3.2.3.2 Entrepreneurial orientation instrument), the 18-item Doucette and Jambulingam (1999) EO instrument was utilized for this study. Responses to Q13, Q16, Q18, Q19, Q21, Q22, Q24, Q25, and Q26 were distributed toward *neutral/agree* (Table 3.8). Responses to Q14, Q15, Q17, Q28, Q29, and Q30 distributed toward *agree/strongly agree* (Table 3.8). Responses to Q23 were weighted toward *neutral/strongly agree* and the remaining items (Q20 and Q27) were distributed toward *disagree/neutral* (Table 3.8).

Table 3.8 Entrepreneurial Orientation Frequency

	Strongly disagree N (%)	Disagree N (%)	Neutral N (%)	Agree N (%)	Strongly agree N (%)	Responses N (%)
(Q13) Our pharmacy takes action in anticipation of future market conditions	0 (0)	0 (0)	12 (17.1)	45 (64.3)	11 (15.7)	68 (97.1)
(Q14) We try to shape our business environment to enhance our presence in the market place	0 (0)	1 (1.4)	9 (12.9)	41 (58.6)	18 (25.7)	69 (28.6)
(Q15) Because market conditions are changing, we continually seek out new opportunities	0 (0)	1 (1.4)	9 (12.9)	41 (58.6)	18 (25.7)	69 (98.6)
(Q16) Our pharmacy is known as an innovator among pharmacies in our area	1 (1.4)	4 (5.7)	23 (32.9)	26 (37.1)	15 (21.4)	69 (98.6)
(Q17) We promote new and innovative services in our pharmacy	1 (1.4)	3 (4.3)	12 (17.1)	36 (51.4)	16 (22.9)	68 (97.1)
(Q18) Our pharmacy provides leadership in developing new services	1 (1.4)	4 (5.7)	19 (27.1)	29 (41.4)	15 (21.4)	68 (97.1)
(Q19) Taking gambles is part of our strategy for success	1 (1.4)	13 (18.6)	30 (42.9)	21 (30)	4 (5.7)	69 (98.6)
(Q20) We take above average risks in our business	0 (0)	27 (38.6)	30 (42.9)	10 (14.3)	2 (2.9)	69 (98.6)
(Q21) Taking changes is an element of our business strategy	0 (0)	16 (22.9)	31 (44.3)	19 (27.1)	3 (4.3)	69 (98.6)
(Q22) New service ideas suggested by employees are acted upon by decision-makers	0 (0)	6 (8.6)	17 (24.3)	38 (54.3)	8 (11.4)	69 (98.6)
(Q23) Management approves of independent activity by employees to develop new services	1 (1.4)	1 (1.4)	12 (17.1)	42 (60)	12 (17.1)	68 (97.1)
(Q24) Identifying new business opportunities is	0 (0)	9 (12.9)	14 (20)	38 (54.3)	8 (11.4)	69 (98.6)

the concern of all employees						
(Q25) We directly challenge our competitors	1 (1.4)	10 (14.3)	28 (40)	22 (31.4)	7 (10)	68 (97.1)
(Q26) We are responsive to manoeuvres of our rivals	0 (0)	6 (8.6)	28 (40)	29 (41.4)	4 (5.7)	67 (95.7)
(Q27) Our actions toward competitors can be termed aggressive	9 (12.9)	21 (30)	28 (40)	8 (11.4)	2 (2.9)	68 (97.1)
(Q28) We consider ourselves as having high motivation toward work	0 (0)	0 (0)	12 (17.1)	40 (57.1)	17 (24.3)	69 (98.6)
(Q29) Our employees are a group of hard working individuals	0 (0)	1 (1.4)	5 (7.1)	36 (51.4)	27 (38.6)	69 (98.6)
(Q30) At our pharmacy, we are very ambitious about our work	0 (0)	2 (2.9)	11 (15.7)	37 (52.9)	19 (27.1)	69 (98.6)

The 18-item instrument's Cronbach's alpha was 0.893, demonstrating good internal reliability (George and Mallery 2009) (Table 3.9). If Q27 were to be deleted, the overall Cronbach's alpha would improve slightly. If any of the other items were to be deleted, it would result in a worsening of the overall Cronbach's alpha. As the instrument's overall Cronbach's alpha was high and the deletion of Q27 would only yield a marginal improvement, Q27 was included in subsequent dimensionality analyses.

3.9 EO Item-Total Statistics

	Scale mean if item deleted	Scale variance if item deleted	Corrected item-total correlation	Cronbach's alpha if item deleted
(Q13) Our pharmacy takes action in anticipation of future market conditions	61.88	67.413	0.531	0.888
(Q14) We try to shape our business environment to enhance our presence in the market place	61.75	68.095	0.391	0.891
(Q15) Because market conditions are changing, we continually seek out new opportunities	61.77	65.389	0.650	0.884
(Q16) Our pharmacy is known as an innovator among pharmacies in our area	62.16	61.753	0.707	0.880
(Q17) We promote new and innovative services in our pharmacy	61.92	62.454	0.714	0.880
(Q18) Our pharmacy provides leadership in developing new services	62.09	61.769	0.720	0.880
(Q19) Taking gambles is part of our strategy for success	62.64	65.345	0.498	0.888
(Q20) We take above average risks in our business	63.03	66.126	0.477	0.889
(Q21) Taking changes is an element of our business strategy	62.72	64.142	0.615	0.884
(Q22) New service ideas suggested by employees are acted upon by decision-makers	62.13	66.492	0.498	0.888
(Q23) Management approves of independent activity by employees to develop new services	61.94	66.821	0.468	0.889
(Q24) Identifying new business opportunities is the concern of all employees	62.19	65.075	0.511	0.888
(Q25) We directly challenge our competitors	62.50	64.476	0.539	0.887
(Q26) We are responsive to manoeuvres of our rivals	62.42	66.883	0.470	0.889
(Q27) Our actions toward competitors can be termed aggressive	63.30	70.212	0.123	0.902

(Q28) We consider ourselves as having high motivation toward work	61.80	65.879	0.624	0.885
(Q29) Our employees are a group of hard working individuals	61.58	67.708	0.437	0.890
(Q30) At our pharmacy, we are very ambitious about our work	61.81	64.123	0.680	0.882

3.3.3.2 Entrepreneurial orientation loading

CFA was conducted in order to test the dimensionality of EO. Following Doucette and Jambulingam's (1999) conceptualization of EO being comprised of six dimensions (proactiveness, innovativeness, risk-taking, autonomy, competitive aggressiveness, and work ethic), a six-dimensional first-order CFA model (Figure 3.3) was created and tested.

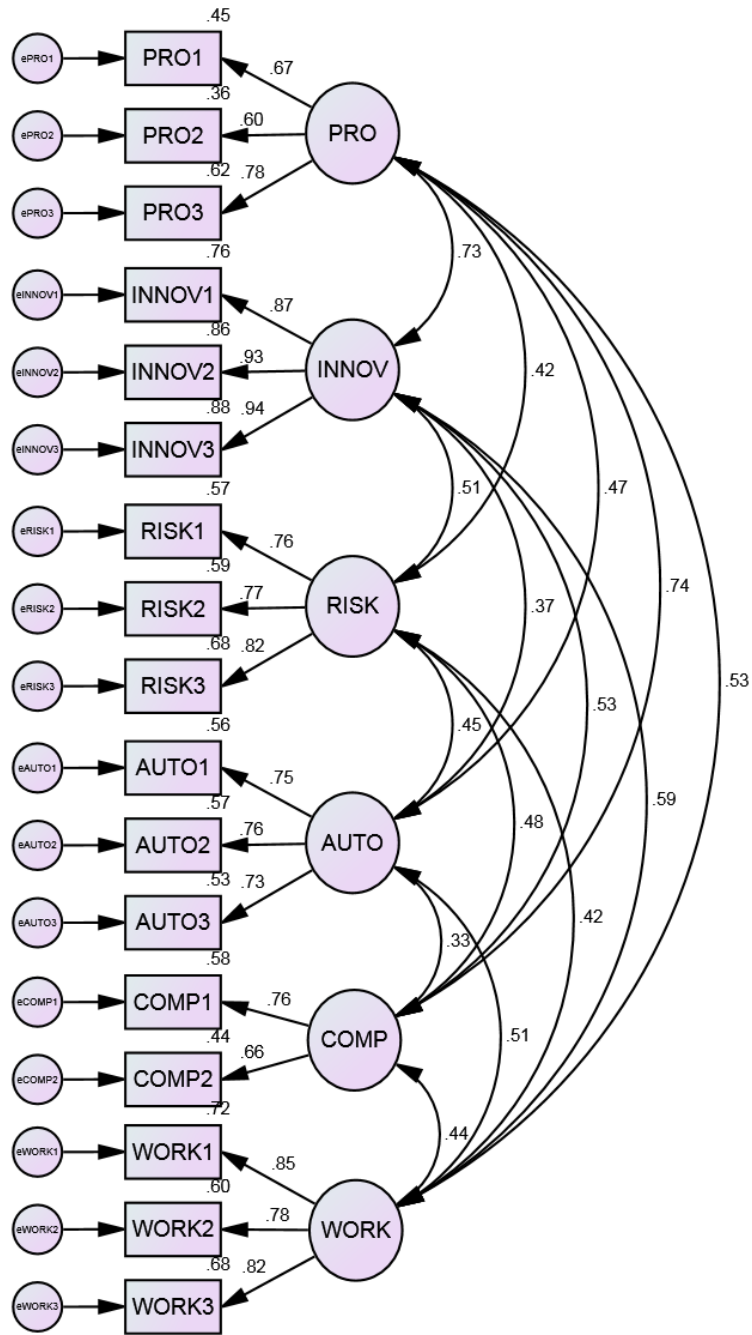


Figure 3.3 EO First-Order CFA Model

The third competitive aggressive item (Q27) did not meet the predetermined factor loading cutoff ($\beta < 0.50$) and was subsequently eliminated. All other standardized regression

weights were positive, statistically significant ($p < 0.001$), and in the predicted direction (Table 3.10).

Table 3.10 EO First-Order Standardized Regression Weights

	Estimate
Q13 \leftarrow PRO	0.673**
Q14 \leftarrow PRO	0.597**
Q15 \leftarrow PRO	0.784**
Q16 \leftarrow INNOV	0.871**
Q17 \leftarrow INNOV	0.925**
Q18 \leftarrow INNOV	0.936**
Q19 \leftarrow RISK	0.758**
Q20 \leftarrow RISK	0.765**
Q21 \leftarrow RISK	0.823**
Q22 \leftarrow AUTO	0.747**
Q23 \leftarrow AUTO	0.757**
Q24 \leftarrow AUTO	0.726**
Q25 \leftarrow COMP	0.760**
Q26 \leftarrow COMP	0.664**
Q28 \leftarrow WORK	0.847**
Q29 \leftarrow WORK	0.776**
Q30 \leftarrow WORK	0.823**

** $p < 0.01$, * $p < 0.05$

The three-dimensional first-order CFA model's χ^2/df , CFI, and RMSEA were 1.369, 0.933, and 0.073, respectively (Table 3.11). According to the predetermined cutoffs, the χ^2/df and CFI were, but RMSEA was not, acceptable.

Table 3.11 First-Order EO Model Fit Indices

Fit Indices	Model
χ^2	142.394
df	104
χ^2/df	1.369
CFI	0.933
RMSEA	0.073

Next, a six-dimensional second-order CFA model was created and tested (Figure 3.4).

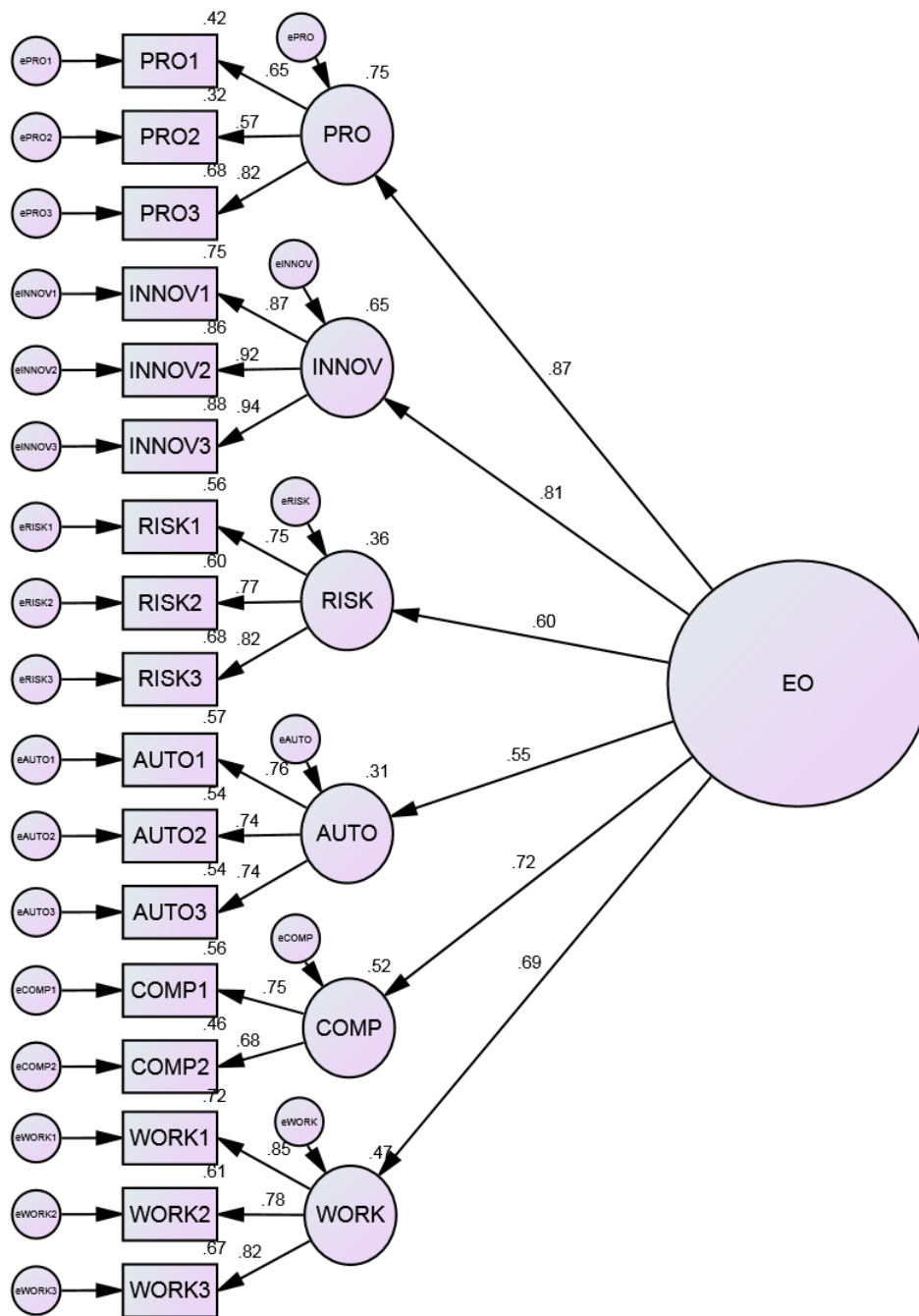


Figure 3.4 EO Second-Order CFA Model

Excluding Q27, all of the six-dimensional second-order CFA model's standardized regression weights were positive, statistically significant ($p < 0.01$), and in the predicted direction (Table 3.17).

Table 3.12 EO Second-Order Standardized Regression Weights

	Estimate
PRO \leftarrow EO	0.866**
INNOV \leftarrow EO	0.809**
RISK \leftarrow EO	0.602**
AUTO \leftarrow EO	0.553**
COMP \leftarrow EO	0.720**
WORK \leftarrow EO	0.688**
Q13 \leftarrow PRO	0.650**
Q14 \leftarrow PRO	0.567**
Q15 \leftarrow PRO	0.822**
Q16 \leftarrow INNOV	0.866**
Q17 \leftarrow INNOV	0.925**
Q18 \leftarrow INNOV	0.940**
Q19 \leftarrow RISK	0.751**
Q20 \leftarrow RISK	0.772**
Q21 \leftarrow RISK	0.824**
Q22 \leftarrow AUTO	0.758**
Q23 \leftarrow AUTO	0.736**
Q24 \leftarrow AUTO	0.737**
Q25 \leftarrow COMP	0.746**
Q26 \leftarrow COMP	0.676**
Q28 \leftarrow WORK	0.850**
Q29 \leftarrow WORK	0.779**
Q30 \leftarrow WORK	0.818**

** $p < 0.01$, * $p < 0.05$

The six-dimensional second-order CFA model's χ^2/df , CFI, and RMSEA were 1.348, 0.931, and 0.071, respectively (Table 3.13). According to the predetermined cutoffs, the χ^2/df and CFI were, but RMSEA was not, acceptable.

Table 3.13 Second-Order EO Model Fit Indices

Fit Indices	Model
χ^2	152.346
df	113
χ^2/df	1.348
CFI	0.931
RMSEA	0.071

3.3.3.3 Entrepreneurial orientation conclusion

As described by Kline (2011), without the adequate sample size required for structural equation modelling ($N > 200$), poor model fit indices are to be expected. The six-dimensional second-order CFA model was chosen over the six-dimensional first-order CFA model because of its theoretical conceptualization and prior use (Doucette and Jambulingam 1999). As such, the six-dimensional second-order CFA model was used in subsequent structural equation modelling and an unweighted average of the 17 items was used as a composite index score in mean comparisons as well as regression and correlation analyses.

3.3.4 Performance Instrument

3.3.4.1 Performance instrument frequency and loading

As previously discussed (3.2.3.3 Performance instrument), the 15-item balanced scorecard instrument was utilized for this study. Responses to items Q31, Q32, Q33, Q34, Q35, Q37, Q38, Q39, and Q44 were distributed toward *good/very good* (Table 3.14). Responses to Q40, Q41, Q42, and Q45 were distributed toward *average/good* (Table 3.14). Q36 was distributed toward *average/very good* (Table 3.14). Finally, Q44 was not skewed to any end of the scale (Table 3.14).

Table 3.14 Performance Frequency

	Very poor N (%)	Poor N (%)	Average N (%)	Good N (%)	Very good N (%)	Responses N (%)
(Q31) Ability to reduce medication-related harmful events	1 (1.4)	0 (0)	9 (12.9)	32 (45.7)	28 (40.0)	70 (100)
(Q32) Prescription filling accuracy	0 (0)	1 (1.4)	2 (2.9)	26 (37.1)	41 (58.6)	70 (100)
(Q33) Prescription and non-prescription patient counselling	0 (0)	1 (1.4)	8 (11.4)	33 (47.1)	28 (40)	70 (100)
(Q34) Prescription dispensing efficiency	0 (0)	1 (1.4)	8 (11.4)	31 (44.3)	30 (42.9)	70 (100)
(Q35) Inventory management	1 (1.4)	3 (4.3)	7 (10)	35 (50)	24 (34.3)	70 (100)
(Q36) Expanded services	0 (0)	7 (10)	12 (17.1)	39 (55.7)	12 (17.1)	70 (100)
(Q37) Successful therapeutic interventions	0 (0)	2 (2.9)	10 (14.3)	42 (60)	15 (21.4)	69 (98.6)
(Q38) Perceived service quality by patients	0 (0)	1 (1.4)	3 (4.3)	34 (48.6)	32 (45.7)	70 (100)
(Q39) Quality of care for patients	0 (0)	1 (1.4)	2 (2.9)	30 (42.9)	37 (52.9)	70 (100)
(Q40) Profits	0 (0)	4 (5.7)	12 (17.1)	44 (62.9)	10 (14.3)	70 (100)
(Q41) Cost control	1 (1.4)	3 (4.3)	25 (35.7)	35 (50)	6 (8.6)	70 (100)
(Q42) Return on investment	0 (0)	2 (2.9)	18 (25.7)	39 (55.7)	11 (15.7)	70 (100)
(Q43) Hours or students precepted	17 (24.3)	13 (18.6)	11 (15.7)	21 (30)	7 (10)	69 (98.6)
(Q44) Continued education internally or externally	0 (0)	1 (1.4)	14 (20)	34 (48.6)	21 (30)	70 (100)
(Q45) Understanding of new drugs and therapies	0 (0)	1 (1.4)	20 (28.6)	42 (60)	6 (8.6)	69 (98.6)

Churchill's (1979) paradigm was followed to develop a pharmacy performance instrument. The 15-item instrument's Cronbach's alpha was 0.854, demonstrating good internal reliability (George and Mallery 2009). The reliability analysis revealed that Q43 and Q44 had

near-zero item-total correlations and Cronbach's alpha would improve if the same two items were deleted (Table 3.15).

Table 3.15 Performance Item-Total Statistics

	Scale mean if item deleted	Scale variance if item deleted	Corrected item-total correlation	Cronbach's alpha if item deleted
(Q31) Ability to reduce medication-related harmful events	55.64	38.052	0.701	0.833
(Q32) Prescription filling accuracy	55.36	39.506	0.688	0.836
(Q33) Prescription and non-prescription patient counselling	55.60	39.275	0.652	0.837
(Q34) Prescription dispensing efficiency	55.61	40.514	0.470	0.846
(Q35) Inventory management	55.81	38.098	0.620	0.837
(Q36) Expanded services	56.09	39.598	0.467	0.846
(Q37) Successful therapeutic interventions	55.87	40.239	0.521	0.843
(Q38) Perceived service quality by patients	55.51	38.981	0.743	0.833
(Q39) Quality of care for patients	55.40	39.305	0.715	0.835
(Q40) Profits	56.04	40.771	0.440	0.847
(Q41) Cost control	56.31	40.552	0.455	0.846
(Q42) Return on investment	56.07	40.858	0.453	0.847
(Q43) Hours of students precepted	57.09	40.477	0.173	0.882
(Q44) Continued education internally or externally	55.82	42.331	0.265	0.856
(45) Understanding new drugs and therapies	56.10	41.004	0.503	0.845

Exploratory factor analysis was conducted in order to test the dimensionality of the pharmacy performance instrument. The results of the exploratory factor analysis suggested that there were three dominant factors. The principal component analysis revealed that Q43 loaded on a fourth factor that represented a distinctly different phenomenon (Table 3.16). Additionally, Q44 loaded poorly on all factors (Table 3.16).

Table 3.16 Performance Component Matrix^a

	Component			
	1	2	3	4
(Q31) Ability to reduce medication-related harmful events	0.800	-0.285	-0.158	0.074
(Q32) Prescription filling accuracy	0.787	-0.106	-0.251	0.106
(Q33) Prescription and non-prescription patient counselling	0.758	-0.120	0.024	-0.264
(Q34) Prescription dispensing efficiency	0.605	0.289	-0.358	-0.104
(Q35) Inventory management	0.726	0.322	-0.242	0.105
(Q36) Expanded services	0.513	-0.291	0.550	-0.154
(Q37) Successful therapeutic interventions	0.599	-0.343	0.359	-0.388
(Q38) Perceived service quality by patients	0.824	-0.120	-0.044	0.023
(Q39) Quality of care for patients	0.808	-0.164	-0.213	0.159
(Q40) Profits	0.477	0.638	0.419	-0.077
(Q41) Cost control	0.524	0.590	-0.119	0.297
(Q42) Return on investment	0.508	0.672	0.308	-0.116
(Q43) Hours of students precepted	0.190	-0.109	0.566	0.720
(Q44) Continued education internally or externally	0.330	-0.596	-0.035	0.261
(45) Understanding new drugs and therapies	0.585	-0.267	0.032	-0.126

In order establish content validity, respondents were asked to assess the relative importance of each performance item (Table 3.17).

Table 3.17 Importance of Performance Items

	N	Minimum	Maximum	Mean	Std. Deviation
(Q46) Ability to reduce medication-related harmful events	70	3	5	4.46	0.606
(Q47) Prescription filling accuracy	70	3	5	4.66	0.508
(Q48) Prescription and non-prescription patient counselling	69	2	5	4.38	0.666
(Q49) Prescription dispensing efficiency	70	2	5	4.39	0.708
(Q50) Inventory management	70	2	5	4.13	0.797
(Q51) Expanded services	69	2	5	4.07	0.810
(Q52) Successful therapeutic interventions	68	2	5	4.13	0.771
(Q53) Perceived service quality by patients	70	1	5	4.46	0.716
(Q54) Quality of care for patients	70	3	5	4.50	0.558
(Q55) Profits	69	2	5	3.94	0.745
(Q56) Cost control	69	2	5	3.83	0.766
(Q57) Return on investment	69	2	5	3.88	0.676
(Q58) Hours of students precepted	69	1	5	3.06	1.305
(Q59) Continued education internally or externally	69	1	5	4.04	0.794
(Q60) Understanding new drugs and therapies	70	1	5	3.99	0.771

Q43 was eliminated based on its near-zero item-to-total correlation, the improvement in Cronbach's alpha coefficient when deleted, its loading on a fourth factor that represented a distinct dissimilar phenomenon, and the item's lack of importance assessed by pharmacy managers. Specifically, Q58 (the importance of Q43) had the lowest score ($\bar{x} = 3.06$) relative to all other performance items ($\bar{x} = 4.13$). Q44 was eliminated based on its weak item-to-total correlation, the slight improvement in Cronbach's alpha coefficient when deleted, and its poor loading on any one factor.

The remaining 13-item's Cronbach's alpha was 0.885, demonstrating good internal reliability (George and Mallery 2009). Following Enwere, Keating, and Weber's (2014) conceptualization of pharmacy performance instrument being comprised of six dimensions (safety, quality, efficiency, financial, and knowledge), a six-dimensional second-order CFA model was created and tested. The resulting model fit was poor, justifying modifications and numerous model iterations. As with previous CFA models, items that loaded poorly were eliminated. The final 12-item model included two interrelated variables labeled non-financial performance (NFP) and financial performance (FP) (Figure 3.5).

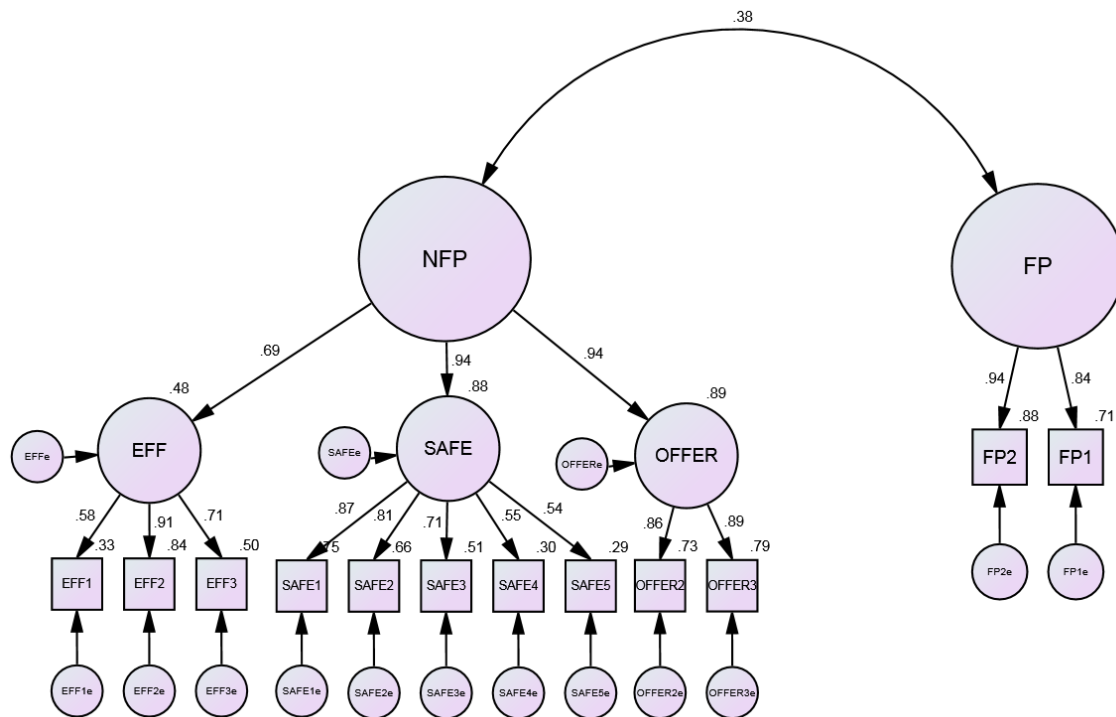


Figure 3.5 Performance CFA Model

NFP was comprised of three first-order latent variables (value offerings, safety, and efficiency) (Table 3.18). Value offerings included Q38 and Q39. Safety included Q31, Q32, Q33, Q37, and Q45. Efficiency included Q34, Q35, and Q41. FP was comprised of Q40 and Q42.

Table 3.18 Items and Corresponding Variables

Item	Latent Variable
(Q31) Ability to reduce medication-related harmful events	Safety (SAFE)
(Q32) Prescription filling accuracy	Safety (SAFE)
(Q33) Prescription and non-prescription patient counselling	Safety (SAFE)
(Q34) Prescription dispensing efficiency	Efficiency (EFF)
(Q35) Inventory management	Efficiency (EFF)
(Q36) Expanded services	N/A
(Q37) Successful therapeutic interventions	Safety (SAFE)
(Q38) Perceived service quality by patients	Value offerings (OFFER)
(Q39) Quality of care for patients	Value offerings (OFFER)
(Q40) Profits	Financial (FP)
(Q41) Cost control	Efficiency (EFF)
(Q42) Return on investment	Financial (FP)
(Q43) Hours of students precepted	N/A
(Q44) Continued education internally or externally	N/A
(Q45) Understanding new drugs and therapies	Safety (SAFE)

The final model's standardized regression weights were positive and statistically significant ($p < 0.001$) (Table 3.19).

Table 3.19 Performance Standardized Regression Weights

	Estimate
OFFER \leftarrow NFP	0.942**
SAFE \leftarrow NFP	0.939**
EFF \leftarrow NFP	0.690**
Q40 \leftarrow FP	0.844**
Q42 \leftarrow FP	0.938**
Q38 \leftarrow OFFER	0.857**
Q39 \leftarrow OFFER	0.886**
Q31 \leftarrow SAFE	0.868**
Q32 \leftarrow SAFE	0.813**
Q33 \leftarrow SAFE	0.713**
Q37 \leftarrow SAFE	0.550**
Q45 \leftarrow SAFE	0.541**
Q34 \leftarrow EFF	0.577**
Q35 \leftarrow EFF	0.914**
Q41 \leftarrow EFF	0.705**

** $p < 0.01$, * $p < 0.05$

The final CFA model's χ^2/df , CFI, and RMSEA were 1.369, 0.933, and 0.073, respectively (Table 3.20). According to the predetermined cutoffs, the χ^2/df and CFI were, but RMSEA was not, acceptable.

Table 3.20 Performance Model Fit Indices

Fit Indices	Model
χ^2	79.057
Df	50
χ^2/df	1.581
CFI	0.930
RMSEA	0.092

3.3.4.2 Performance instrument conclusion

As described by Kline (2011), without the adequate sample size required for structural equation modelling, poor model fit indices are to be expected, especially with more complex and less established models. Although the CFA model's RMSEA was not acceptable, its χ^2/df and CFI were acceptable and it produced the best model fit indices compared to rival models. As such, the interrelated performance instrument was used in subsequent structural equation modelling.

3.3.5 Non-Response Bias

According to Armstrong and Overton (1977), subjects that respond later, as opposed to earlier, more closely resemble non-responders. Therefore, in the absence of non-responder questionnaires, key constructs can be compared among early and late responses to determine the existence of a non-response bias (Armstrong and Overton 1977).

Questionnaires that were received prior to the reminder e-mail message (August 17, 2015) were deemed early responses, while all others received after that week were regarded as

late responses. Of the 70 usable responses, 29 were classified as early and 41 were classified as late responses.

Independent sample t-tests were conducted to compare the group of early responders and the group of late responders, based on their group mean scores of MO and EO. There were no significant differences among the groups' MO ($t(68) = -1.504, p = 0.137$) and EO ($t(67) = 0.103, p = 0.918$) scores.

3.3.6 Demographic Variables

The following sections present demographic variable results including the respondent's role, pharmacy manager's education, pharmacy type, and monthly prescriptions filled.

3.3.6.1 Respondent's role

The first demographic question asked respondents to specify their organizational role. Thirty-two were managers (45.7%), 29 were owners/managers (41.4%), eight were owners (11.4%), and one was a managing partner (1.4%).

Table 3.21 Respondent's Role

Role	Responses N (%)
Owner	8 (11.4)
Owner/Manager	29 (41.4)
Manager	32 (45.7)
Managing Partner	1 (1.4)
Total	70 (100)

3.3.6.2 Pharmacy manager's education

The second demographic question asked respondents to state the pharmacy manager's educational background. Educational backgrounds were subsequently classified into three

categories including Bachelor of Science in Pharmacy (entry-to-practice degree), Bachelor of Science in Pharmacy and another degree, and some other degree type.

Table 3.22 Pharmacy Manager's Education

Education	Responses N (%)
Bachelor of Science in Pharmacy	53 (75.7)
Bachelor of Science in Pharmacy and another degree	7 (10)
Other	1 (1.4)
Missing data	9 (12.9)
Total	70 (100)

3.3.6.3 Pharmacy type

The third demographic question asked the respondent to specify the pharmacy type.

Twenty-six pharmacies were independent (37.1%), 17 were franchises (24.3%), 14 were chains (20.0%), and 12 were grocery or mass merchandiser (17.1%).

Table 3.23 Pharmacy Type

Role	Responses N (%)
Independent	26 (37.1)
Franchise	17 (24.3)
Chain	14 (20)
Grocery/mass merchandiser	12 (17.1)
Missing data	1 (1.4)
Total	70 (100)

3.3.6.4 Monthly prescriptions filled

The final demographic question asked respondents to state the number of monthly prescriptions filled by their pharmacy. This question was designed to capture a pharmacy size.

Table 3.24 Monthly Prescriptions Filled

Prescriptions	Responses N (%)
0-1,999	14 (20)
2000-3,999	15 (21.4)
4,000-5,999	11 (15.7)
6,000-7,999	4 (5.7)
8,000-9,999	6 (8.6)
≥ 10,000	9 (12.9)
Missing data	11 (15.7)
Total	70 (100)

3.3.7 Structural Equation Modelling

Based on the delineated hypotheses and using the previous CFA models, a structural equation model was created and tested (Figure 3.6).

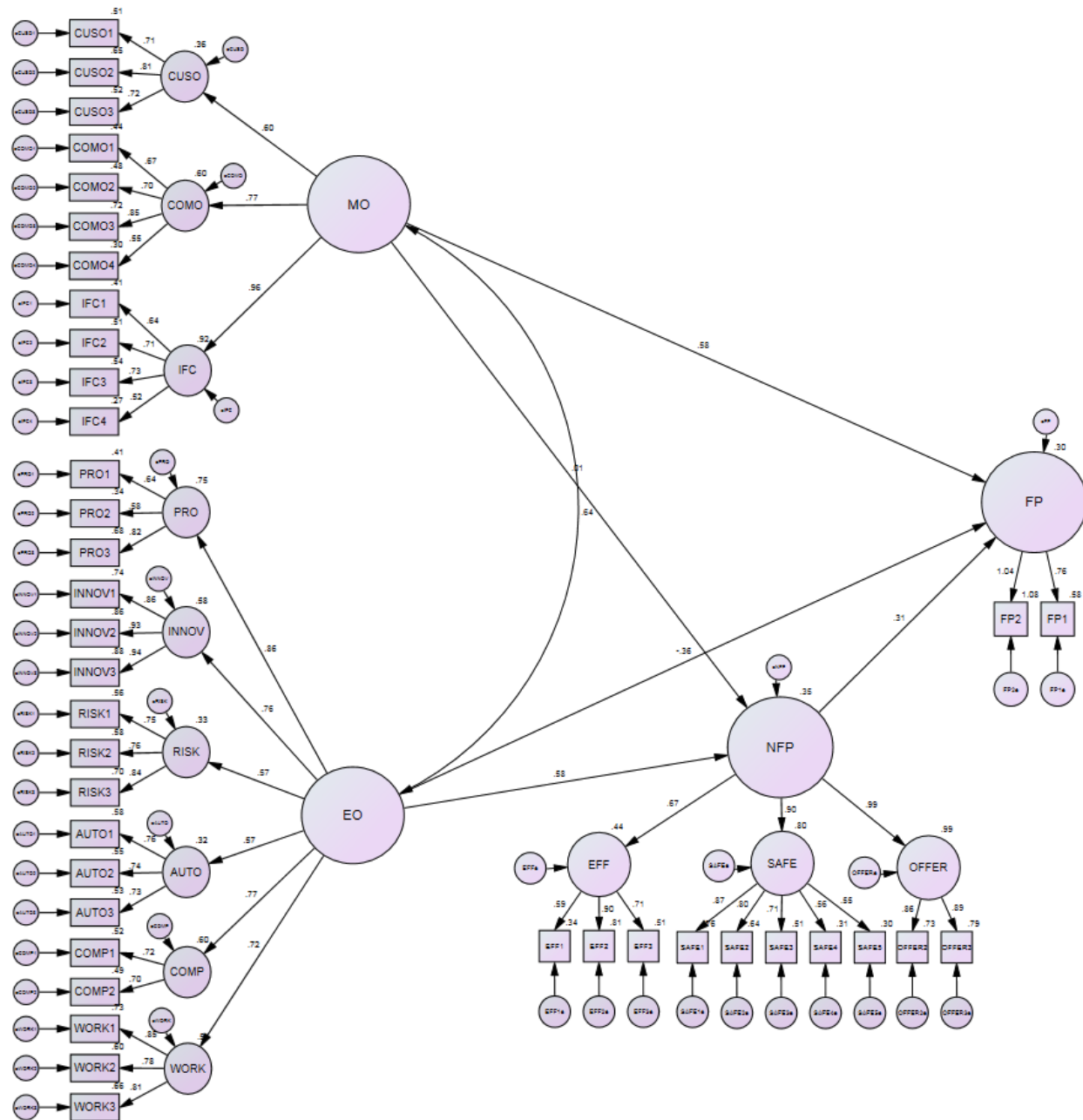


Figure 3.6 Pilot Study Structural Model

In the structural equation model's path analysis, only MO's effect on FP and EO's effect on NFP were positive and statistically significant ($p < 0.05$) (Table 3.25). Additionally, the correlation between MO and EO was positive and statistically significant ($p < 0.05$) (Table 3.26).

Table 3.25 Structural Model Standardized Regression Weights

	Estimate
CUSO \leftarrow MO	0.600**
COMO \leftarrow MO	0.774**
IFC \leftarrow MO	0.961**
PRO \leftarrow EO	0.864*
INNOV \leftarrow EO	0.761*
RISK \leftarrow EO	0.572*
AUTO \leftarrow EO	0.568*
COMP \leftarrow EO	0.774*
WORK \leftarrow EO	0.717*
SAFE \leftarrow NFP	0.896**
OFFER \leftarrow NFP	0.993**
EFF \leftarrow NFP	0.666**
NFP \leftarrow MO	0.010
NFP \leftarrow EO	0.581**
FP \leftarrow MO	0.581*
FP \leftarrow EO	-0.357
FP \leftarrow NFP	0.310

** $p < 0.01$, * $p < 0.05$

Table 3.26 Correlations

	Estimate
EO \leftrightarrow MO	0.637

The structural model's χ^2/df , CFI, and RMSEA were 1.475, 0.775, and 0.083, respectively (Table 3.27). According to the predetermined cutoffs ($\chi^2/\text{df} \leq 2$, $\text{CFI} \geq 0.90$, $\text{RMSEA} \leq 0.06$), these figures did not demonstrate acceptable model fit. Again, without an adequate sample size for complex structural models, poor fit indices are to be expected and interpreting results can be problematic (Kline 2011). Therefore, little can be discerned from the structural equation model results.

Table 3.27 Pilot Study Model Fit Indices

Fit Indices	Model
χ^2	1,065.266
df	722
χ^2/df	1.475
CFI	0.775
RMSEA	0.083

The squared multiple correlations of the two endogenous variables NFP and FP were 0.345 and 0.303 (Table 3.28).

Table 3.28 Pilot Study Model Squared Multiple Correlations

	Estimate
NFP	0.345
FP	0.303

3.3.8 Correlation and Regression

Due to the small sample size, additional correlation and regression analyses were completed in order to test the hypotheses.

3.3.8.1 Correlation analysis

In order to explore hypothesis one, a correlation analysis of the two constructs was tested using MO and EO's group mean scores. The correlation coefficient between MO and EO was 0.488 and statistically significant ($p < 0.01$), supporting the first hypothesis and the constructs' discriminant validity.

Table 3.29 MO and EO Correlations^b

		MO	EO
MO	Pearson Correlation	1	
	Sig. (2-tailed)		
EO	Pearson Correlation	0.488	1
	Sig. (2-tailed)	0.000	

b. Listwise N=69

3.3.8.2 Regression analysis

A series of regression analyses were performed in order to gain further insight into the hypothesized model (Figure 3.6). For each respondent, the 11 MO items, 17 EO items, 10 NFP items, and two FP items were averaged, creating an unweighted composite index score for each construct. Listwise deletion was used to treat missing data.

The first regression model that used MO as the independent variable and FP as the dependent variable, as well as the second regression model that included MO and EO as independent variables and FP as the dependent variable, showed MO as having a positive and statistically significant effect on FP. Therefore, the first and second regression models provided support for hypothesis two. Hypothesis three was tested via the third regression model that included MO as the independent variable and NFP as the dependent variable as well as the fourth regression model that included MO and EO as independent variables and NFP as the dependent variable. In the third regression model, MO has a positive and statistically significant effect on NFP, however it becomes non-significant in the fourth regression model after EO was introduced as an additional independent variable. Consequently, the interpretation of hypothesis three is less obvious. The fourth hypothesis that proposed the EO and FP relationship would be non-significant was supported in the second and fifth regression model. In the sixth regression model, EO was shown to have a positive and statistically significant effect on NFP. EO's positive and statistically significant effect on NFP was also shown in the fourth regression model, providing support for hypothesis five. The final hypothesis that suggested NFP would have a direct and positive effect on FP was supported in the seventh regression model.

Table 3.30 Regression Model Results

Model	Independent Variable(s)	Dependent Variable	Unstandardized Coefficients (Standard Error)	Standardized Coefficients	Significance
1	MO	FP	0.395 (0.127)	0.352	0.003
2	MO EO	FP	0.311 (0.140) 0.080 (0.184)	0.296 0.058	0.030 0.666
3	MO	NFP	0.290 (0.093)	0.358	0.003
4	MO EO	NFP	0.111 (0.100) 0.437 (0.129)	0.138 0.418	0.270 0.001
5	EO	FP	0.236 (0.170)	0.168	0.168
6	EO	NFP	0.506 (0.114)	0.484	0.000
7	NFP	FP	0.593 (0.154)	0.429	0.000

3.4 Pilot Study Discussion

The pilot study results, both the structural equation model and the correlation analysis, supported the first hypothesis that suggested MO and EO are related and complementary strategic orientations. Intuitively, there is a natural link between understanding patients and creating innovations that fulfill their needs in a manner that differs from competing pharmacies. This was evident among Saskatchewan community pharmacies, as organizational strategies to understand the latent needs of patients, differentiate from competing pharmacies, and disseminate information throughout pharmacies to better serve patients was found to be correlated with the complicative drive and motivation to be the be the first to implement innovations. Additionally, the finding added to the body of research that supports the connection between a MO and EO (Barrett and Weinstein 1998; Atuahene-Gima and Ko 2001; Song and Jing 2017). While an important finding, it is recognized that its generalizability is limited to the sample of Saskatchewan community pharmacies and ultimately requires further exploration involving greater depth and breadth.

The second hypothesis that posited MO would have a direct and positive effect on FP was supported in both the structural equation model and subsequent regression analyses.

Although the interpretation of the structural equation model was problematic given the sample size, the regression results supported MO's effect on FP. This finding was similar to previous studies that suggested an organization's orientation toward the market lead to greater financial return (Slater and Narver 2000; Hult, Hurley, and Knight 2004; Baker and Sinkula 2009; Laukkanen, et al. 2013; Buli 2017). This finding mirrors the results of Nelson, et al. (1992) and generally supports the service-profit chain theory, as organizations that focused on delivering value to customers, or patients in the case of pharmacy, are financially rewarded. These results suggest Saskatchewan community pharmacies that understand patients' latent needs and aim to fulfill them better than their competitors are rewarded financially through higher profits and return on investment. Despite the support through multiple means of analysis, it is noteworthy to mention that no control variables or additional strategic orientations, besides EO, were included in the models. Although support was found for MO's importance in driving Saskatchewan community pharmacies' profit and return on investment, a retesting of MO's effect on financial metrics with control and other strategic organizational variables in a larger sample would add further confidence to the claim that MO leads to FP in community pharmacy.

Unlike MO's relationship with FP, it was found that MO was not directly related to NFP in both the structural equation model and one of the regression models. While the main effect MO and NFP model was found to be positive and statistically significant, the regression model that included MO and EO as independent variables and NFP as the dependent variable found a non-significant relationship between MO and NFP. Given the results of other regression analyses that supported the direct effect of EO on NFP, it could be interpreted that MO's effect on NFP was mediated by EO (Baron and Kenny 1986). However, it is more theoretically plausible that several of the NFP components were more correlated with entrepreneurial

activities (e.g. new offerings). Moreover, for reasons described previously, it is unlikely that MO's effect on patient safety, a NFP dimension, is anything but direct. Due to the limited sample size and the few included variables, the ability to reveal more detailed relationships was somewhat limited. Certainly, the inclusion of additional strategic orientations and variables with a larger sample size would allow for a deeper and broader understanding of MO's effect on community pharmacy NFP.

As proposed above, entrepreneurial activities are conceptually applicable when creating organizational efficiencies and new offerings. Therefore, not surprisingly, the relationship between EO and NFP was found to be statistically significant in all models. Particularly, the results of the pilot study suggest entrepreneurial-oriented Saskatchewan community pharmacies are likely to create new offerings and efficiencies that have positive patient health outcomes. While these results are limited to a sample of Saskatchewan community pharmacies, they are consistent with previous findings that demonstrated EO influenced the implementation of new offerings and pharmacy practice change (Doucette and Jambulingam 1999; Doucette et al. 2012). These similarities further demonstrate EO's importance in pharmacy and highlight its relevance as a dominant strategic orientation in multiple domains.

Despite EO's importance in generating high levels of NFP, its direct effect with FP was found to be non-significant. As previously discussed, it is necessary to couple EO with strategic business motivations, as non-strategic entrepreneurial activities may not lead to increased financial return. The hypothesis that EO's effect on FP would be non-significant was supported. Recall, this was hypothesized because the implementation of new offerings may not be ones that directly translate into more revenue. No doubt, entrepreneurial activities combined with market-oriented strategies create value, however EO's effect on financial performance has seldom been

demonstrated as direct. Rather, it is the perceived satisfaction and value of entrepreneurial activities that demand financial reward. As the sixth hypothesis suggests, quality of care, efficiency, or new offerings translates into trust and long-term customer value or financial return. While, the path analysis of the structural equation model did not support a significant relationship between NFP and FP, the regression analysis using NFP as the independent variable and FP as the dependent variable was positive and statistically significant. Although the acceptance of hypothesis six was not entirely supported, it is reasonable to speculate the link between the patient health dimension of NFP and FP. Applying the service-profit chain theory (Heskett, et al. 1994), serving the best interest of patients is likely to create patient value, trust, loyalty, and ultimately profit. After all, what is more valuable than one's health?

Overall, the pilot study demonstrated promising results but there were several limitations. The first limitation was the sample size. Although the response rate was higher than a recent study of Canadian pharmacists (Jorgenson, et al. 2016) and comparable to a similar exploration of Canadian pharmacy managers' strategic orientations (Perepelkin and Dobson 2010), the sample size prohibited the effective use and interpretation of the structural equation model. Despite the attempt to reanalyze the various relationships with a series of regression models, the advantages of structural equation modelling, related to the simultaneous and complex exploration of relationships, were lost. The second limitation of the study was its scope. Collecting data from community pharmacies in a single province is limiting in terms of the generalizability of the findings. However, the pilot study was designed to inform a larger study as opposed to being used to make broad-reaching inferences. The final limitation of the pilot study was the single-respondent approach, as one respondent per pharmacy answered all questions in the survey. As senior-level managers have been shown to provide more reliable responses (Phillips 1981), the

questionnaire stated that it should be completed by an individual that could best speak to the organizational strategies and practices. Notwithstanding, the study's sample size, scope, and potential single-respondent bias were limitations of the pilot study. In an attempt to gain a deeper and broader understanding of constructs and their relatedness, in-depth interviews with subject-matter experts were conducted, followed by a larger survey of western Canadian community pharmacies.

CHAPTER 4 SEMI-STRUCTURED INTERVIEWS

4.1 Semi-Structured Interviews

Semi-structured interviews are a form of data collection that involve asking participants a series of specific and predetermined, yet open-ended, questions (Given 2008). The open-ended nature of semi-structured interviews enables researchers to obtain rich data that permits qualitative analyses (Given 2008).

4.2 Purpose

Semi-structured interviews were undertaken with subject-matter experts in order to further develop community pharmacy-specific performance measurements and gain a deeper understanding of its possible antecedents. Per Churchill's (1979) recommendations, interviews with subject-matter experts were undertaken in order to further develop the financial and non-financial performance instruments from the pilot study.

4.3 Methodology

4.3.1 Ethics Approval

Prior to undertaking the semi-structured interviews, ethics approval was sought from the University of Saskatchewan's Behavioural Research Ethics Board. The research project was deemed exempt (BEH 16-403) from the ethics review process on October 28, 2016 (Appendix 7).

4.3.2 Sample

Purposeful sampling is a technique that employs the researcher's judgement to select participants based on the research question (Matheson 2005). Purposeful sampling was used to select subject-matter experts as interview participants. Subject-matter experts were defined as

community pharmacy managers or executives in Western Canada. Community pharmacy managers and executives were chosen as interview participants due to their comprehensive knowledge of pharmacy operations. As there is no requirement for sample size in qualitative research (Richards and Morse 2013), semi-structured interviews were continued until data saturation was realized. According to Richards and Morse (2013), data saturation exists when each data category is rich, thick, and replicated.

4.3.3 Interview Protocol

The semi-structured interviews followed a specific protocol involving an introduction to the session, explanation of the interview process, a brief statement of the topic, followed by the research questions (Appendix 8). The research questions were designed to explore the topic of community pharmacy performance. Specifically, how community pharmacy performance is measured and what organizational practices influence the various performance metrics. Although the questions were predetermined, the nature of semi-structured interviews is more conversational and questions can be added or subtracted.

4.3.4 Interview Process

Initially, faculty members of the University of Saskatchewan's College of Pharmacy and Nutrition recommended a number of potential subject-matter experts for the researcher to interview. Potential interview participants were first contacted via e-mail. E-mail messages to potential participants described how the researcher obtained their contact information as well as a brief description of the study and request to participate. As the initial interviews progressed, additional subject-matter experts were identified and subsequently contacted. After agreeing to participate, a consent form was sent to each participant via e-mail. The consent form outlined the purpose of the study, potential risks and benefits, storage of data, confidentiality assurance,

and right to withdraw (Appendix 9). After the consent form was signed and received by the researcher, telephone interviews were scheduled. The first interview was conducted on December 12, 2016 with the final interview completed on February 13, 2017 (Table 4.1). Data saturation was achieved after eight semi-structured interviews.

Table 4.1 Interview Timeline

Date	Subject-Matter Expert's Role	Duration (Minute:Second)
12/12/2016	Chief Executive Officer	34:10
12/28/2016	Pharmacy Manager	40:30
12/29/2016	Pharmacy Owner	48:58
01/19/2017	Pharmacy Owner	30:48
01/31/2017	Pharmacy Manager	24:40
02/02/2017	Pharmacy Manager	24:31
02/10/2017	Pharmacy Manager	35:41
02/13/2017	Director of Operations	30:56

4.3.5 Interview Transcription

All semi-structured interviews were audio recorded and subsequently transcribed verbatim by the University of Saskatchewan's Social Science Research Laboratories. All participants were sent a copy of the interview transcript via e-mail for review. Participants were encouraged to review the transcript and given the opportunity to elaborate, edit or redact passages. All eight participants approved their interview transcript with no alterations. The researcher randomly checked passages of all interviews, comparing the audio recording and transcription. All transcriptions were complete and verbatim. However, a limited number of domain-specific acronyms or terms were incorrectly captured. After these infrequent errors were rectified, data analysis commenced.

4.3.6 Data Analyses

The qualitative analysis software NVivo was used as an analysis tool to conduct a thematic analysis of the semi-structured interview data. According to Braun and Clarke (2006), thematic analysis is widely employed and is a “foundational method for qualitative analysis” (p. 77). Thematic analysis is the process of discovering data patterns in order to generate concepts and establish their interconnectedness (Braun and Clarke 2006). According to Braun and Clarke (2006), there are six phases of thematic analysis. In the first phase, the researcher gets familiar with the data by reading the interview transcripts multiple times while making notes in the process (Braun and Clarke 2006). In the second phase, the researcher systematically creates initial data codes for all ideas present in the interview transcripts (Braun and Clarke 2006). In the third phase, the researcher searches for larger concepts in the data and combines similar codes into potential themes (Braun and Clarke 2006). In the fourth phase, the researcher creates a thematic map that includes the identified themes, their associated codes, and their interconnectedness (Braun and Clarke 2006). In the fifth phase, the researcher clearly defines the theme and its content (Braun and Clarke 2006). Phases one through five refine and organize the data with little elaboration or interpretation. In the final phase, the researcher discusses themes in detail and provides examples using passages from interview transcripts (Braun and Clarke 2006).

4.3.7 Researcher’s Background

Due to the interpretive nature of qualitative research, it is important to understand the researcher’s background, as biases may be present (Creswell 1998). This section describes the background of the researcher and was written in first-person.

My interest in business management and entrepreneurship began at a very early age. In the early 1990s, my mom (business graduate) and dad (software engineer and mathematician) started a computer consulting business and commercial real estate company. I have many fond memories of my parents working together to create and maintain their successful businesses. In addition to business management and entrepreneurship, I always enjoyed learning. Therefore, it was a logical decision for me to pursue a business degree. In 2011, I earned a Bachelor of Commerce in Marketing with Honours and Distinction from the University of Saskatchewan's Edwards School of Business. My Honours research project explored direct-to-consumer advertising of prescription drugs. This project was my first exposure to both academic research and social administrative pharmacy. Due to my growing interest in academic research, I pursued graduate studies. In 2013, I earned a Master of Science degree from the University of Saskatchewan's College of Pharmacy and Nutrition. My thesis was business and managerial focused, as it explored the relationship between pharmaceutical companies' strategic orientations and business performance. The year following the completion of my Master's degree, I missed the academic research. In the same year, I learned how the expanded scope of practice in Canada was presenting entrepreneurial opportunities for pharmacists. In 2014, I started a Doctor of Philosophy degree with the intent to explore strategic orientations and performance in the dynamic community pharmacy environment.

My interest in the expanded scope of practice and how it creates an entrepreneurial opportunity may be considered somewhat of a bias. Additionally, due to my upbringing and educational background, my assertion of high value to strong business acumen may also be considered somewhat of a bias.

4.4 Thematic Analysis

4.4.1 Phase One

The University of Saskatchewan's Social Science Research Laboratories sent all transcripts to the researcher and researcher's supervisor on April 11, 2017. Subsequently, per Braun and Clarke's (2006) recommendations, the researcher actively read each transcript in order to become familiar with the data and to identify patterns.

4.4.2 Phase Two

In order to establish trustworthiness, the researcher and the researcher's supervisor independently coded six randomly selected pages from the transcripts. The researcher's supervisor was the most strategic choice for independent coding due to academic background and domain-specific knowledge similarity. After independent coding was complete, the researcher and the researcher's supervisor met to compare and discuss their coding decisions. In the few instances where coding differed, the researcher and the researcher's supervisor discussed their coding decisions and came to a mutually agreeable code. Using NVivo, the researcher organized data from all transcripts into initial codes. Following the recommendations of Braun and Clarke (2006), the researcher coded liberally, creating an initial list of 57 codes (Appendix 10).

4.4.3 Phase Three

Using NVivo, the researcher combined similar codes from the initial list and eliminated anomaly codes, thereby creating a refined list of codes. Table 4.2 shows the initial codes that were combined based on similarity.

Table 4.2 Combined Codes

Original Code	New Code
Prescription volume Number of prescriptions dispensed	Prescription volume
Customer satisfaction Customer service Reduced wait times Offering consistency Service quality	Service quality
Pharmacist hours vs. prescriptions dispensed Dispensing efficiency	Dispensing efficiency
Reducing harmful events Recording near misses	Reducing harmful events
Patient counselling Medication reviews	Parent counselling
Workflow efficiency Workflow and time management	Workflow efficiency

The researcher defined anomaly codes as both unrelated to all other codes and only referenced once throughout all transcripts. Specifically, the sales to wages ratio, market share, employee engagement, and community involvement codes were eliminated. Finally, codes from the refined list were grouped based on similarity, forming eight potential themes (Appendix 11).

4.4.4 Phase Four, Five, and Six

4.4.4.1 Financial performance

Prescription volume, revenue, cost of goods sold, margins, earnings, profits, and return on investment were grouped to form the first theme. These codes were grouped together because they can be used to assess the financial strength of community pharmacies. As such, this theme was labelled *financial performance*. Using NVivo's mind map feature, a thematic map was created (Figure 4.1).

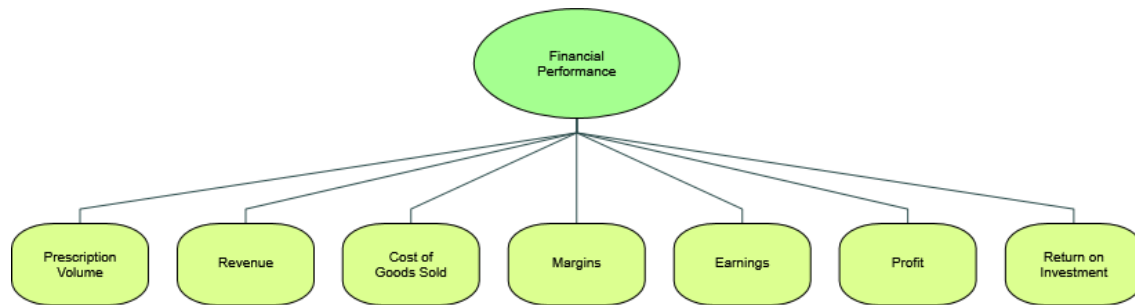


Figure 4.1 Financial Performance

The first theme, *financial performance*, was largely thought of as central to community pharmacy. One pharmacy manager respondent stated that:

...pharmacy is a business and they're trying to make money so it's going to be a large emphasis on maximizing profit.

Many other respondents referenced earnings and profit as key financial performance metrics. Prescription volume was another commonly mentioned financial performance metric.

When asked about the most important financial performance metric, one pharmacy owner stated:

...my measure would be focused on transactions, number of prescriptions filled.

Another frequently discussed financial performance metric was return on investment.

One pharmacy owner stressed the need to evaluate return on investment in the following statement:

... I'm going to look at areas where I'm going to be able to improve the return in the pharmacy.

In addition to earnings, profit, prescription volume, and return on investment, respondents described growing revenues, lowering the cost of goods sold, and increasing margins as important indicators of financial performance.

4.4.4.2 Non-financial performance

Reducing harmful events, successful interventions, prescription filling accuracy, understanding drugs, and patient counselling were grouped to form the second theme. These codes were grouped based on their potential to increase patient safety. As such, this theme was labelled *safety*. Respondents regularly discussed how attention to detail and prescription filling accuracy were critical to patient safety. When asked how to best ensure patient safety, one pharmacy manager said:

...incorrect scripts, we've got to watch that. That becomes important to monitor because all of a sudden if you get a lot of those then that's obviously a big professional problem.

One pharmacy manager described the importance of pharmacist education with the scope of practice changes, stating:

...we do a lot of pharmacist training. We work with everyone to make sure that they are up to date on guidelines and that sort of thing. With the profession moving toward more pharmacy services and more medication assessments there is greater risk if you have pharmacists that are making recommendations that aren't appropriate.

Respondents described the reduction of harmful events, successful therapeutic interventions, prescription filling accuracy, understanding new drugs and therapies, and patient counselling as important measures of patient safety.

Expanded scope of practice, quality of care, service quality, and medication synchronization were grouped to form the third theme. These codes were grouped together because they all represented a valuable patient offering. Therefore, this theme was labelled *value offerings*. Respondents described how participation in expanded services differentiates pharmacies from their competition and provides better patient care. Specifically, one respondent

described the benefit of how multiple valuable patient offerings such as medication reviews and care plans lead to the ultimate performance measurement, positive health outcomes.

Respondents described expanded service offerings, quality of care, service quality, and medication synchronization as key value offerings.

Inventory management, workflow efficiency, dispensing efficiency, staffing ratios, and cost management were grouped to form the fourth theme. These codes were grouped together because all codes were representative of operational efficiency. Therefore, this theme was labelled *efficiency*. Most respondents described their established inventory management system. For example, one pharmacy manager said:

...we keep maximums and minimums on things, and if we know that it's a drug that's been sitting around for a long time, we either return it or reduced the minimum quantity so we don't keep ordering a bunch of stuff we don't need.

Several respondents described how the increased use of technicians could allow pharmacists to focus on non-dispensing activities, leading to improved workflow and health outcomes in addition to reducing costs.

The second, third, and fourth themes captured different, yet interconnected, pharmacy non-financial performance metrics. Using the second, third, and fourth theme, a macro theme titled *non-financial performance* was created. NVivo's mind map feature was used to create a non-financial performance thematic (Figure 4.2).

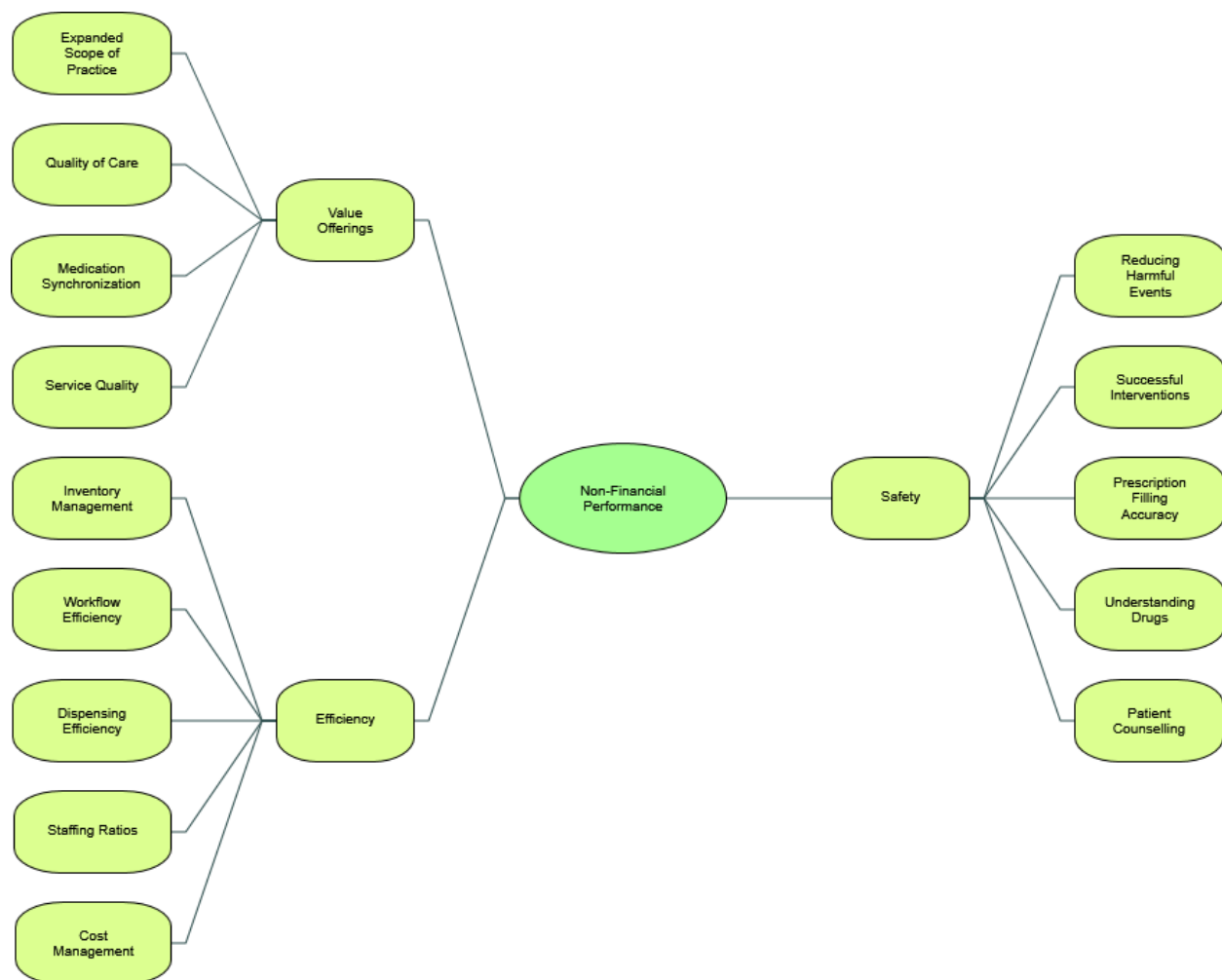


Figure 4.2 Non-Financial Performance

4.4.4.3 Business and professional debate

Pressure to meet prescription volume quotas was described as a business objective that undermined the pharmacy profession. Professional recommendations that did not result in profit were not necessarily ideal for pharmacies as businesses. The notion of being a professional before a business person demonstrated the prioritization of roles within the profession. Therefore, prescription volume quotas, alternative professional recommendations, and profession first codes were grouped to form the fifth theme titled *contrasting objectives*. Respondents presented three major arguments for why business and professional objectives contrast. The first

argument related to prescription volume quotas. One pharmacy manager argued that prescription volume quotas contrasted professional duties stating:

...the business drive impacts the patient outcome because you are not able to spend enough time, or as much time, making a meaningful impact on their daily health...that's maybe one way I could see they contrast a bit.

The second argument related to how a professional recommendation may not result in a direct profit but would be in the best interest of the patient. Specifically, the pharmacy owner said if it is in the best interest of the patient, the recommendation may not be a prescription, stating:

I'm pushing away business, so it's got to be an important decision if I'm to actually make that decision not to sell [the patient] this particular product.

The third argument, related to the second argument, is the notion of pharmacists being a professional first and business person second.

Serving the best interest of the patient was described as generating financial reward in the long-run. The inclusion of business courses and degree programs in pharmacy schools supports the link between business and the profession. The increasing remuneration for expanded services was described as evidence that the business and professional objectives are becoming more aligned. Therefore, enlightened self-interest, business in pharmacy schools, and remuneration for expanded services were grouped to form the sixth theme titled *aligned objectives*.

The following quote from a pharmacy owner supports the first argument that business and professional objectives are complementary:

...you might not make money today, but [the patient] saw your ability to see their problem and advice and counsel and then saw the amount of effort you put into it

and that would sort of pay into the lifetime value, or pay you back on the back end kind of thing.

The quote above describes the enlightened self-interest theory. Specifically, by serving the best interest of the patient, the pharmacist will benefit in the long-term.

The second argument that linked business and professional objectives referenced the growing business and management teachings in pharmacy schools. One respondent described how the importance of business knowledge is further recognized by the profession and incorporated into more and more curriculums. The final argument supporting the complementary relationship between business and professional objectives related to remuneration. Overall, respondents had positive attitudes toward linking financial compensation to more professional activities. The CEO stated:

...it's nice to see that pharmacies are actually being paid for [expanded professional services] now.

Using NVivo's mind map feature, a thematic map was created to demonstrate the opposing viewpoints related to the business and professional debate (Figure 4.3).

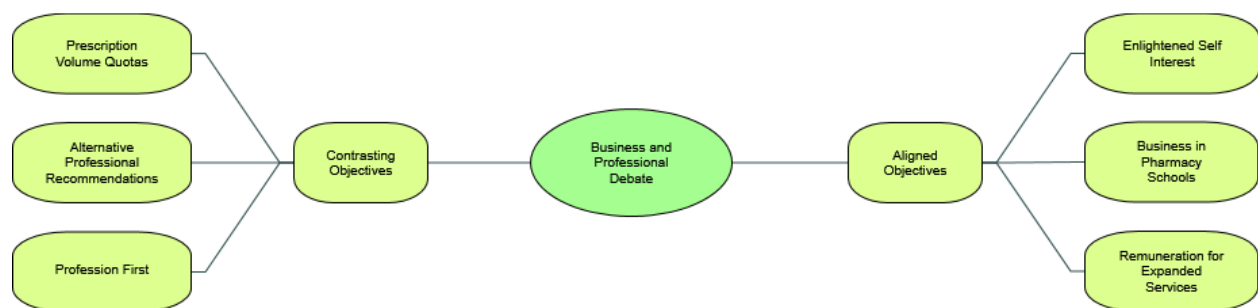


Figure 4.3 Business and Professional Debate

4.4.4.4 Antecedents to performance

Several codes were created that described various organizational strategies as possible antecedents to financial and non-financial performance. Based on these codes, two themes were created including *antecedents to financial performance* and *antecedents to non-financial performance*. As opposed to creating a thematic map, the researcher tabulated responses from the semi-structured interviews.

All eight participants agreed that customer orientation, interfunctional coordination, innovativeness, and work ethic were antecedents to financial performance. Seven out of eight participants agreed that risk-taking, proactiveness, and competitive aggressiveness were antecedents to financial performance. Six of the eight participants agreed that autonomy was an antecedent to financial performance and four of the eight participants agreed that competitor orientation was an antecedent to financial performance. Table 4.3 summarizes the participants' agreement with the potential antecedents of financial performance.

Table 4.3 Antecedents of Financial Performance

Antecedent	Participant Agreement
Customer orientation	8/8
Competitor orientation	4/8
Interfunctional coordination	8/8
Proactiveness	7/8
Innovativeness	8/8
Risk-taking	7/8
Autonomy	6/8
Competitive aggressiveness	7/8
Work ethic	8/8

All eight participants agreed that customer orientation, interfunctional coordination, and work ethic were antecedents to non-financial performance. Seven of the eight participants agreed that proactiveness, innovativeness, and risk-taking were antecedents to non-financial

performance. Six of the eight participants agreed that autonomy was an antecedent to non-financial performance. Five of the eight participants agreed that competitive aggressiveness was an antecedent to non-financial performance. Similar to financial performance, only four of the eight participants believed that competitor orientation was an antecedent to non-financial performance. Table 4.4 summarizes the participants' agreement with the potential antecedents of non-financial performance.

Table 4.4 Antecedents of Non-Financial Performance

Antecedent	Participant Agreement
Customer orientation	8/8
Competitor orientation	4/8
Interfunctional coordination	8/8
Proactiveness	7/8
Innovativeness	7/8
Risk-taking	7/8
Autonomy	6/8
Competitive aggressiveness	5/8
Work ethic	8/8

All participants described customer orientation as important to both the financial and non-financial performance of community pharmacies. The following quote was from one pharmacy owner, but it broadly represents all of the other respondents' expressed beliefs:

...knowing your customer is integral and would definitely [influence] non-financial... building relationships and creating loyalty would definitely reflect in your financials as well.

Competitor orientation's relationship with financial and non-financial performance was less obvious. Half of the participants described competitor orientation as important to financial and non-financial success. These participants described competitor intelligence as important to performance because it allowed for differentiation. For example, one pharmacy owner said:

...we try to do things that are different and we will differentiate ourselves from the competition.

These participants further described that competitor intelligence is only beneficial when used for monitoring, not imitating, purposes. The remaining participants viewed competitor orientation as moderately, or not at all, related to pharmacy performance.

Similar to customer orientation, interfunctional coordination was also described by all participants as important to both the financial and non-financial performance of community pharmacies. One pharmacy manager stated rather simply:

If you're not coordinated between each other... you're not going to succeed.

One participant described how every member of the organization needs to be committed to a common goal in order to best serve patients and profit in the process. Others described the organizational-wide commitment of delivering value to customers as the single most important driver of financial performance.

Participants were convinced that customer orientation and interfunctional coordination were drivers of both financial and non-financial performance in community pharmacy. Generally, competitor orientation was thought of as less important than customer orientation and interfunctional coordination, but played a role in competitive differentiation and created some financial and non-financial value.

Seven of the eight participants stated that being proactive in the marketplace was essential to driving non-financial and financial performance. Of the seven respondents that agree it was important, most described the various non-financial and financial benefits of first-mover-advantages.

All eight participants agreed that innovativeness was linked to financial performance and seven of the eight participants agreed that it was linked to non-financial performance.

Participants highlighted the importance of innovating to serve patient needs, stating that financial gains would likely follow. Moreover, one pharmacy owner made it clear that innovations do not have to be overly complex as long as they designed to benefit patients. The pharmacy owner described how the creation of semi-private counselling areas with computers allowed their pharmacy to provide better care.

...that brought us closer to the patient but it still allowed the dispensing work to be done without interfering with the conversation with patients... you could get access to the patient profile... that gave us one more tool to provide, better access patients' specific information, diagnostics, as well as their complete drug history... all those little incremental improvements gave us more and more and improved our ability to manage drug therapy.

Innovativeness and risk-taking were often discussed together. Several respondents suggested that there is a risk requirement for innovating, meaning that some risk must be assumed in order to create successful innovations. For example, the CEO said:

...if you want a leg up on your competition, you have to be innovating and you have to be able to take some risk.

Similar to innovativeness, seven of the eight respondents described business risk-taking, not professional risk-taking, as critical to community pharmacy financial and non-financial performance.

Six of the eight participants agreed that autonomy led to both financial and non-financial performance within community pharmacy. Supporters of autonomy described how giving autonomy created an environment where all employees took ownership of their roles, leading to high non-financial performance. One pharmacy manager described how the right amount of

autonomy can lead to both financial and non-financial performance:

...if you give enough autonomy to reflect the person's aptitude, typically you will gain financially, and if everyone does their job, an increase in the non-financial metrics.

Critics of autonomy cautioned that giving too much may result in negative impacts on the non-financial metrics, resulting in loss of profit. Combining the all respondents' comments on autonomy, it is clear that striking the right balance is critical and may even lead to improved performance.

Seven of the eight participants agreed that competitive aggressiveness was favourable for financial performance. One pharmacy manager simply stated:

...being competitive is good for finance.

However, respondents were less aligned with regard to non-financial performance. One pharmacy manager cautioned that market competitiveness may not have the patients' best interests in mind, stating:

...I find that sometimes we have people in our industry who are trying to steal patients or are [stealing patients]. Having [patients] where they best fit with the best healthcare provider would be better for their health outcome than being wherever we offer the best competition to get them there.

Contrarily, another participant argued market competitiveness, specifically advertising to patients about how pharmacists can help with smoking cessation, positively influences increases health outcomes.

A strong work ethic was described by all pharmacists as critical to financial and non-financial performance. One pharmacy manager explained how going the extra mile was always important:

...They can call me at ten o'clock at night because their child is sick and they need something to be picked up, so I've never hesitated to say no. I say, "I'll be down at the pharmacy in ten minutes" because that's all it takes to get there or five minutes to get there. But it's good, it's been a good ride and it's been good for where we are.

All respondents described work ethic being related to relationships with patients and greater health outcomes. Moreover, all participants explained that work ethic led to strong financial success.

4.5 Semi-Structured Interviews Discussion

The semi-structured interviews provided meaningful findings that added further depth of knowledge to the business and professional debate as well as pharmacy performance and its possible antecedents.

Though the duality of a pharmacist's role was described as challenging at times, discussions were mostly centred on how the two objectives were complementary. Although business acumen was deemed important, pharmacists' professional duties were described as primary. This supported Perepelkin and Dobson's (2010) findings that Canadian pharmacists held strong professional orientations regardless of pharmacy ownership type. Moreover, similar to Perepelkin and Dobson (2010), it was evident that the commercial nature of community pharmacy did not impede pharmacists' practice objectives. In fact, serving the best interest of the patient, regardless of an immediate financial return, was described as best practice. The connection between serving the best interest of the patient, thereby creating patient value, was linked to long-term profitability. The age-old enlightened self-interest theory is not unlike the service-profit chain theory, as pharmacies that serve the best interest of patients ultimately serve their own interests through delayed financial reward. Respondents described how serving the

best interest of the patients created trust, loyalty, and ultimately long-term profitability.

Therefore, it was not surprising when all respondents described customer orientation as a precursor to non-financial and financial performance.

Similar to customer orientation, all respondents described interfuctional coordination as a precursor to non-financial and financial performance. While only half of the respondents described competitor orientation as a possible antecedent to non-financial and financial performance, some respondents confused competitor orientation with competitor mimicking. Indeed, those that are entirely market-led may not achieve optimal organizational performance (Christensen and Bower 1996). Evidence from the thematic analysis would suggest a true market orientation, market-led and market-leading, would enhance both non-financial and financial performance. The pilot study results supported the thematic analysis that suggested MO was related to financial performance. Although MO and non-financial performance relationship was not found to be significant in the pilot study, the thematic analysis supported the link between an organizational effort to understand and serve patients in a manner that is strategically different than competitors and outcomes related to patient safety and health.

Much like MO, respondents' description of EO's proactiveness, innovativeness, risk-taking, and work ethic were largely related to both non-financial and financial performance. However, the competitive aggressiveness and autonomy components yielded some contradictory descriptions. For example, there was an apparent concern from a few respondents that granting too much autonomy to those without adequate aptitude could result in negative patient and financial outcomes. However, the majority of respondents described autonomy as something that created organizational commitment and strengthened all organizational outcomes. Although many agreed that competitive aggressiveness translated into financial reward, some respondents

were concerned that the best interest of patients could be jeopardized with extreme competition that resulted in stealing market share. Despite these few concerns, the majority of respondents described all EO components as possible antecedents to non-financial and financial performance. Similar to the pilot study results that supported the EO and non-financial performance link, respondents agreed that entrepreneurial activities were applicable in the creation of organizational efficiencies, new offerings, and improving patient health. Moreover, the thematic analysis supported extant literature suggesting EO's importance in pharmacy practice change and the implementation of new service offerings (Doucette and Jambulingam 1999; Doucette et al. 2012). Contrary to the pilot study, the effect of EO on financial performance was largely supported by respondents in the thematic analysis. However, when describing the effects of EO, such as how innovating creates financial value, respondents would allude to the importance of adequate patient knowledge and benefits. Hence, respondents' descriptions of how EO was important in generating financial benefits included key elements of MO such as patient orientation. This was consistent with previous findings that suggested the combining effect of the strategic orientations results in the most optimal organizational performance (Barrett and Weinstein 1998; Atuahene-Gima and Ko 2001; Song and Jing 2017).

The third, and perhaps most noteworthy, the objective of the interviews was to further understand the measures of organizational performance in community pharmacy. The prior list of non-financial performance items was validated by the respondents and new items were added. Namely, reducing harmful events, successfully interventions, prescription filling accuracy, understanding drugs, patient counselling, expanded scope of practice, quality of care, service quality, inventory management, and dispensing efficiency were previously identified and validated non-financial performance items. Medication synchronization, workflow efficiency,

and staffing ratios were newly identified non-financial performance items. Additionally, cost management was reclassified as a measure of efficiency as opposed to a financial performance item. Financial performance items including profits and return on investment were validated throughout discussions with respondents and a number of new financial items were added. Specifically, prescription volume, revenue, cost of goods sold, margins, and earnings were commonly described as relevant pharmacy financial performance items. The thematic analysis results confirmed several important performance indicators and uncovered additional items that would be useful in future evaluations of pharmacy non-financial and financial performance.

There were several limitations with respect to the results of the semi-structured interviews. First, as with all qualitative explorations, the researcher's personal biases may have played a role in data interpretation and analysis. As described in the researcher's background, personal biases exist with respect to the importance of business acumen and entrepreneurship. Despite every attempt to follow qualitative interview best practices, the researcher is not an experienced interviewer and the results should be interpreted with some degree of caution. Finally, the potential of social desirability bias should also be considered. As social desirability bias is the inclination of respondents to answer questions in a way that they perceive to be the most acceptable (SAGE 2004) and the conversational nature of the interviews may have heightened such tendencies.

CHAPTER 5 WESTERN CANADIAN STUDY

5.1 Hypotheses

5.1.1 Hypothesis One

As previously described, a sustainable competitive advantage can result from effective organizational strategic orientations (Hult, Hurley, and Knight 2004). Organizations with a high degree of market knowledge and entrepreneurial spirit have been shown to outperform competitor organizations (Barrett and Weinstein 1998; Atuahene-Gima and Ko 2001; Song and Jing 2017). Moreover, the connection between MO and EO was established in the pilot study of Saskatchewan community pharmacies and in interviews with Canadian community pharmacy subject-matter experts. In the pilot study, MO and EO were highly correlated constructs, leading to the conclusion that MO and EO are complementary strategic orientations. Furthermore, interview respondents regularly discussed both market knowledge and entrepreneurial activities as organizational success factors. These findings, in combination with the prior review of the literature, suggest market and entrepreneurial-oriented organizational strategies are interrelated and relevant in the Canadian community pharmacy domain. Given the extant literature as well as the pilot study and interview data, the first hypothesis was developed.

***Hypothesis 1:** Market and entrepreneurial orientation are positively correlated*

5.1.2 Hypothesis Two

The MO and financial performance relationship was largely supported in both the pilot study and the interview data. In the pilot study structural equation model and the regression models, MO's effect on financial performance was shown to be positive and statistically significant. Similarly, the majority of interview respondents discussed the importance of market-

oriented behaviours, such as understanding patients, as important to financial performance. These findings complement the large body of literature that submits the link between MO and financial performance (Barrett and Weinstein 1998; Slater and Narver 2000; Hult, Hurley, and Knight 2004; Baker and Sinkula 2009; Laukkanen, et al. 2013; Veidal and Korneliussen 2013; Buli 2017; Micheels and Boecker 2017; Nasir, Mamun, and Breen 2017). In addition to the empirical evidence linking MO to superior organizational performance, the combined market-lead and market-leading activities, that is to say, market-oriented behaviours, is intuitively linked to organizational performance. In community pharmacy, understanding patients' needs, creating services tailored to those needs that differ from competing pharmacies are likely to lead to long-term financial reward. Therefore, based on extant literature as well as the findings from the pilot study and interview data, the second hypothesis was developed.

***Hypothesis 2:** Market orientation has a direct positive influence on a pharmacy's financial performance*

5.1.3 Hypothesis Three

Non-financial performance has been shown to be superior among market-oriented organizations (Raju, et al. 2000; Wood, Bhuian, and Kiecker 2000; Atuahene-Gima and Ko 2001; Vitale, Giglierano, and Miles 2003; Hult, Hurley and Knight 2004; Lonial, et al. 2008; Laukkanen, et al. 2013; Veidal and Korneliussen 2013; Micheels and Boecker 2017). In the most applicable exploration of MO and non-financial performance, it was found that market-oriented hospitals outperformed less market-oriented hospitals (Wood, Bhuan, and Kiecker 2000). Although hospital performance was comprised of some financial metrics, it included important patient health outcomes such as quality of care. It is logical to assume that having a deep understanding of patients and an organizational commitment to serving patients' best

interests would lead to increased quality of care and positive health outcomes. In a variety of ways, all interview respondents described how they strived to understand and best serve their patients because it improved patient health. While the support for MO's effect on non-financial performance was not entirely supported in the pilot study, the interview respondents overwhelmingly suggested MO was an antecedent to non-financial performance. Given the large body of research supporting MO's effect on a multitude of performance measures and the interview data, the third hypothesis was developed.

***Hypothesis 3:** Market orientation has a direct positive influence on a pharmacy's non-financial performance*

5.1.4 Hypothesis Four and Five

According to Kumar, Scheer, and Kotler (2000), market-oriented organizations create both continuous and discontinuous innovations. Continuous innovations are the result of fulfilling customer expressed needs whereas discontinuous innovations are the consequence of fulfilling the latent needs of customers (Kumar, Scheer, and Kotler 2000). As such, the organizational exercise of innovating, continuous or discontinuous, aligns with MO. In a meta-analysis of strategic orientation literature, MO was shown to have an effect on organizational innovativeness (Grinstein 2008). Similarly, organizational innovativeness has been empirically shown to be a consequence of MO (Hult, Hurley, and Knight 2004). Hult, Hurley, and Knight (2004) found MO and organizational innovativeness to be positive and statistically significant while controlling for market conditions, demonstrating the relationship's widespread importance. In a recent study, Micheels and Boecker (2017) found MO was an antecedent to marketing innovations. The relationship between MO and innovating is logical, as organizations that understand their customers' expressed and latent needs and have a desire to fulfill such needs

often do so through innovating. Applying these findings and theoretical arguments to community pharmacy, market-oriented pharmacies are likely to create new products and service innovations as well as implement expanded service innovations. Consequently, the fourth and fifth hypotheses were developed.

***Hypothesis 4:** Market orientation has a direct positive influence on a pharmacy's business innovations*

***Hypothesis 5:** Market orientation has a direct positive influence on a pharmacy's expanded pharmacy service innovations*

5.1.5 Hypothesis Six and Seven

Slater and Narver's (2000) results, as well as the pilot study findings, did not support the direct link between EO and financial performance. Alternatively, in several studies, EO's effect on financial performance has been shown to be mediated by an innovation variable (Hult, Hurley and Knight 2004; Baker and Sinkula 2009; Veidal and Korneliussen 2013; Nasir, Mamun, and Breen 2017). Veidal and Korneliussen (2013) found that EO's influence on organizational performance was mediated by organizational innovativeness and later replicated by Hult, Hurley, and Knight (2004). Comparably, Baker and Sinkula (2009) and Nasir, Mamun, and Breen (2017) found that EO's effect on financial performance was mediated by innovative success. Empirical evidence suggests EO's effect on financial performance is likely mediated by some innovation variable. As theoretically described by Lee, Lee, and Pennings (2001), EO is an organization-level commitment to entrepreneurship. Therefore, it is posited that the innovations that stem from an entrepreneurial commitment, as opposed to the commitment itself, generate financial reward. This assumption was the basis for the formulation of the sixth hypothesis.

Hypothesis 6: Business innovations mediate the entrepreneurial orientation and financial performance relationship

As outlined above, EO's effect on organizational performance tended to be mediated by an innovation variable (Hult, Hurley, and Knight 2004; Baker and Sinkula 2009; Veidal and Korneliussen 2013; Nasir, Mamun, and Breen 2017). Doucette and Jambulingam (1999) further support the idea that EO leads to innovative decisions. Specifically, it was found that pharmacies with high EO were more likely to implement new pharmacy services. Similarly, Doucette et al. (2012) found that the various EO components were associated with pharmacy practice change. As pharmacy practice change has allowed Canadian pharmacies to expand the scope of practice, it is posited that an organizational commitment to entrepreneurship will lead to greater implementation of expanded services and accompanying innovations, thus the seventh hypothesis was developed.

Hypothesis 7: Expanded service innovations mediate the entrepreneurial orientation and non-financial performance relationship

5.1.6 Hypothesis Eight

Supported by both the pilot study and semi-structured interview data, it is a logical proposition that serving the best interest of patients and their health creates long-term financial value. Indeed, a healthcare professional's ability to create favourable patient outcomes creates satisfaction and trust. Therefore, applying the service-profit chain theory to community pharmacy, satisfied and loyal patients should translate into financial reward via long-term patient value. With evidence from the pilot study and semi-structured interviews as well as the application of the service-profit chain theory, the final hypothesis suggests a link between non-financial and financial performance.

***Hypothesis 8:** Non-financial performance has a direct positive influence on a pharmacy's financial performance*

5.2 Methodology

5.2.1 Ethics Approval

In advance of the western Canadian study, a research ethics application was submitted to the University of Saskatchewan's Behavioural Research Ethics Board. On January 12, 2018, the project was determined to be exempt (BEH 17-439) from the research ethics process (Appendix 12).

5.2.2 Study Design and Scope

The study design was a web-based survey. Similar to the pilot study, the Saskatchewan College of Pharmacy Professionals provided their e-mail database of pharmacy managers. Additionally, the Saskatchewan College of Pharmacy Professionals sent a request to all other provincial regulatory bodies that encouraged them to provide similar e-mail databases. The College of Pharmacists of Manitoba and the New Brunswick College of Pharmacists provided their e-mail database of pharmacy managers. The College of Pharmacists of British Columbia indicated that contact information for all British Columbia pharmacies could be accessed via their website. Many other provincial regulatory bodies subsequently sent the researchers similar responses. Although most information could be accessed through such websites, e-mail addresses were not available.

Securing only three provincial databases limited the e-mail distribution of the questionnaire cover letter and link to Saskatchewan, Manitoba, and New Brunswick. Therefore, in order to have a more expansive scope, it was determined that selective provinces would receive the questionnaire cover letter and link via direct mail. As discussed, British Columbia

has legislated, implemented, and provided public payment for a limited number of expanded pharmacy services, Alberta has legislated and implemented the most comprehensive expanded pharmacy services as well as corresponding public payment, Saskatchewan has legislated, implemented, and provided public payment for a considerable number of expanded pharmacy services, and Manitoba has legislated and implemented most expanded pharmacy services but has limited publicly funded remuneration for such services (Canadian Pharmacists Association 2016). These provinces represent four distinct expanded pharmacy service business models including limited services/limited public payment (British Columbia), comprehensive services/comprehensive public payment (Alberta), considerable services/considerable public payment (Saskatchewan), and considerable services/limited public payment (Manitoba). Therefore, a western Canadian study was theoretically justified, as these provinces represent the four distinct expanded pharmacy service business models in Canada.

5.2.3 Questionnaire Development

The western Canadian questionnaire's estimated completion time was roughly 15 minutes. The questionnaire was comprised of seven sections (Appendix 13). The first section asked respondents questions about their pharmacy's position in the industry, measuring MO. The second section asked respondents questions about their pharmacy's organizational practices, measuring EO. The third and fourth section asked respondents questions about their pharmacy's performance relative to competitors. Section three focused on non-financial performance and section four focused on financial performance. The fifth section asked respondents questions related to organizational innovations. This sixth section was provincially-tailored and asked respondents to indicate their pharmacy's uptake of provincially-approved expanded pharmacy services. The seventh section asked respondents a series of demographic questions. Due to the

provincially-tailored questions in section six, four online questionnaires were created and activated.

5.2.3.1 Market orientation instrument

With a few minor changes, the 12-item Narver and Slater (1990) MO instrument used in the pilot study was used in the western Canadian study. Specifically, the word *business* was changed to *organization* or *organizational* in order to better reflect the healthcare profession. Additionally, items four and five were changed. For simplicity, item four was changed from *we measure patient satisfaction systematically and frequently* to *we measure patient satisfaction frequently*. Item five was changed from *all business functions share information concerning competitors' strategies* to *all organizational functions (in your pharmacy/organization, e.g. dispensary, store front, etc.) share information concerning competitors' strategies* to add clarity to the meaning of *organizational functions*. Following survey design best practices, item 12 was reverse coded. In order to minimize respondent misinterpretation, the question was at the end of a question block (item 12) and the negative word was in red and bold font.

5.2.3.2 Entrepreneurial orientation instrument

The 18-item Doucette and Jambulingam (1999) EO instrument used in the pilot study was used in the western Canadian study. Similar to the MO instrument, item 18 was reverse coded. Item 18's negative word was also in red and bold font.

5.2.3.3 Non-financial performance instrument

With a few minor changes, all of the items from the final non-financial instrument in the pilot study were utilized in the western Canadian study. The results of the thematic analysis allowed for the introduction of a number of new non-financial performance items including value-added services, workflow efficiency, and staffing ratios.

5.2.3.4 Financial performance instrument

Based on the results of the pilot study and thematic analysis, profits and return on investment were kept and prescription volume, margins, and earnings were added to the financial performance instrument.

5.2.3.5 Innovation instruments

Various innovation instruments have been shown to have important relationships with strategic orientations and organizational performance (Hult, Hurley, and Knight 2004; Baker and Sinkula 2009; Veidal and Korneliussen 2013; Micheels and Boecker 2017). As such, two innovation instruments were developed as potential mediating variables. The first instrument was theorized based on Micheels and Boecker's (2017) product innovation, but it was broadened to business innovation, as it included items related to product and service innovations. The second instrument focused on expanded pharmacy service innovations.

5.2.4 Questionnaire Distribution and Data Collection

On February 9, 2018, personally addressed e-mails (Appendix 14) containing a link to the questionnaires were sent to all pharmacy managers in the Saskatchewan and Manitoba database. At the same time, all pharmacy managers in British Columbia and Alberta were mailed a personally addressed index card with a link to the questionnaire (Appendix 15). Reminder e-mails and index cards were sent on February 23, 2018 to those that had not yet responded (Appendix 16 and Appendix 17). Data collection ended on April 6, 2018 when the last return-to-sender index card was received (Table 5.1).

Table 5.1 Data Collection Timeline

Date	Activity
February 9, 2018	E-mail and mail postage of questionnaire link
February 23, 2018	Reminder e-mail and mail postage of questionnaire link
April 6, 2018	Data collection concluded

5.2.5 Data Analysis

Similar to the pilot study (3.2.5 Data Analyses), data analyses were accomplished with the use of SPSS ® and Amos. Frequencies, correlation analysis, mean comparisons, and regression analysis were performed using SPSS ®, and Amos was used for CFA, mediation testing, and structural equation modelling.

5.2.6 Structural Equation Modelling

Due to the expectation that this study would yield an adequate sample size ($N > 200$), observed variables with factor loadings below 0.60 were eliminated. The chosen cutoff of 0.60 was between Bagozzi and Yi's (1988) minimum requirement and Kline's (2011) evaluation of "strong" factor loading. CFA and structural equation models were assessed using the same model fit indices and cutoffs ($\chi^2/df \leq 2$, $CFI \geq 0.90$, $RMSEA \leq 0.06$) as described in the pilot study (3.2.6 Structural Equation Modelling).

5.3 Results

5.3.1 Response Rate

On February 9, 2018, the initial e-mail was sent to the primary contact of 389 Manitoba and 332 Saskatchewan and pharmacies. At the same time, the initial mailing of the questionnaire link was sent to the primary contact of 1,293 Alberta and 1,337 British Columbia pharmacies. Prior to the second mailing, 147 usable responses were received. On February 23, 2018, a reminder message was e-mailed and mailed to those that had not yet responded. Following the

reminder message, 112 usable responses were received. At the end of data collection, a total of 259 usable responses were received. Of the 3,351 e-mail and postal messages sent, 82 came back as return-to-sender. Therefore, the study's Manitoba, Saskatchewan, Alberta, British Columbia, and overall response rates were 21.4% (81/378), 29.3% (90/307), 4.3% (54/1,252), 2.6% (34/1,332), and 7.9% (259/3,269), respectively. Although the response rate was somewhat low, it was comparable to a recent national study of Canadian pharmacists (Jorgenson, et al. 2016).

5.3.2 Market Orientation

5.3.2.1 Market orientation frequency

Respondents were asked to answer questions related to their pharmacy's position in the industry (MO). Responses to Q1, Q2, Q3, and Q12 were distributed toward *to a considerable extent/to a great extent* (Table 5.2). Responses to Q4, Q6, Q8, Q10, and Q11 were distributed toward *to a moderate extent/to a considerable extent* (Table 5.2). The remaining items (Q5, Q7, and Q9) were distributed toward *to a small extent/to a moderate extent* (Table 5.2).

Table 5.2 Market Orientation

	To no extent N (%)	To a small extent N (%)	To a moderate extent N (%)	To a considerable extent N (%)	To a great extent N (%)	Responses N (%)
(Q1) Our business objectives are driven primarily by patient satisfaction	0 (0)	8 (3.1)	21 (8.1)	79 (30.5)	150 (57.9)	258 (99.6)
(Q2) Our strategy for competitive advantage is based on our understanding of patients' needs	1 (0.4)	3 (1.2)	28 (10.8)	82 (31.7)	143 (55.2)	257 (99.2)
(Q3) Our business strategies are driven by our beliefs about how we can create greater value for patients	0 (0)	10 (3.9)	27 (10.4)	91 (35.1)	131 (50.6)	259 (100)
(Q4) We measure patient satisfaction frequently	12 (4.6)	53 (20.5)	66 (25.5)	65 (25.1)	58 (22.4)	254 (98.1)
(Q5) All organizational (in your organization, e.g. dispensary, store front, etc.) share information concerning competitors' strategies	33 (12.7)	71 (27.4)	72 (27.8)	51 (19.7)	17 (6.6)	244 (94.2)
(Q6) We rapidly respond to competitive actions that threaten us	17 (6.6)	56 (21.6)	83 (32.0)	64 (24.7)	33 (12.7)	253 (97.7)
(Q7) Top managers regularly discuss competitors' strengths and strategies	23 (8.9)	72 (27.8)	72 (27.8)	53 (20.5)	27 (10.4)	247 (95.4)
(Q8) We target where we have an opportunity for competitive advantage	23 (8.9)	50 (19.3)	89 (34.4)	58 (22.4)	29 (11.2)	249 (96.1)
(Q9) We communicate information about our successful and unsuccessful patient experiences across all organizational functions	28 (10.8)	57 (22.0)	72 (27.8)	49 (18.9)	48 (18.5)	254 (98.1)
(Q10) All organizational functions are integrated	8 (3.1)	26 (10.0)	76 (29.3)	93 (35.9)	45 (17.4)	248 (95.8)

in serving the needs of the target markets						
(Q11) All organizational functions understand how everyone in our business can contribute to creating patient value	3 (1.2)	32 (12.4)	69 (26.6)	88 (34.0)	64 (24.7)	256 (98.8)
(Q12) We share resources with other organizational units	16 (6.2)	30 (11.6)	48 (18.5)	54 (20.8)	72 (27.8)	220 (84.9)

5.3.2.2 Market orientation loading

CFA was conducted in order to test the dimensionality of MO. Following Narver and Slater's (1999) conceptualization of MO, a three-dimensional first-order CFA model was created and tested. In the first version of the 12-item first-order CFA model, Q4 and Q12 loaded poorly ($\beta < 0.60$). Therefore, Q4 and Q12 were eliminated to create the final first-order CFA model (Figure 5.1). Q12's loading issue may have been a result of its negative wording. According to Salkind and Rasmussen (2007) reverse coding can "adversely affect the psychometric properties of scales" (p. 845).

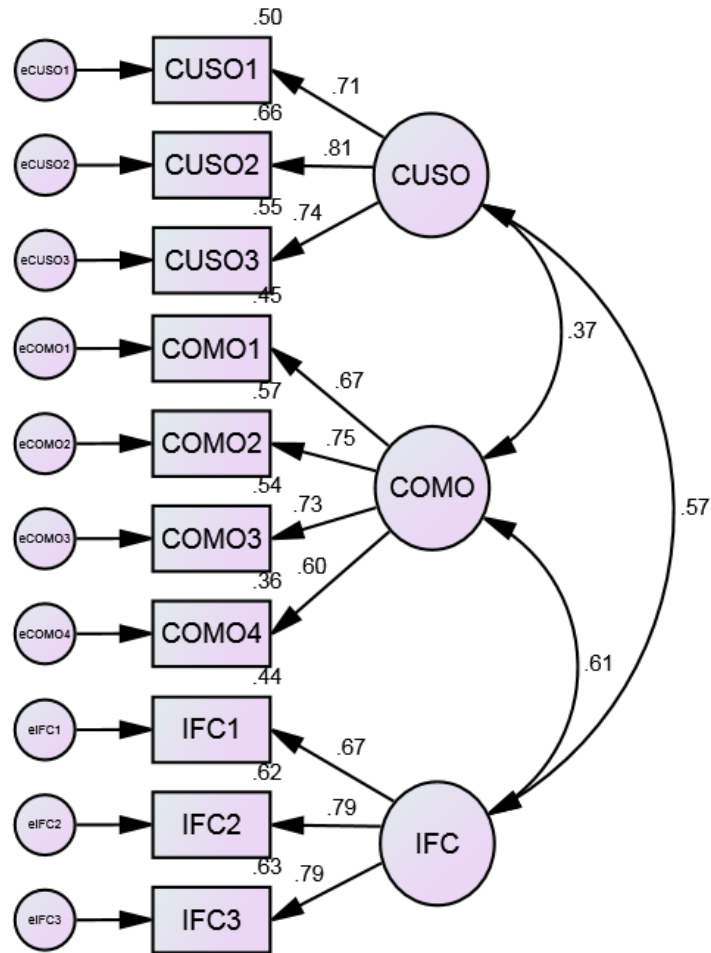


Figure 5.1 MO First-Order CFA Model

The three-dimensional first-order CFA model's standardized regression weights were positive and statistically significant ($p < 0.001$) (Table 5.3).

Table 5.3 First-Order MO Standardized Regression Weights

	Estimate
Q1 \leftarrow CUSO	0.705**
Q2 \leftarrow CUSO	0.812**
Q3 \leftarrow CUSO	0.740**
Q5 \leftarrow COMO	0.667**
Q6 \leftarrow COMO	0.755**
Q7 \leftarrow COMO	0.733**
Q8 \leftarrow COMO	0.600**
Q9 \leftarrow IFC	0.667**
Q10 \leftarrow IFC	0.786**
Q11 \leftarrow IFC	0.793**

** $p < 0.01$, * $p < 0.05$

The three-dimensional first-order CFA model's χ^2/df , CFI, and RMSEA were 1.966, 0.964, and 0.061, respectively (Table 5.4). According to the predetermined cutoffs ($\chi^2/\text{df} \leq 2$, $\text{CFI} \geq 0.90$, $\text{RMSEA} \leq 0.06$), these fit indices demonstrated acceptable model fit.

Table 5.4 First-Order MO Model Fit Indices

Fit Indices	Model
χ^2	62.896
df	32
χ^2/df	1.966
CFI	0.964
RMSEA	0.061

Subsequently, a three-dimensional second-order CFA model was created and tested (Figure 5.2).

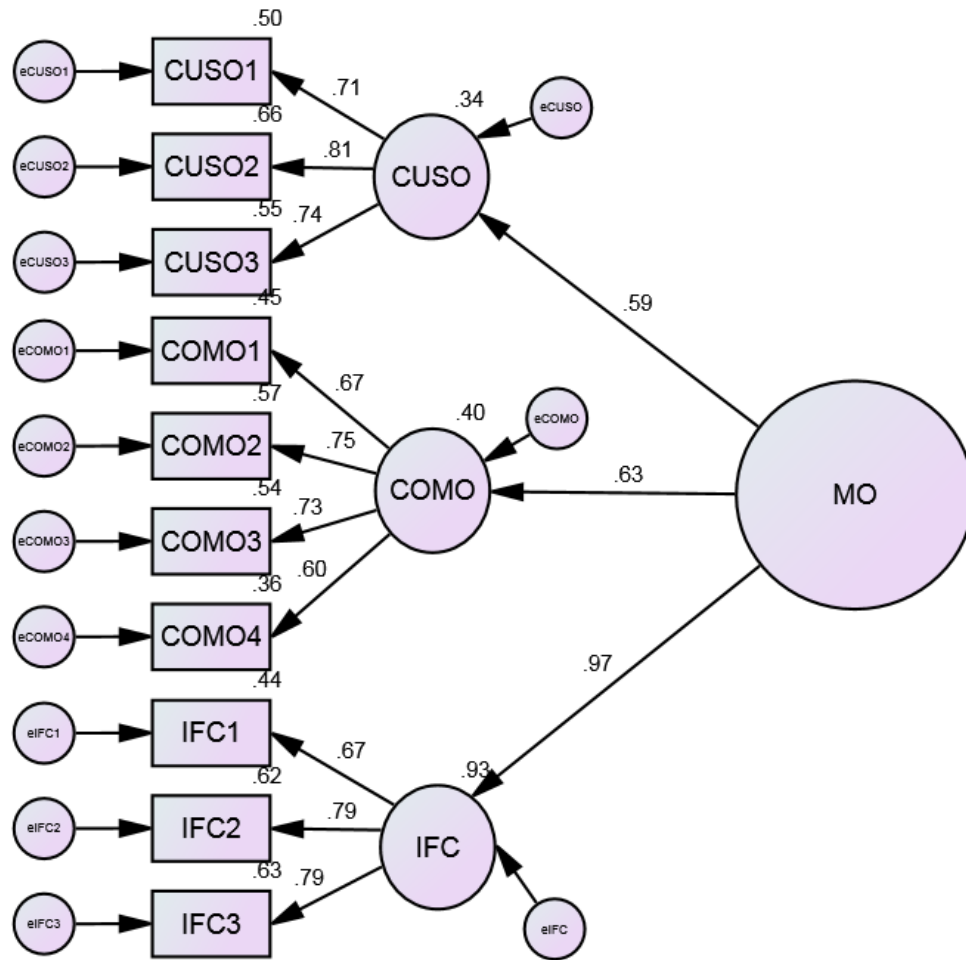


Figure 5.2 MO Second-Order CFA Model

The three-dimensional second-order CFA model's standardized regression weights were positive and statistically significant ($p < 0.001$) (Table 5.5).

Table 5.5 Second-Order MO Standardized Regression Weights

	Estimate
CUSO \leftarrow MO	0.585**
COMO \leftarrow MO	0.629**
IFC \leftarrow MO	0.966**
Q1 \leftarrow CUSO	0.705**
Q2 \leftarrow CUSO	0.812**
Q3 \leftarrow CUSO	0.740**
Q5 \leftarrow COMO	0.667**
Q6 \leftarrow COMO	0.755**
Q7 \leftarrow COMO	0.733**
Q8 \leftarrow COMO	0.600**
Q9 \leftarrow IFC	0.667**
Q10 \leftarrow IFC	0.786**
Q11 \leftarrow IFC	0.793**

** $p < 0.01$, * $p < 0.05$

The three-dimensional second-order CFA model's fit indices were the same as the three-dimensional first-order CFA model's fit indices (Table 5.6), demonstrating acceptable model fit.

Table 5.6 Second-Order MO Model Fit Indices

Fit Indices	Model
χ^2	62.896
df	32
χ^2/df	1.966
CFI	0.964
RMSEA	0.061

5.3.2.3 Market orientation conclusion

Both the three-dimensional first-order CFA model and three-dimensional second-order CFA model showed acceptable model fit indices. Due to the theoretical conceptualization that MO's three components work in unison, the three-dimensional second-order CFA model was utilized in structural equation modelling and an unweighted average of the 10 items was used as a composite index score in correlation analysis and mean comparisons.

5.3.3 Entrepreneurial Orientation

5.3.3.1 Entrepreneurial orientation frequency

Respondents were asked to answer a series of questions related to their pharmacy's organizational practices (EO). Responses to Q13, Q14, Q15, Q17, Q28, Q29, and Q30 were distributed toward *agree/strongly agree* (Table 5.7). Responses to Q16, Q18, Q19, Q21, Q22, Q23, Q24, Q25, and Q26 were distributed toward *neutral/agree* (Table 5.7). The remaining items (Q20 and Q27) were distributed toward *disagree/neutral* (Table 5.7).

Table 5.7 Entrepreneurial Orientation

	Strongly disagree N (%)	Disagree N (%)	Neutral N (%)	Agree N (%)	Strongly agree N (%)	Responses N (%)
(Q13) Our pharmacy takes action in anticipation of future market conditions	4 (1.5)	10 (3.9)	36 (13.9)	136 (52.5)	70 (27)	256 (98.8)
(Q14) We try to shape our business environment to enhance our presence in the market place	2 (0.8)	8 (3.1)	30 (11.6)	141 (54.4)	73 (28.2)	254 (98.1)
(Q15) Because market conditions are changing, we continually seek out new opportunities	2 (0.8)	10 (3.9)	36 (13.9)	120 (46.3)	90 (34.7)	258 (99.6)
(Q16) Our pharmacy is known as an innovator among pharmacies in our area	5 (1.9)	29 (11.2)	72 (27.8)	90 (34.7)	57 (22)	253 (97.7)
(Q17) We promote new and innovative services in our pharmacy	4 (1.5)	16 (6.2)	46 (17.8)	126 (48.6)	66 (25.5)	258 (99.6)
(Q18) Our pharmacy provides leadership in developing new services	6 (2.3)	29 (11.2)	71 (27.4)	96 (37.1)	52 (20.1)	254 (98.1)
(Q19) Taking gambles is part of our strategy for success	19 (7.3)	61 (23.6)	86 (33.2)	77 (29.7)	16 (6.2)	259 (100)
(Q20) We take above average risks in our business	18 (6.9)	88 (34.0)	75 (29)	53 (20.5)	19 (7.3)	253 (97.7)
(Q21) Taking changes is an element of our business strategy	17 (6.6)	61 (23.6)	82 (31.7)	74 (28.6)	17 (6.6)	251 (96.9)
(Q22) New service ideas suggested by employees are acted upon by decision-makers	7 (2.7)	22 (8.5)	49 (18.9)	137 (52.9)	39 (15.1)	254 (98.1)
(Q23) Management approves of independent activity by employees to develop new services	5 (1.9)	18 (6.9)	56 (21.6)	126 (48.6)	44 (17.0)	249 (96.1)
(Q24) Identifying new business opportunities is	6 (2.3)	38 (14.7)	57 (22)	115 (44.4)	39 (15.1)	255 (98.5)

the concern of all employees						
(Q25) We directly challenge our competitors	12 (4.6)	39 (15.1)	89 (34.4)	80 (30.9)	29 (11.2)	249 (96.1)
(Q26) We are responsive to manoeuvres of our rivals	5 (1.9)	31 (12)	91 (35.1)	103 (39.8)	21 (8.1)	251 (96.9)
(Q27) Our actions toward competitors can be termed aggressive	44 (17.0)	114 (44)	74 (28.6)	19 (7.3)	4 (1.5)	255 (98.5)
(Q28) We consider ourselves as having high motivation toward work	0 (0)	4 (1.5)	25 (9.7)	135 (52.1)	90 (34.7)	254 (98.1)
(Q29) Our employees are a group of hard working individuals	0 (0)	0 (0)	8 (3.1)	111 (42.9)	137 (52.9)	256 (98.8)
(Q30) At our pharmacy, we are very ambitious about our work	2 (0.8)	5 (1.9)	17 (6.6)	99 (38.2)	132 (51.0)	255 (98.5)

5.3.3.2 Entrepreneurial orientation loading

CFA was conducted in order to test the dimensionality of EO. Following Doucette and Jambulingam's (1999) conceptualization of EO, a six-dimensional first-order CFA model was created and tested. In the first version of the 18-item first-order CFA model, items Q22, Q23, Q24, Q28, Q29 and Q30 had loading issues and were eliminated in order to create the final four-dimensional first-order CFA model (Figure 5.3). Work ethic's (Q28, Q29, and Q30) loading issues may have been a result of the last item's reverse coding. While Doucette and Jambulingam (1999) experienced acceptable loading, work ethic's component-to-construct loading was also the lowest of all EO components. Autonomy's loading issues may have been related to the interview results. Specifically, the importance of granting autonomy was described as dependent on employee aptitudes and roles.

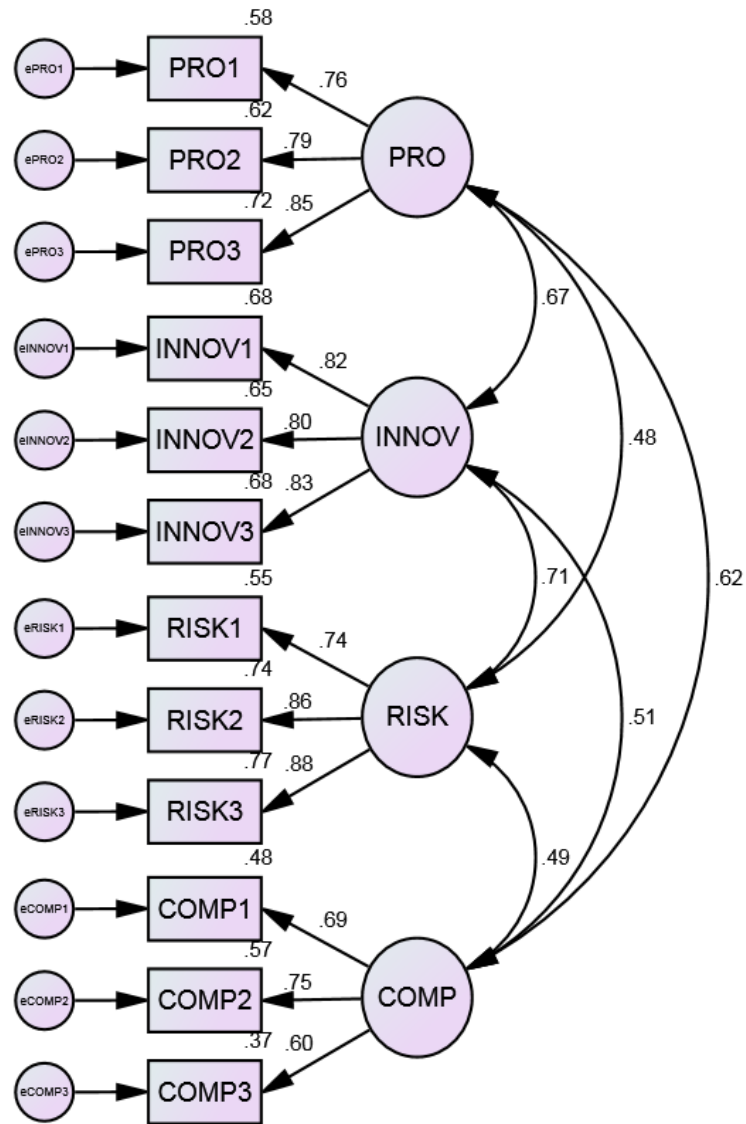


Figure 5.3 EO First-Order CFA Model

The four-dimensional first-order CFA model's standardized regression weights were positive and statistically significant ($p < 0.001$) (Table 5.8).

Table 5.8 First-Order EO Standardized Regression Weights

	Estimate
Q13 \leftarrow PRO	0.763**
Q14 \leftarrow PRO	0.789**
Q15 \leftarrow PRO	0.848**
Q16 \leftarrow INNOV	0.824**
Q17 \leftarrow INNOV	0.804**
Q18 \leftarrow INNOV	0.826**
Q19 \leftarrow RISK	0.740**
Q20 \leftarrow RISK	0.861**
Q21 \leftarrow RISK	0.876**
Q25 \leftarrow COMP	0.695**
Q26 \leftarrow COMP	0.754**
Q27 \leftarrow COMP	0.605**

** $p < 0.01$, * $p < 0.05$

The four-dimensional first-order CFA model's χ^2/df , CFI, and RMSEA were 1.686, 0.978, and 0.052, respectively (Table 5.9). According to the predetermined cutoffs ($\chi^2/\text{df} \leq 2$, $\text{CFI} \geq 0.90$, $\text{RMSEA} \leq 0.06$), these fit indices demonstrated acceptable model fit.

Table 5.9 First-Order EO Model Fit Indices

Fit Indices	Model
χ^2	80.943
df	48
χ^2/df	1.686
CFI	0.978
RMSEA	0.052

Next, a four-dimensional second-order CFA model was created and tested (Figure 5.4).

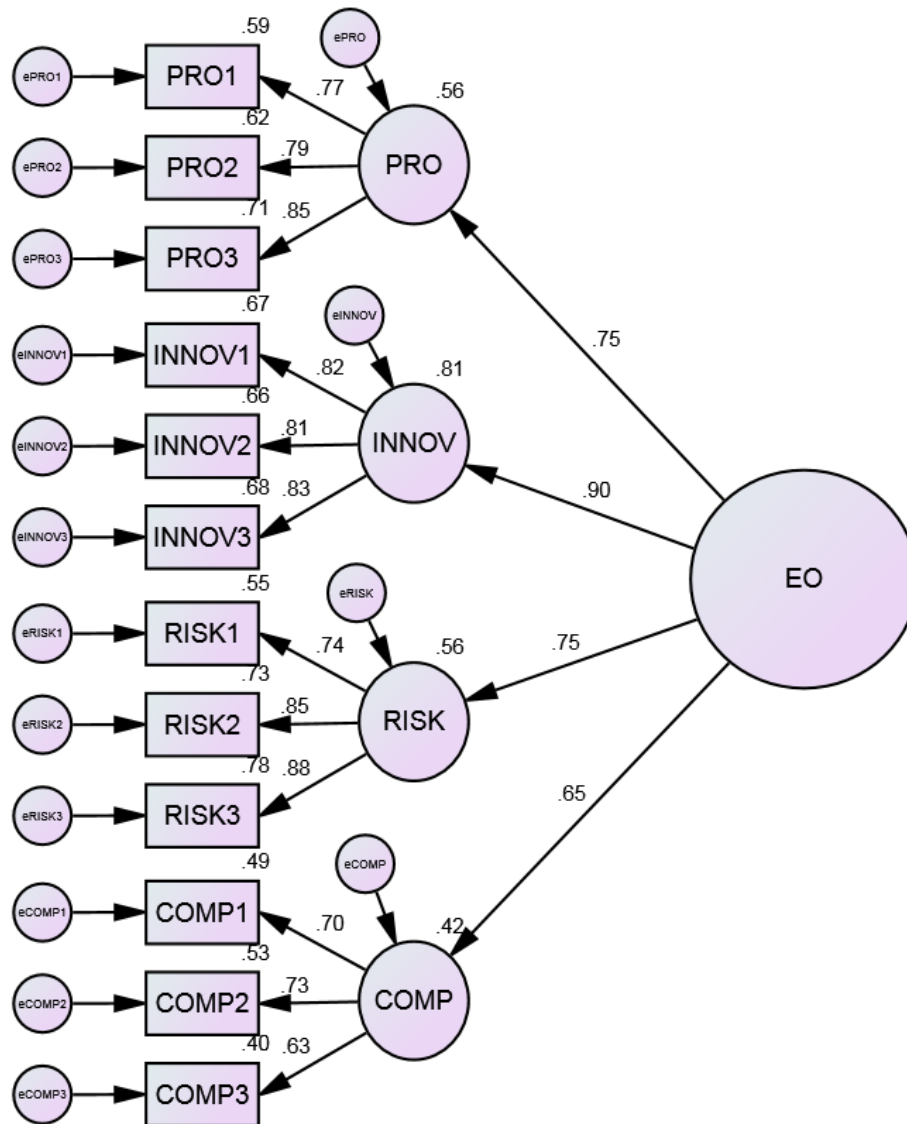


Figure 5.4 EO Second-Order CFA Model

The four-dimensional second-order CFA model's standardized regression weights were positive and statistically significant ($p < 0.001$) (Table 5.10).

Table 5.10 Second-Order EO Standardized Regression Weights

	Estimate
PRO \leftarrow EO	0.747**
INNOV \leftarrow EO	0.900**
RISK \leftarrow EO	0.750**
COMP \leftarrow EO	0.647**
Q13 \leftarrow PRO	0.765**
Q14 \leftarrow PRO	0.790**
Q15 \leftarrow PRO	0.845**
Q16 \leftarrow INNOV	0.817**
Q17 \leftarrow INNOV	0.813**
Q18 \leftarrow INNOV	0.825**
Q19 \leftarrow RISK	0.743**
Q20 \leftarrow RISK	0.852**
Q21 \leftarrow RISK	0.884**
Q25 \leftarrow COMP	0.699**
Q26 \leftarrow COMP	0.730**
Q27 \leftarrow COMP	0.630**

** $p < 0.01$, * $p < 0.05$

The four-dimensional second-order CFA model's χ^2/df , CFI, and RMSEA were 1.987, 0.967, and 0.062, respectively (Table 5.11). According to the predetermined cutoffs ($\chi^2/\text{df} \leq 2$, $\text{CFI} \geq 0.90$, $\text{RMSEA} \leq 0.06$), these fit indices demonstrated acceptable model fit.

Table 5.11 Second-Order EO Model Fit Indices

Fit Indices	Model
χ^2	99.374
df	50
χ^2/df	1.987
CFI	0.967
RMSEA	0.062

5.3.3.3 Entrepreneurial orientation conclusion

Both the four-dimensional first-order CFA model and four-dimensional second-order CFA model showed acceptable model fit indices. Due to the theoretical conceptualization that EO's components work in unison, the four-dimensional second-order CFA model was used in

structural equation modelling and an unweighted average of the 12 items was used as a composite index score in correlation analysis and mean comparisons.

5.3.4 Performance

5.3.4.1 Performance frequency

Respondents were asked to answer a series of questions related to their pharmacy's performance relative to competitors (non-financial and financial performance). Responses to Q31, Q32, Q33, Q34, Q35, Q36, Q37, Q38, Q39, Q40, Q41, Q42, and Q43 were distributed toward *good/very good* (Table 5.12). Responses to Q44, Q45, Q46, Q47, and Q48 were distributed toward *average/good* (Table 5.12).

Table 5.12 Performance

	Very poor N (%)	Poor N (%)	Average N (%)	Good N (%)	Very good N (%)	Responses N (%)
(Q31) Ability to reduce medication-related harmful events	0 (0)	0 (0)	15 (5.8)	74 (28.6)	169 (65.3)	258 (99.6)
(Q32) Successful therapeutic interventions	0 (0)	1 (0.4)	23 (8.9)	86 (33.2)	147 (56.8)	257 (99.2)
(Q33) Prescription filling accuracy	0 (0)	0 (0)	6 (2.3)	38 (14.7)	213 (82.2)	257 (99.2)
(Q34) Understanding new drugs and therapies	0 (0)	3 (1.2)	41 (15.8)	116 (44.8)	98 (37.8)	258 (99.6)
(Q35) Patient counselling	0 (0)	1 (0.4)	13 (5)	87 (33.6)	154 (59.5)	255 (98.5)
(Q36) Overall quality of care	0 (0)	0 (0)	5 (1.9)	65 (25.1)	186 (71.8)	256 (98.8)
(Q37) Service quality	0 (0)	0 (0)	6 (2.3)	54 (20.8)	197 (76.1)	257 (99.2)
(Q38) Delivery of expanded services	1 (0.4)	13 (5)	50 (19.3)	93 (35.9)	97 (37.5)	254 (98.1)
(Q39) Value-added services (e.g. medication synchronization)	0 (0)	17 (6.6)	58 (22.4)	97 (37.5)	80 (30.9)	252 (97.3)
(Q40) Management of supplies and inventory	2 (0.8)	5 (1.9)	29 (11.2)	83 (32.0)	136 (52.5)	255 (98.5)
(Q41) Workflow efficiency	1 (0.4)	6 (2.3)	38 (14.7)	96 (37.1)	116 (44.8)	257 (99.2)
(Q42) Prescription dispensary efficiency	1 (0.4)	6 (2.3)	22 (8.5)	82 (31.7)	145 (56)	256 (98.8)
(Q43) Staffing ratios	3 (1.2)	12 (4.6)	49 (18.9)	99 (38.2)	90 (34.7)	253 (97.7)
(Q44) Prescription volume	5 (1.9)	27 (10.4)	77 (29.7)	90 (34.7)	55 (21.2)	254 (98.1)
(Q45) Revenues	5 (1.9)	18 (6.9)	86 (33.2)	106 (40.9)	30 (11.6)	245 (94.6)
(Q46) Margins	7 (2.7)	17 (6.6)	102 (39.4)	96 (37.1)	20 (7.7)	242 (93.4)
(Q47) Earnings	5 (1.9)	19 (7.3)	101 (39)	95 (36.7)	25 (9.7)	245 (94.6)
(Q48) Return on investment	5 (1.9)	24 (9.3)	91 (35.1)	90 (34.7)	26 (10)	236 (91.1)

5.3.4.2 Performance loading

Following Churchill's (1979) procedural recommendations and based on the findings from the semi-structured interviews, a performance CFA model was created and tested (Figure 5.5).

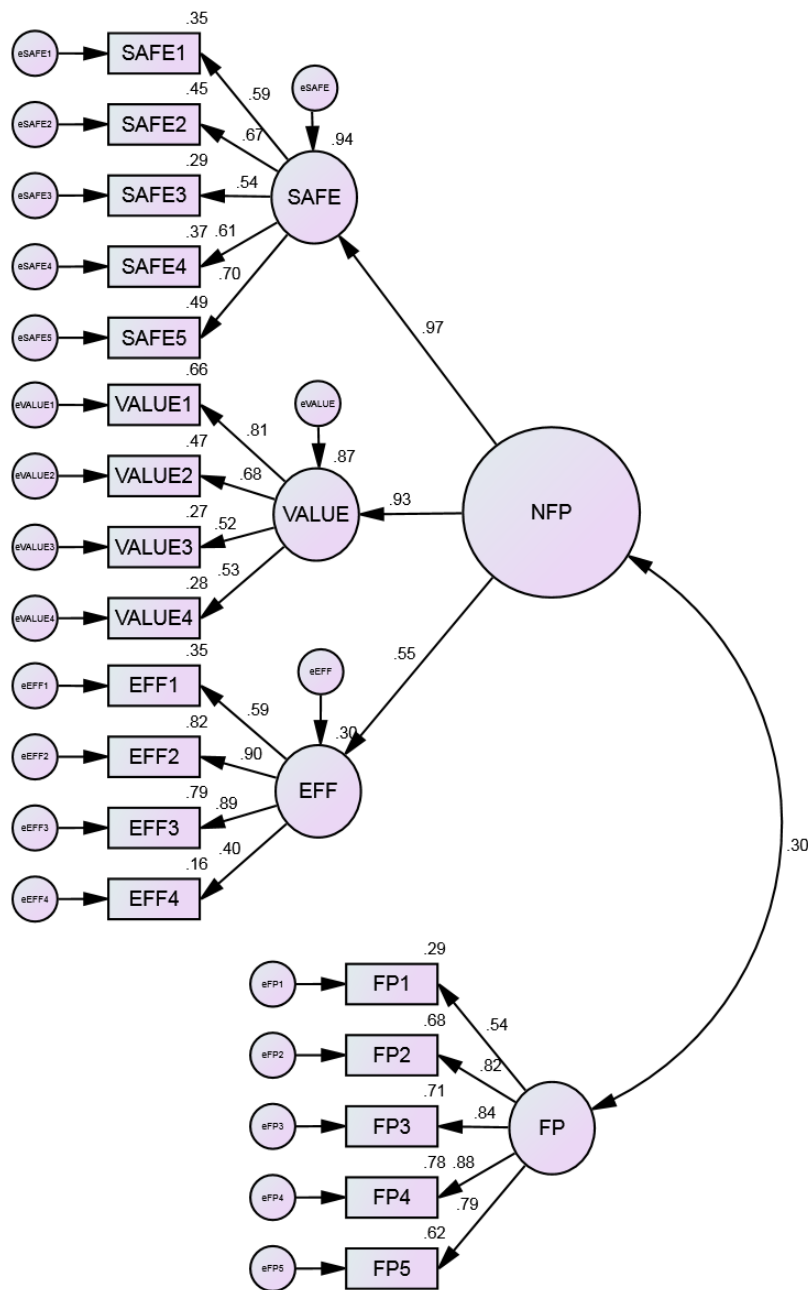


Figure 5.5 Performance CFA Model

The hypothesized model produced poor model fit indices ($\chi^2/df = 2.762$, CFI = 0.887, RMSEA = 0.083). Next, the non-financial section of the questionnaire was examined for face validity. Of the non-financial items, three items directly related to patient outcomes. These items included successfully therapeutic interventions (Q32), patient counselling (Q35), and overall quality of care (Q36). These items were grouped together to form the non-financial performance construct and renamed improved health outcomes (IHO). The interrelated financial performance (FP) and IHO CFA model was created and tested.

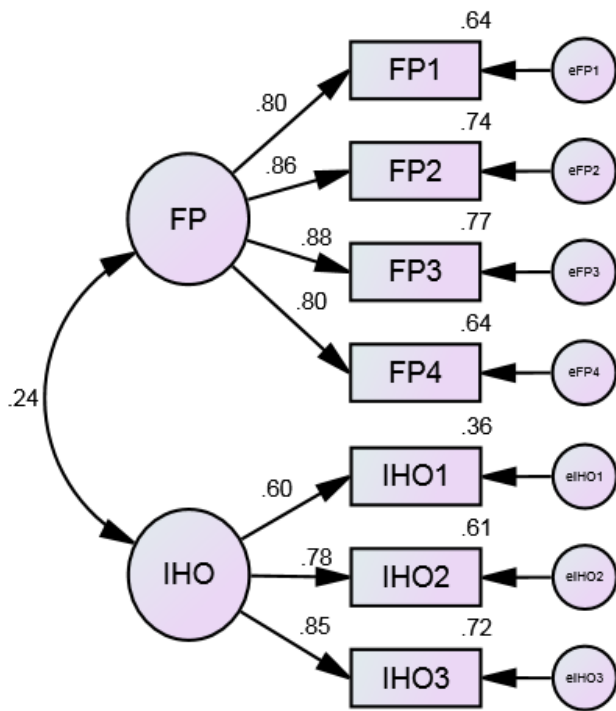


Figure 5.6 Final Performance CFA Model

The two interrelated constructs' standardized regression weights were positive and statistically significant ($p < 0.001$) (Table 5.13).

Table 5.13 Performance Standardized Regression Weights

	Estimate
Q45 \leftarrow FP	0.803**
Q46 \leftarrow FP	0.861**
Q47 \leftarrow FP	0.876**
Q48 \leftarrow FP	0.802**
Q32 \leftarrow IHO	0.600**
Q35 \leftarrow IHO	0.780**
Q36 \leftarrow IHO	0.850**

** $p < 0.01$, * $p < 0.05$

The performance CFA model's χ^2/df , CFI, and RMSEA were 1.265, 0.996, and 0.032, respectively (Table 5.14). According to the predetermined cutoffs ($\chi^2/\text{df} \leq 2$, $\text{CFI} \geq 0.90$, $\text{RMSEA} \leq 0.06$), these fit indices demonstrated acceptable model fit.

Table 5.14 Performance Model Fit Indices

Fit Indices	Model
χ^2	16.446
Df	13
χ^2/df	1.265
CFI	0.996
RMSEA	0.032

5.3.4.3 Performance conclusion

Due to the acceptable model fit indices, the two interrelated constructs, IHO and FP, were used in structural equation modelling. The unweighted average of IHO's three items and FP's four items were used as composite index scores in correlation analysis and mean comparisons.

5.3.5 Innovation

5.3.5.1 Business innovation

Business innovation (BSINN) was assessed via Q55 and Q56. The two item construct was used in subsequent structural equation modelling and the unweighted average of the two items was used as a composite index score in correlation analysis and mean comparisons.

5.3.5.2 Expanded service innovation

Expanded service innovation (EXPND) was assessed via Q49 and Q50. The two item construct was used in structural equation modelling and the unweighted average of the two items was used as a composite index score in correlation analyses.

5.3.6 Non-Response Bias

Similar to the pilot study, non-response bias was tested by comparing major constructs among early and late responders (Armstrong and Overton 1977). Responses were deemed early/late if they were completed before/after the reminder message on February 23, 2018. Independent sample t-tests were conducted to compare the group of early responders and late responders, based on their group mean scores of MO, EO, FP, and IHO. Listwise deletion was used to treat missing data. There were no statistically significant differences among the groups' MO ($t(183) = -0.405, p = 0.686$), EO ($t(183) = 0.300, p = 0.764$), FP ($t(183) = 1.166, p = 0.245$), and IHO ($t(183) = -0.386, p = 0.700$) scores. No statistically significant differences were found, providing little evidence to suggest a non-response bias (Armstrong and Overton 1977).

5.3.7 Control Variables

5.3.7.1 Province

Of the 259 responses, 34 were from British Columbia (13.1%), 54 from Alberta (20.8%), 81 from Manitoba (31.3%), and 90 from Saskatchewan (34.7%).

5.3.7.2 Respondent's role

Respondents were asked to indicate their role within the organization. Of the 259 respondents, 15 identified as owners (5.8%), 85 as owners/managers (32.8%), 62 as managers (23.9%), six as staff pharmacists (2.3%), and 91 did not disclose their position (35.1%).

Although a large number of respondents did not disclose their position, the questionnaire was sent directly to the pharmacy manager.

Table 5.15 Respondent's Role

Role	Responses N (%)
Owner	15 (5.8)
Owner/Manager	85 (32.8)
Manager	62 (23.9)
Staff Pharmacist	6 (2.3)
Missing data	91 (35.1)
Total	259 (100)

5.3.7.3 Respondent's education

Respondents were asked to indicate their educational background. Based on the varying responses, educational backgrounds were classified into three categories including Bachelor of Science in Pharmacy (entry-to-practice degree), Bachelor of Science in Pharmacy and another degree, or Doctor of Pharmacy (post-graduate degree) (Table 5.16).

Table 5.16 Respondent's Education

Education	Responses N (%)
Bachelor of Science in Pharmacy	193 (74.5)
Bachelor of Science in Pharmacy and another degree	41 (15.8)
Doctor of Pharmacy	5 (1.9)
Missing data	20 (7.7)
Total	259 (100)

5.3.7.4 Pharmacy type

Respondents were asked to specify the type of their pharmacy. Of the 259, 140 pharmacies were independent (54.1%), 40 were franchises (15.4%), 46 were chains (17.8%), and 30 were grocery or mass merchandiser (11.6%).

Table 5.17 Pharmacy Type

Role	Responses N (%)
Independent	140 (54.1)
Franchise	40 (15.4)
Chain	46 (17.8)
Grocery/mass merchandiser	30 (11.6)
Missing data	3 (1.2)
Total	259 (100)

5.3.7.5 Pharmacy age

Respondents were asked to specify the age of the pharmacy. For presentation purposes, responses were categorized into several age ranges (Table 5.18).

Table 5.18 Pharmacy Age

Age	Responses N (%)
< 5 years	41 (15.8)
5 < years < 10	29 (11.2)
10 < years < 15	17 (6.6)
15 < years < 20	34 (13.1)
20 < years < 25	33 (12.7)
> 25	91 (35.1)
Missing data	14 (5.4)
Total	259 (100)

5.3.7.6 Pharmacy location

Based on the respondent's Internet Protocol (IP) address, pharmacies were from categorized as being pharmacies in cities or towns. Of the 259, 146 (56.4%) were located in cities and 106 (40.9%) were located in towns, and seven locations were not obtained.

5.3.7.7 Monthly prescriptions filled

In order to measure size, respondents were asked to indicate the number of monthly prescriptions filled by their pharmacy. For presentation purposes, responses were categorized into several prescription volume ranges (Table 5.19).

Table 5.19 Monthly Prescriptions Filled

Prescriptions	Responses N (%)
0-1,999	52 (20.1)
2000-3,999	92 (35.5)
4,000-5,999	39 (15.1)
6,000-7,999	23 (8.9)
8,000-9,999	15 (5.8)
> 10,000	19 (7.3)
Missing data	19 (7.3)
Total	259 (100)

5.3.7.8 Number of pharmacists

In order to measure pharmacy size, respondents were asked to indicate the number of full-time pharmacists on staff. For presentation purposes, responses that indicated five or more full-time pharmacists were collapsed into one category (Table 5.20).

Table 5.20 Full-Time Pharmacists

Pharmacists	Responses N (%)
1	58 (22.4)
2	84 (32.4)
3	54 (20.8)
4	27 (10.4)
≥ 5	32 (12.4)
Missing data	4 (1.5)
Total	259 (100)

5.3.7.9 Number of pharmacy technicians

In order to measure size, respondents were asked to indicate the number of full-time pharmacy technicians on staff. For presentation purposes, responses that indicated five or more full-time technicians were collapsed into one category (Table 5.21).

Table 5.21 Full-Time Technicians

Technicians	Responses N (%)
0	60 (23.2)
1	78 (30.1)
2	49 (18.9)
3	23 (8.9)
4	12 (4.6)
≥ 5	31 (12.0)
Missing data	6 (2.3)
Total	259 (100)

5.3.7.10 Implementation of expanded pharmacy services

Respondents were asked to indicate all of the provincially-approved expanded services that their pharmacy had implemented. As this question differed based on the province, responses were divided by the number of provincially-approved expanded services in order to give an implementation of expanded services percentage.

Table 5.22 Implementation of Expanded Services Percent

Percentage	Responses N (%)
0	1 (0.4)
> 25	8 (3.1)
25 < % < 50	30 (11.6)
50 < % < 75	78 (30.1)
75 < % < 100	130 (50.2)
100	12 (4.6)
Total	259 (100)

5.3.8 Correlation Analysis

A bivariate correlation analysis was performed using the unweighted mean scores of MO, EO, FP, IHO, BSINN, and EXPND as well as all the raw data from the numeric control variables including the implementation of expanded services percent (IESP), pharmacy age (AGE), full-time pharmacists (FTP), full-time technicians (FTT), and monthly prescriptions filled (MP). Similar to other analyses, listwise deletion was used to treat missing data.

Table 5.23 Correlation Matrix

	MO	EO	FP	IHO	BSINN	EXPND	IESP	AGE	FTP	FTT	MP
MO	1										
EO	0.517** (0.40, 0.62)	1									
FP	0.110 (-0.04, 0.27)	0.132 (-0.02, 0.28)	1								
IHO	0.303** (0.19, 0.43)	0.189* (0.03, 0.34)	0.257** (0.12, 0.40)	1							
BSINN	0.284** (0.14, 0.42)	0.361** (0.22, 0.49)	0.053 (-0.11, 0.22)	0.121 (-0.07, 0.30)	1						
EXPND	0.287** (0.16, 0.42)	0.279** (0.13, 0.43)	0.156* (0.01, 0.30)	0.307** (0.16, 0.45)	0.416** (0.27, 0.56)	1					
IESP	0.062 (-0.11, 0.22)	0.173* (0.01, 0.32)	0.031 (-0.145, 0.20)	0.152* (0.01, 0.30)	0.274** (0.13, 0.40)	0.507** (0.39, 0.62)	1				
AGE	-0.141 (-0.28, -0.01)	-0.081 (-0.21, 0.06)	0.070 (-0.08, 0.21)	-0.060 (-0.20, 0.08)	-0.034 (-0.16, 0.11)	-0.118 (-0.27, 0.05)	-0.093 (-0.24, 0.08)	1			
FTP	-0.054 (-0.17, 0.13)	0.052 (-0.07, 0.30)	0.154* (-0.01, 0.27)	-0.017 (-0.18, 0.09)	-0.039 (-0.20, 0.24)	-0.043 (-0.21, 0.23)	-0.109 (-0.32, 0.23)	0.041 (-0.07, 0.29)	1		
FTT	0.097 (-0.01, 0.21)	0.118 (-0.03, 0.25)	0.180* (0.03, 0.33)	0.022 (-0.17, 0.19)	-0.022 (-0.12, 0.09)	0.113 (-0.03, 0.25)	0.001 (-0.14, 0.13)	0.034 (-0.07, 0.15)	0.377** (0.14, 0.82)	1	
MP	0.039 (-0.03, 0.17)	0.123 (0.04, 0.33)	0.028 (-0.08, 0.28)	-0.091 (-0.20, 0.07)	0.054 (-0.02, 0.21)	0.023 (-0.08, 0.16)	0.013 (-0.11, 0.22)	0.092 (-0.02, 0.19)	0.308** (0.13, 0.73)	0.531** (0.24, 0.74)	1

** $p < 0.01$, * $p < 0.05$

Many of the major constructs (MO, EO, FP, and IHO) and innovation constructs (BSINN and EXPND) had statistically significant correlations with one another. Although many of these constructs were correlated, none of the 95% confidence intervals contained the number one, suggesting acceptable discriminant validity (Kline 2011).

The correlation coefficient between EXPND and IESP was 0.507 with a 95% confidence interval of $0.392 \leq r \leq 0.619$. The statistically significant correlation and face validity suggest EXPND (expanded service innovations) and IESP (implementation of expanded services percent) measured similar phenomena. Due to the similarity between the two constructs and given the study's innovation focus, EXPND was chosen over IESP for inclusion in subsequent structural equation modelling.

Many of the numeric control variables (AGE, FTP, FTT, and MP) produced few statistically significant correlations with the major constructs and innovation constructs. Specifically, only FTP and FTT were significantly correlated with FP. In similar studies, pharmacy size and age had influenced major constructs and performance (Doucette and Jambulinga 1999; Iyer and Doucette 2003). Specifically, Doucette and Jambulingham (1999) found that smaller pharmacies and pharmacies with more resources were more entrepreneurial-oriented. Additionally, Iyer and Doucette (2003) found that the relationships between pharmacy size and performance, as well as pharmacy age and performance, were positive statistically significant. Based on correlation analysis and extant literature, age (AGE) and size (FTP, FTT, and MP) variables were included as control variables in subsequent structural equation modelling.

5.3.9 Mean Comparisons

Province, respondent's education, pharmacy type, and pharmacy location were categorical, as opposed to numeric, data. Therefore, the group mean scores of MO, EO, FP, and IHO were compared based on the categorical control variables.

5.3.9.1 Province

ANOVAs were conducted to compare the group mean scores of major constructs based on the pharmacy's province. There were no statistically significant differences among the provincial MO ($F(3, 187) = 2.317, p = 0.077$), EO ($F(3, 187) = 0.953, p = 0.416$), FP ($F(3, 187) = 0.536, p = 0.658$), and IHO ($F(3, 187) = 2.047, p = 0.109$) scores.

5.3.9.2 Respondent's education

ANOVAs were conducted to compare the group mean scores of major constructs based on the respondent's education. It was found that MO ($F(2, 175) = 1.115, p = 0.330$), EO ($F(2, 175) = 0.247, p = 0.781$), FP ($F(2, 175) = 0.663, p = 0.517$), and IHO ($F(2, 175) = 0.936, p = 0.394$) scores did not significantly differ based on respondent's education.

5.3.9.3 Pharmacy type

ANOVAs were conducted to compare the group mean scores of major constructs based on pharmacy type. It was found that MO ($F(3, 167) = 2.327, p = 0.077$), EO ($F(3, 167) = 0.554, p = 0.646$), FP ($F(3, 167) = 1.272, p = 0.286$), and IHO ($F(3, 167) = 1.773, p = 0.154$) scores did not significantly differ based on pharmacy type.

5.3.9.4 Pharmacy location

Independent sample t-tests were conducted to compare the group of respondents from cities versus towns, based on their group mean scores of the major constructs. There were no significant differences among the groups' MO ($t(184) = 0.404, p = 0.686$), EO ($t(184) = 1.000, p$

= 0.319), and FP ($t(184) = -0.527, p = 0.599$) scores. However, there was a statistically significant difference ($t(184) = 1.983, p = 0.049$) between IHO mean scores in cities ($M = 4.648, SD = 0.451$) and IHO mean scores in towns ($M = 4.508, SD = 0.497$).

5.3.10 Structural Equation Modelling

The hypotheses were tested using structural equation modelling. Hypothesized mediation relationships were explored using Baron and Kenny's (1986) mediation testing procedures and examined in isolation from the larger structural model. Hypothesized direct effects were evaluated in the path analysis of the larger structural equation model.

5.3.10.1 Mediation models

It was hypothesized that EO's relationship with FP would be mediated by BSINN. Following Baron and Kenny's (1986) procedural recommendations, the EO and FP relationship was explored in the absence of BSINN. The path analysis of the structural equation model showed EO had a positive and statistically significant effect on FP (Figure 5.7).

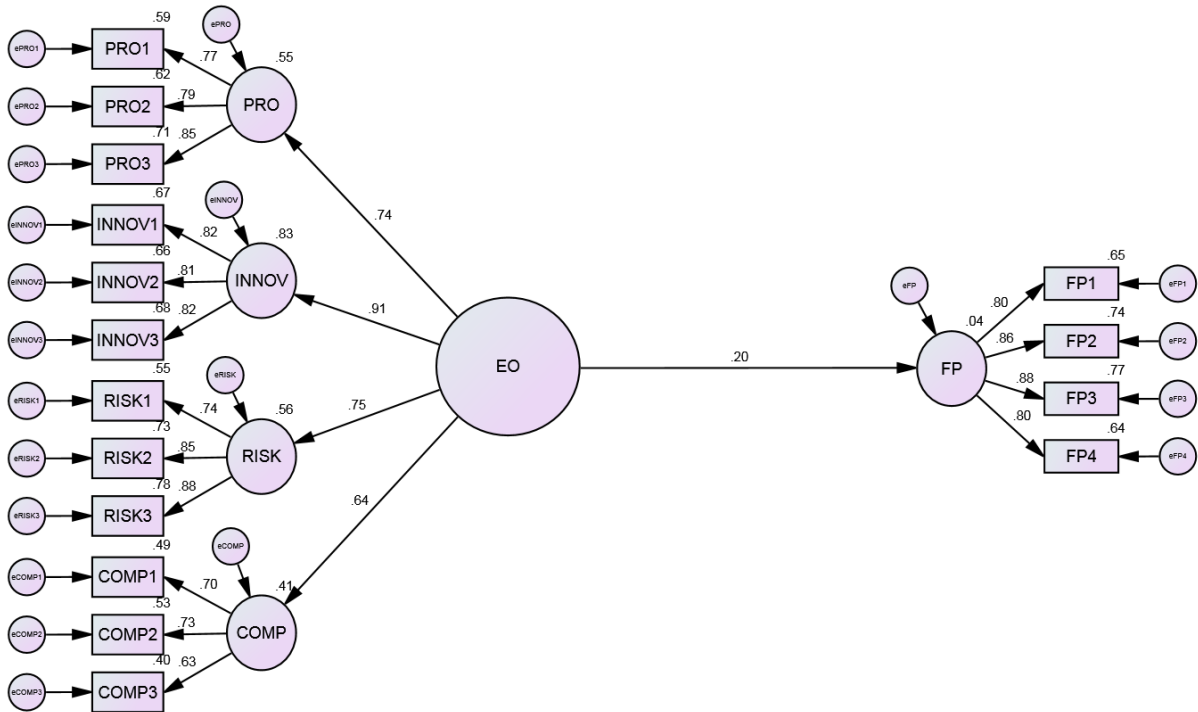


Figure 5.7 EO and FP

All of the model's standardized regression weights were positive and statistically significant (Table 5.24).

Table 5.24 EO and FP Standardized Regression Weights

	Estimate
FP \leftarrow EO	0.205**
EO \leftarrow PRO	0.744**
EO \leftarrow INNOV	0.910**
EO \leftarrow RISK	0.747**
EO \leftarrow COMP	0.639**
Q13 \leftarrow PRO	0.766**
Q14 \leftarrow PRO	0.789**
Q15 \leftarrow PRO	0.845**
Q16 \leftarrow INNOV	0.818**
Q17 \leftarrow INNOV	0.811**
Q18 \leftarrow INNOV	0.825**
Q19 \leftarrow RISK	0.743**
Q20 \leftarrow RISK	0.852**
Q21 \leftarrow RISK	0.884**
Q25 \leftarrow COMP	0.702**
Q26 \leftarrow COMP	0.728**
Q27 \leftarrow COMP	0.629**
Q45 \leftarrow FP	0.805**
Q46 \leftarrow FP	0.858**
Q47 \leftarrow FP	0.877**
Q48 \leftarrow FP	0.802**

** $p < 0.01$, * $p < 0.05$

The structural model's χ^2/df , CFI, and RMSEA were 1.695, 0.968, and 0.052, respectively (Table 5.25). According to the predetermined cutoffs ($\chi^2/\text{df} \leq 2$, $\text{CFI} \geq 0.90$, $\text{RMSEA} \leq 0.06$), these fit indices demonstrated acceptable model fit.

Table 5.25 EO and FP Model Fit Indices

Fit Indices	Model
χ^2	167.759
Df	99
χ^2/df	1.695
CFI	0.968
RMSEA	0.052

Following Baron and Kenny's (1986) mediation testing procedures, BSINN was introduced into the structural equation model (Figure 5.8).

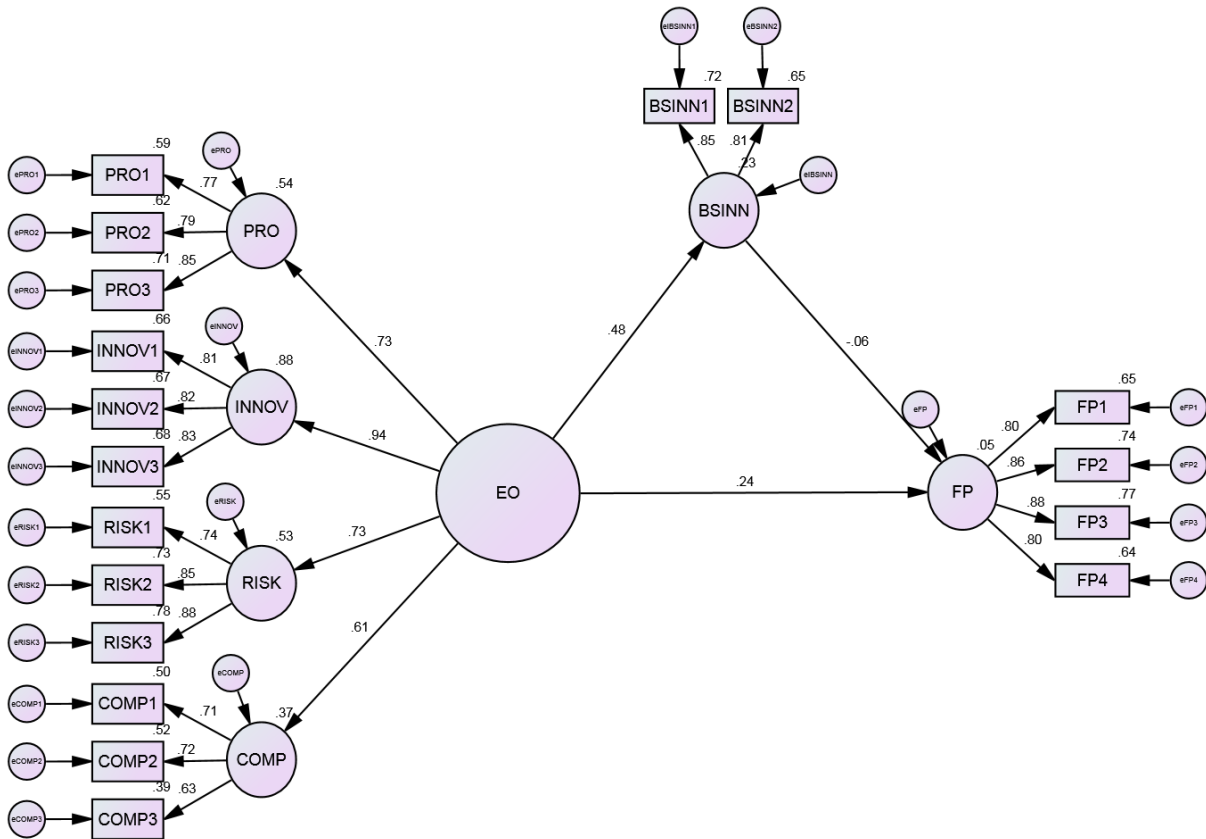


Figure 5.8 EO, BSINN, and FP

The standardized regression weights showed that EO's direct effect on FP remained positive and statistically significant and EO's effect on BSINN was also positive and statistically significant (Table 5.26). However, the relationship between BSINN and FP was not statistically significant (Table 5.26). Therefore, the presented relationship did not support the mediation relationship described in hypothesis six. Instead, it demonstrated that EO had a direct effect on BSINN and FP.

Table 5.26 EO, BSINN, and FP Standardized Regression Weights

	Estimate
FP \leftarrow EO	0.240**
BSINN \leftarrow EO	0.478**
FP \leftarrow BSINN	-0.064
EO \leftarrow PRO	0.732**
EO \leftarrow INNOV	0.939**
EO \leftarrow RISK	0.731**
EO \leftarrow COMP	0.610**
Q13 \leftarrow PRO	0.769**
Q14 \leftarrow PRO	0.785**
Q15 \leftarrow PRO	0.845**
Q16 \leftarrow INNOV	0.812**
Q17 \leftarrow INNOV	0.816**
Q18 \leftarrow INNOV	0.827**
Q19 \leftarrow RISK	0.743**
Q20 \leftarrow RISK	0.852**
Q21 \leftarrow RISK	0.883**
Q25 \leftarrow COMP	0.706**
Q26 \leftarrow COMP	0.724**
Q27 \leftarrow COMP	0.628**
Q55 \leftarrow BSINN	0.849**
Q56 \leftarrow BSINN	0.808**
Q45 \leftarrow FP	0.805**
Q46 \leftarrow FP	0.858**
Q47 \leftarrow FP	0.877**
Q48 \leftarrow FP	0.802**

** $p < 0.01$, * $p < 0.05$

The structural model's χ^2/df , CFI, and RMSEA were 1.783, 0.958, and 0.055, respectively (Table 5.27). According to the predetermined cutoffs ($\chi^2/\text{df} \leq 2$, $\text{CFI} \geq 0.90$, $\text{RMSEA} \leq 0.06$), these fit indices demonstrated acceptable model fit.

Table 5.27 EO, BSINN, and FP Model Fit Indices

Fit Indices	Model
χ^2	228.201
Df	128
χ^2/df	1.783
CFI	0.958
RMSEA	0.055

It was hypothesized that EO's relationship with IHO would be mediated by EXPND.

Following Baron and Kenny's (1986) procedural recommendations, the EO and IHO relationship was explored in the absence of EXPND. The path analysis of the structural model showed EO had a positive and statistically significant effect on IHO (Figure 5.9).

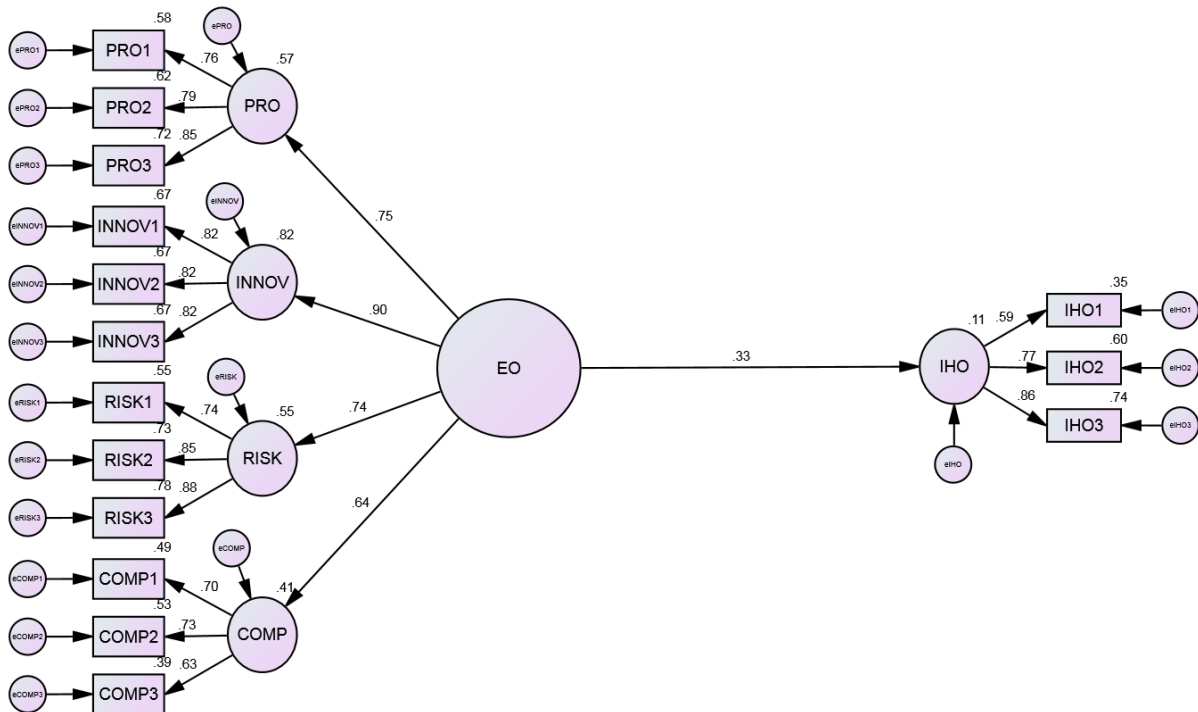


Figure 5.9 EO and IHO

All of the model's standardized regression weights were positive and statistically significant (Table 5.28).

Table 5.28 EO and IHO Standardized Regression Weights

	Estimate
IHO \leftarrow EO	0.329**
EO \leftarrow PRO	0.753**
EO \leftarrow INNOV	0.903**
EO \leftarrow RISK	0.744**
EO \leftarrow COMP	0.642**
Q13 \leftarrow PRO	0.765**
Q14 \leftarrow PRO	0.789**
Q15 \leftarrow PRO	0.847**
Q16 \leftarrow INNOV	0.817**
Q17 \leftarrow INNOV	0.816**
Q18 \leftarrow INNOV	0.821**
Q19 \leftarrow RISK	0.743**
Q20 \leftarrow RISK	0.853**
Q21 \leftarrow RISK	0.882**
Q25 \leftarrow COMP	0.702**
Q26 \leftarrow COMP	0.730**
Q27 \leftarrow COMP	0.626**
Q32 \leftarrow IHO	0.593**
Q35 \leftarrow IHO	0.775**
Q36 \leftarrow IHO	0.858**

** $p < 0.01$, * $p < 0.05$

The structural model's χ^2/df , CFI, and RMSEA were 1.745, 0.964, and 0.054, respectively (Table 5.29). According to the predetermined cutoffs ($\chi^2/\text{df} \leq 2$, $\text{CFI} \geq 0.90$, $\text{RMSEA} \leq 0.06$), these fit indices demonstrated acceptable model fit.

Table 5.29 EO and IHO Model Fit Indices

Fit Indices	Model
χ^2	148.319
Df	85
χ^2/df	1.745
CFI	0.964
RMSEA	0.054

Following Baron and Kenny's (1986) mediation testing procedures, EXPND was introduced into the structural equation model (Figure 5.10).

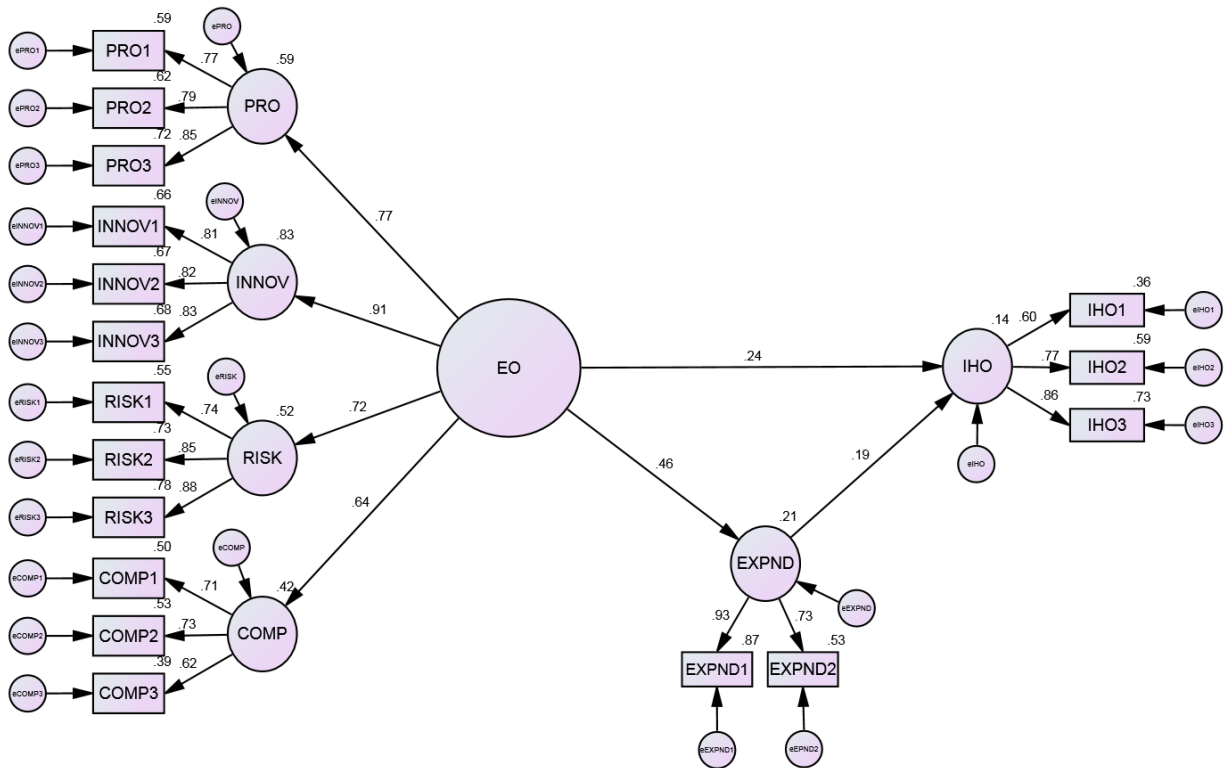


Figure 5.10 EO, EXPND, and IHO

The standardized regression weights showed that EO's direct effect on IHO was reduced but remained positive and statistically significant, EO had a positive and statistically significant effect on EXPND, and EXPND had a positive and statistically significant effect on IHO (Table 5.30). The relationship resembled what Baron and Kenny (1986) described as partial mediation, thus supporting hypothesis seven.

Table 5.30 EO, EXPND, and IHO Standardized Regression Weights

	Estimate
IHO \leftarrow EO	0.244**
EXPND \leftarrow EO	0.460**
IHO \leftarrow EXPND	0.189*
EO \leftarrow PRO	0.766**
EO \leftarrow INNOV	0.909**
EO \leftarrow RISK	0.718**
EO \leftarrow COMP	0.645**
Q13 \leftarrow PRO	0.766**
Q14 \leftarrow PRO	0.787**
Q15 \leftarrow PRO	0.847**
Q16 \leftarrow INNOV	0.810**
Q17 \leftarrow INNOV	0.820**
Q18 \leftarrow INNOV	0.825**
Q19 \leftarrow RISK	0.742**
Q20 \leftarrow RISK	0.853**
Q21 \leftarrow RISK	0.883**
Q25 \leftarrow COMP	0.707**
Q26 \leftarrow COMP	0.730**
Q27 \leftarrow COMP	0.621**
Q32 \leftarrow IHO	0.601**
Q35 \leftarrow IHO	0.765**
Q36 \leftarrow IHO	0.862**
Q49 \leftarrow EXPND	0.831**
Q50 \leftarrow EXPND	0.816**

** $p < 0.01$, * $p < 0.05$

The structural model's χ^2/df , CFI, and RMSEA were 1.715, 0.959, and 0.053, respectively (Table 5.31). According to the predetermined cutoffs ($\chi^2/\text{df} \leq 2$, $\text{CFI} \geq 0.90$, $\text{RMSEA} \leq 0.06$), these fit indices demonstrated acceptable model fit.

Table 5.31 EO, EXPND, and IHO Model Fit Indices

Fit Indices	Model
χ^2	192.059
Df	112
χ^2/df	1.715
CFI	0.959
RMSEA	0.053

5.3.10.2 Final model without control variables

The remaining hypotheses were tested in the path analysis of the final structural equation model (Figure 5.11).

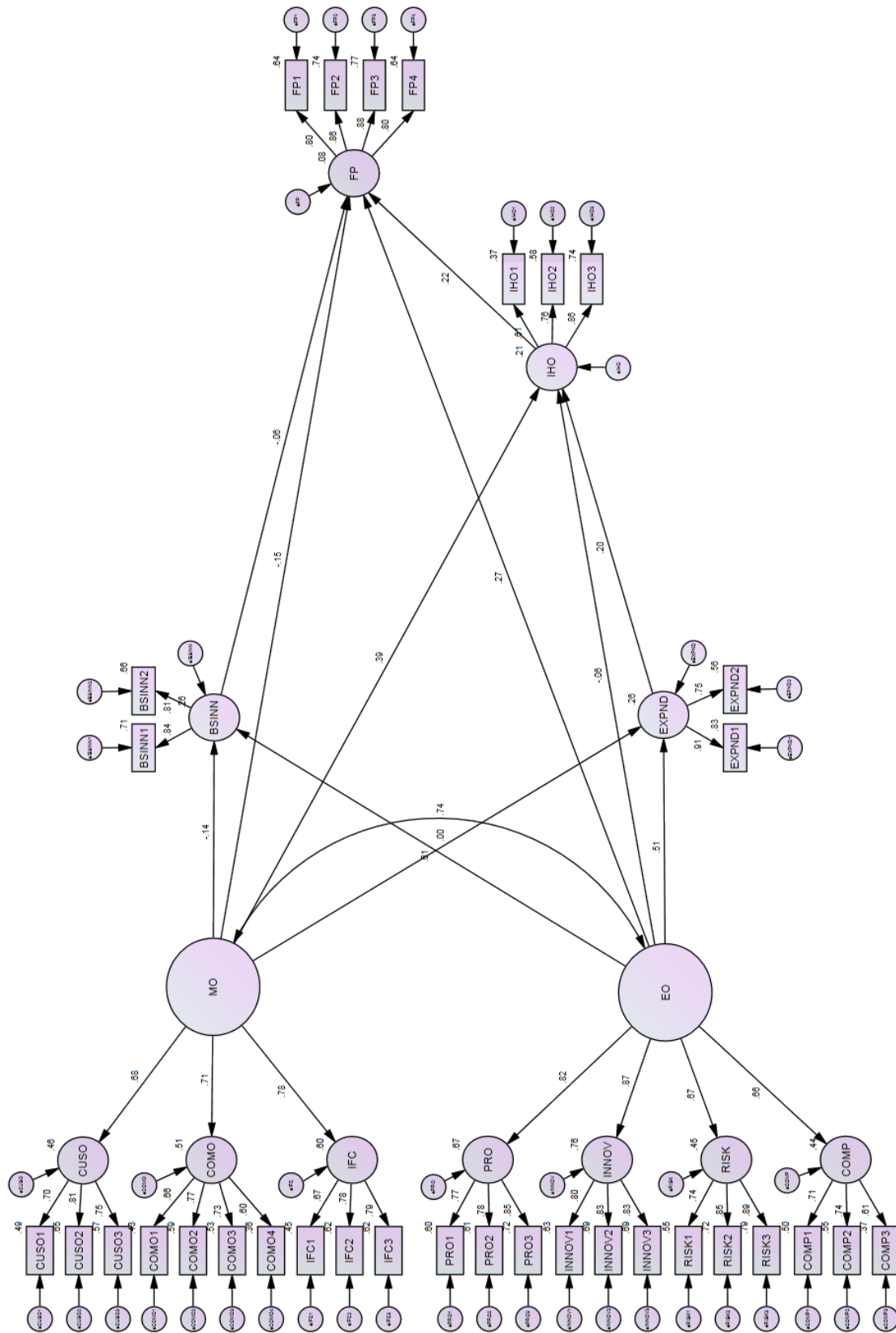


Figure 5.11 Structural Model

Table 5.32 shows the correlation between MO and EO and Table 5.33 summarizes the structural model's standardized regression weights.

Table 5.32 Structural Model's Correlations

	Estimate
EO ↔ MO	0.742

Table 5.33 Structural Model's Standardized Regression Weights

	Estimate
EXPND ← MO	0.002
BSINN ← MO	-0.143
IHO ← MO	0.395*
FP ← MO	-0.147
EXPND ← EO	0.505**
BSINN ← EO	0.605**
IHO ← EO	-0.064
FP ← EO	0.267
IHO ← EXPND	0.197*
FP ← BSINN	-0.058
FP ← IHO	0.220*

** $p < 0.01$, * $p < 0.05$

The correlation between MO and EO was positive and statistically significant ($p < 0.001$), supporting hypothesis one. The relationship between MO and FP was not significant and did not support hypothesis two. The relationship between MO and IHO was positive and statistically significant ($p < 0.05$), supporting hypothesis three. The relationship between MO and BSINN was not statistically significant, failing to support hypothesis four. The MO and EXPND path was also not statistically significant and failed to support hypothesis five. Although hypothesis six was not supported, it was found that EO had a positive, direct, and statistically significant effect on BSINN ($p < 0.001$) and FP ($p < 0.001$). The positive and statistically significant effect found between EO and EXPND ($p < 0.01$) as well as EXPND on IHO ($p < 0.05$), in the absence of a significant effect of EO on IHO, reaffirmed support for

hypothesis seven. Finally, the positive and statistically significant relationship between IHO and FP ($p < 0.01$) supported hypothesis eight.

The structural model's χ^2/df , CFI, and RMSEA were 1.834, 0.902, and 0.057, respectively (Table 5.34). According to the predetermined cutoffs ($\chi^2/\text{df} \leq 2$, $\text{CFI} \geq 0.90$, $\text{RMSEA} \leq 0.06$), these fit indices demonstrated acceptable model fit.

Table 5.34 Structural Model's Fit Indices

Fit Indices	Model
χ^2	873.079
Df	476
χ^2/df	1.834
CFI	0.902
RMSEA	0.057

All of the model fit indices met the previously defined cutoffs, suggesting that the data fit the model well. The squared multiple correlations of the endogenous variables BSINN, EXPND, IHO, and FP were 0.258, 0.257, 0.207, and 0.084, respectively (Table 5.35). Therefore, the path model suggests that the hypothesized antecedents explained 25.8% of the variance in BSINN, 35.7% of the variance in EXPND, 20.7% of the variance in IHO, and 8.4% of the variance in FP.

Table 5.35 Squared Multiple Correlations

	Estimate
BSINN	0.258
EXPND	0.257
IHO	0.207
FP	0.084

5.3.10.3 Final model with control variables

All numeric control variables (AGE, FTP, FTT, and MP) were initially included as predictors of FP in the final structural equation model. However, the model fit indices were not acceptable. The standardized regression weights of AGE, FTT, and MP were near zero and not

statistically significant. In an attempt to improve model fit, FTP was included, but AGE, FTT, and MP were excluded, and the model was retested (Figure 5.12).

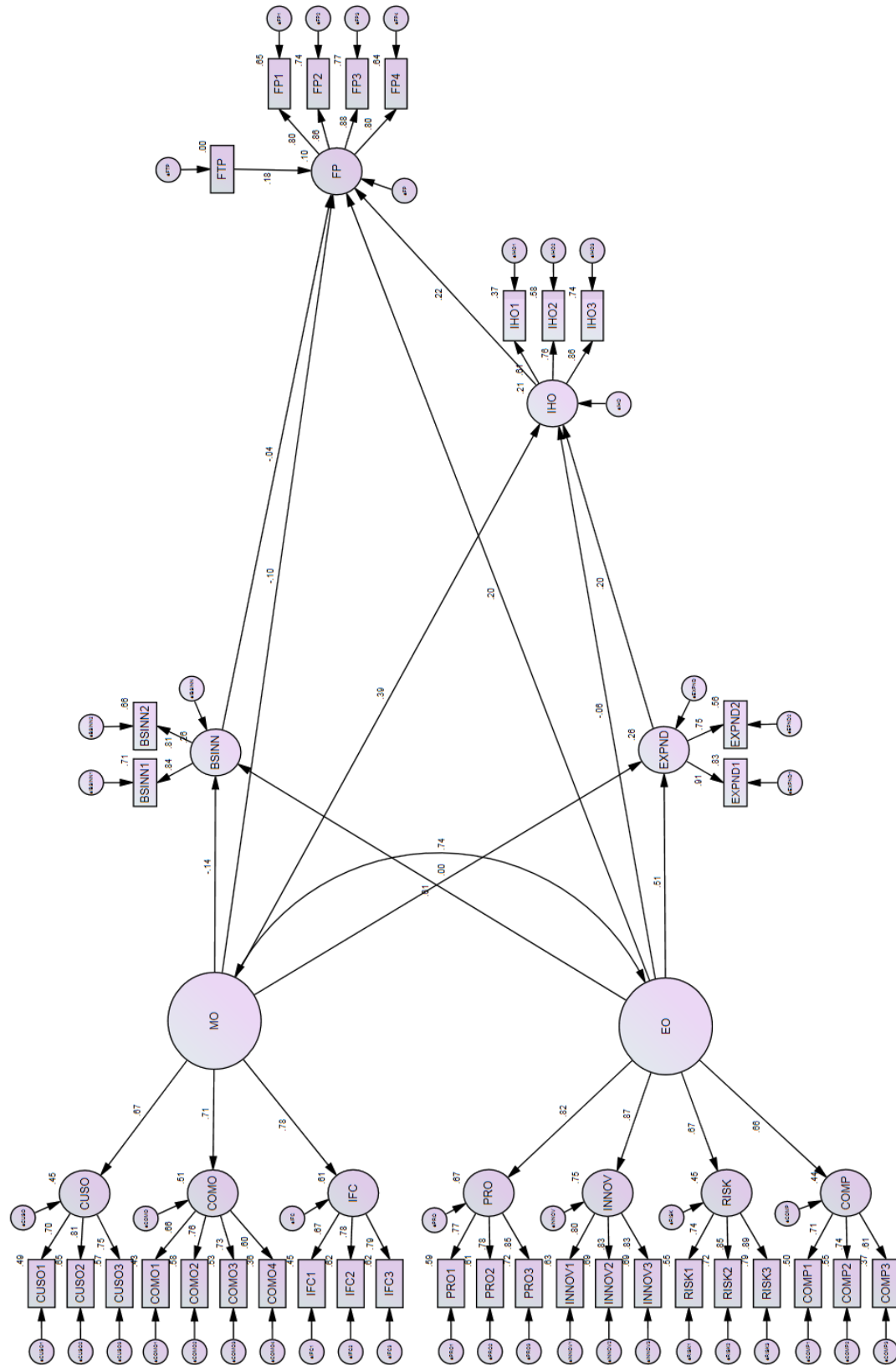


Figure 5.12 Structural Model with FP

The correlation between MO and EO remained positive and statistically significant (Table 5.36), all standardized regression weights remained unchanged with respect to direction and significant level (Table 5.37), and the model fit indices remained acceptable (Table 5.38). Therefore, it can be concluded that when controlling for size (FTP), the path model was unchanged.

Table 5.36 Structural Model with FP's Correlations

	Estimate
EO \leftrightarrow MO	0.743

Table 5.37 Structural Model with FP's Standardized Regression Weights

	Estimate
EXPND \leftarrow MO	0.000
BSINN \leftarrow MO	-0.144
IHO \leftarrow MO	0.393*
FP \leftarrow MO	-0.096
EXPND \leftarrow EO	0.507**
BSINN \leftarrow EO	0.606**
IHO \leftarrow EO	-0.063
FP \leftarrow EO	0.204
IHO \leftarrow EXPND	0.198*
FP \leftarrow BSINN	-0.035
FP \leftarrow IHO	0.215**
FP \leftarrow FTP	0.175

** $p < 0.01$, * $p < 0.05$

Table 5.38 Structural Model with FP's Fit Indices

Fit Indices	Model
χ^2	894.449
Df	508
χ^2/df	1.761
CFI	0.905
RMSEA	0.054

Although the FTP and FP relationship was not statistically significant (Table 5.37), the control variable's inclusion added to the variance explained (Table 5.39). Specifically, the

squared multiple correlations of the endogenous variable FP increased from 0.084 to 0.104 (Table 5.39), suggesting that the inclusion of FTP explained 2.0% more of the variance in FP.

Table 5.39 Squared Multiple Correlations

	Estimate
BSINN	0.258
EXPND	0.257
IHO	0.207
FP	0.104

5.3.11 Post-Hoc Analysis

5.3.11.1 Work ethic

Doucette and Jambulingam's (1999) work ethic dimension was a significant contribution to EO literature. Unfortunately, in the item-to-dimension loading for Q18 was not ideal ($\beta < 0.60$) and the work ethic dimension posed loading challenges with the EO construct. Therefore, the work ethic dimension was eliminated from the EO construct. Due to the seminal work of Doucette and Jambulingam (1999), work ethic was explored as an additional antecedent in a post-hoc structural equation model. Specifically, work ethic was exclusively explored with BSINN, EXPND, IHO, and FP (Figure 5.13).

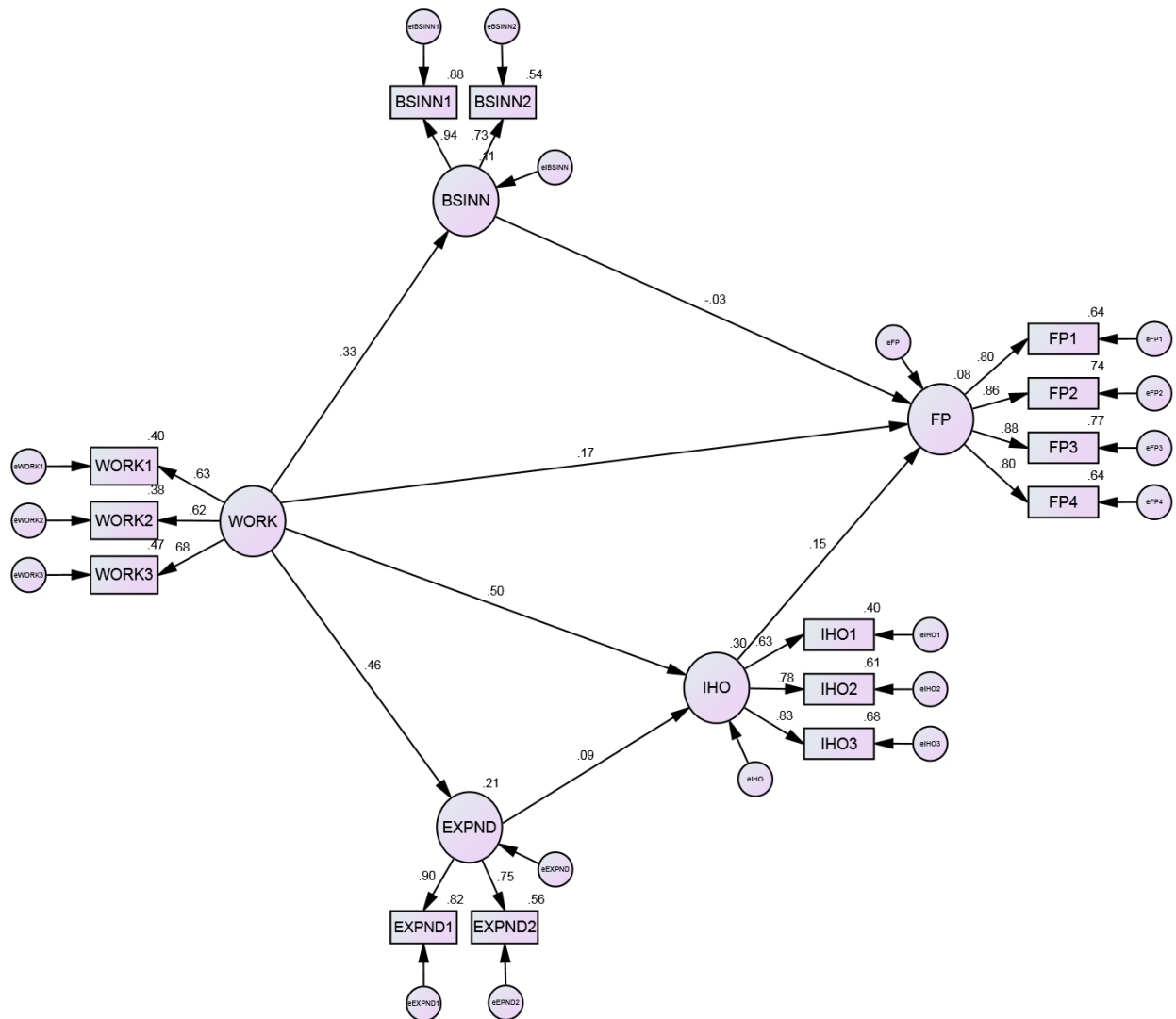


Figure 5.13 Work Ethic Structural Model

Work ethic had a positive and statistically significant effect on BSINN, EXPND, and IHO ($p < 0.001$). However, the relationships between work ethic and FP, EXPND and IHO, BSINN and FP, as well as IHO and FP, were not statistically significant ($p > 0.05$). Below are the standardized regression weights (Table 5.40).

Table 5.40 Work Ethic Structural Model Standardized Regression Weights

	Estimate
BSINN \leftarrow WORK	0.333**
EXPND \leftarrow WORK	0.457**
IHO \leftarrow WORK	0.497**
FP \leftarrow WORK	0.175
FP \leftarrow IHO	0.153
Q28 \leftarrow WORK	0.631**
Q29 \leftarrow WORK	0.617**
Q30 \leftarrow WORK	0.683**
Q55 \leftarrow BSINN	0.936**
Q56 \leftarrow BSINN	0.733**
Q49 \leftarrow EXPND	0.905**
Q50 \leftarrow EXPND	0.749**
Q32 \leftarrow IHO	0.632**
Q35 \leftarrow IHO	0.779**
Q36 \leftarrow IHO	0.827**
Q45 \leftarrow FP	0.803**
Q46 \leftarrow FP	0.861**
Q47 \leftarrow FP	0.877**
Q48 \leftarrow FP	0.801**

** $p < 0.01$, * $p < 0.05$

The structural model's χ^2/df , CFI, and RMSEA were 1.843, 0.959, and 0.057, respectively (Table 5.41). According to the predetermined cutoffs ($\chi^2/\text{df} \leq 2$, $\text{CFI} \geq 0.90$, $\text{RMSEA} \leq 0.06$), these fit indices demonstrated acceptable model fit.

Table 5.41 Work Ethic Structural Model Fit Indices

Fit Indices	Model
χ^2	129.008
Df	70
χ^2/df	1.843
CFI	0.959
RMSEA	0.057

The squared multiple correlations of the endogenous variables BSINN, EXPND, IHO, and FP were 0.111, 0.209, 0.297, and 0.078, respectively (Table 5.42). Therefore, the path

model suggests that the antecedents explained 11.1% of the variance in BSINN, 20.9% of the variance in EXPND, 29.7% of the variance in IHO, and 7.8% of the variance in FP.

Table 5.42 Work Ethic Squared Multiple Correlations

	Estimate
BSINN	0.111
EXPND	0.209
IHO	0.297
FP	0.078

5.4 Western Canadian Study Discussion

The western Canadian study yielded a response rate of 7.9% (259/3,269). Although the overall response rate was comparable to a recent national study of Canadian pharmacists (Jorgenson, et al. 2016), there was evidence of a provincial response bias, as the proportion of responses did not resemble the proportion of pharmacies in each province. There were disproportionately more responses from Manitoba and Saskatchewan as compared to Alberta and British Columbia. The most logical explanation for these differences related to the study's provincial regulatory endorsement. As discussed, the Saskatchewan College of Pharmacy Professionals and the College of Pharmacists of Manitoba endorsed the study and provided their e-mail database of pharmacy managers. In contrast, the Alberta College of Pharmacists and the College of Pharmacists of British Columbia did not provide their e-mail databases, nor could they be accessed via their website. The inability to receive an endorsement from these provinces likely attributed to the lower response rates (Dillman 2000). Consequently, the delivery method of the invitation to participate differed and may have attributed to a lower response rate among those that received a postcard versus an e-mail. Although response rates differed, there were no differences found among the provincial MO, EO, FP, and IHO scores. This is of particular interest, given each province differed with respect to the expanded scope of practice legislation,

implementation, and remuneration. Additionally, there was no evidence to support a non-response bias, as early and late responders were not found to be different.

In general, few differences were found with respect to the demographic data. Unlike Perepelkin and Dobson's (2010) findings that showed independent and franchise pharmacy managers had higher business orientations than corporate pharmacy managers, strategic orientations and performance did not differ based on pharmacy type. Similarly, pharmacy MO, EO, FP, and IHO scores did not differ based on the respondents' education. Perhaps, the long history of curriculums including business strategy prepares pharmacists for the implementation of strategic orientations such as MO and EO. Strategic orientations and performance were not found to be different based on pharmacies' age, monthly prescription volume, and number of full-time technicians. However, the number of full-time pharmacists was correlated with financial performance, monthly prescriptions, and number of full-time technicians. It could be that as prescription volume grows, pharmacies are more likely to hire additional pharmacists and technicians to support the growth. Assuming revenue growth exceeds the new labour expenses, improvement in the bottom line may also be realized. Although FP and the strategic orientations did not differ based on location, IHO was found to be higher in cities as compared to towns. One explanation for this could be related to Kelly et al.'s (2014) discussion of pharmacists' collaboration with other healthcare professionals. Perhaps, the higher IHO in cities is related to greater pharmacist collaboration with a larger and more diverse group of healthcare professionals.

In addition to the various demographic findings, the structural equation model supported many of the delineated hypotheses. Equally, new insight was gained from those hypotheses that were not supported. The first hypothesis was supported, as MO and EO were found to be

correlated. This finding is consistent with both the pilot study and interview results, suggesting MO and EO are complementary strategic orientations. Conceptually, the organizational motivation to serve patients and differentiate from competitors is aligned with the drive to take business risks in an attempt to be first to market with innovations. Not only are the two strategic orientations theoretically and statistically related, their influence on organizational performance was shown to be favourable.

Hypothesis two posited MO would have a direct and positive effect on FP. The path analysis of the structural equation model revealed MO's effect on FP was not significant, failing to support the second hypothesis. This finding is inconsistent with the pilot study results, interview findings, and a substantial body of literature (Barrett and Weinstein 1998; Slater and Narver 2000; Hult, Hurley, and Knight 2004; Baker and Sinkula 2009; Laukkanen, et al. 2013; Veidal and Korneliussen 2013; Buli 2017; Micheels and Boecker 2017; Nasir, Mamun, and Breen 2017). Although the direct effect of MO on FP was not supported, MO was found to have a direct effect on IHO.

MO's effect on IHO, a non-financial performance measure, was positive and statistically significant, supporting hypothesis three. Similar to Wood, Bhuian, and Kiecker's (2000) findings, a market-oriented approach in healthcare results in increased patient health outcomes. Not surprisingly, a strong understanding of patients and a commitment to serving their best interests lead to successful therapeutic interventions, effective patient counselling, and improved quality of care. The direct link between MO and IHO is novel and validates MO as a relevant strategic orientation in the context of community pharmacy. Given pharmacists' perception that their professional orientation is critical in achieving their practice objectives, the implementation of a complementary strategic orientation such as MO would only serve to further such goals.

Interestingly, MO's effect on BSINN and EXPND was not statistically significant, failing to support hypothesis four and five. Although these results were inconsistent with some previous findings (Hult, Hurley, and Knight 2004; Grinstein 2008), they resembled the works of Baker and Sinkula (2009) and Micheels and Boecker (2017). Baker and Sinkula (2009) found that in the absence of EO, MO was an antecedent to innovative success. However, in their model that included EO, MO's effect on innovative success was not significant. Baker and Sinkula (2009) concluded that while MO is an important strategic orientation to innovating, EO is more important. Micheels and Boecker (2017) found that MO did not influence product innovations but was significantly related to marketing innovations, suggesting MO's influence on innovations may depend, at least in part, on the type of innovation.

An entrepreneurial-oriented organization is highly motivated to create all types of innovations. To this end, innovativeness is a core component in the EO construct (Covin and Slevin 1989). The importance of EO in driving organizational innovativeness was shown in the structural equation model's path analysis, as EO had a positive and statistically significant effect on both BSINN and EXPND. Although EO's effect on BSINN was supported, BSINN was not found to have a significant effect on FP, thus failing to support hypothesis six. Consistent with the extant literature, the mediating role of EXPND in the EO and IHO relationship supported hypothesis seven. With regard to IHO, the result was consistent with a large body of research that has found EO's effect on organizational performance to be mediated by an innovation variable (Hult, Hurley, and Knight 2004; Baker and Sinkula 2009; Veidal and Korneliussen 2013; Nasir, Mamun, and Breen 2017).

In the final hypothesis, it was postulated that non-financial performance would have a direct and positive effect on financial performance. This was supported, as IHO's effect on FP

was positive and statistically significant. This finding reaffirmed the pilot study and semi-structured interview data. As expected, the ability of a healthcare organization to create positive patient outcomes lead to financial reward. Moreover, the service-profit chain theory that suggests serving the best interests of customers will lead to long-term value was also supported. The link between improving the health of patients and the financial reward for such undertakings is perhaps the study's greatest contribution, as it validates the successful balance of the profession's dual objectives.

Further support for the presented relationships was demonstrated in the path analysis of the structural equation model that controlled for size. Specifically, when FTP was introduced as a control variable, all standardized regression weights remained unchanged with respect to direction and significant level. Moreover, the inclusion of FTP improved FP's variance explained. Overall, the squared multiple correlations of the endogenous variables were comparable to, and in some cases better than, similar studies (Slater and Narver 2000; Bhuian, Menguc, and Bell 2005; Song and Jing 2017). The structural equation models contributed to the MO and EO literature with respect to both the domain and variable inclusions. In this particular context, a pharmacy's MO was shown to be positively correlated with EO and to have a direct positive effects IHO. EO was shown to have positive direct effects on BSINN and EXPND. EXPND was shown to have a direct positive effect on IHO and IHO was shown to have a direct positive effect on FP. It is clear that the strategic orientations work together to directly improve performance and contribute to innovations that also enhance performance.

The post-hoc work ethic model added similar new knowledge to the EO pharmacy literature, as it was shown to have direct effects on EXPND, IHO, and FP. Interestingly, in the preliminary work of Doucette and Jambulingam (1999), work ethic had the lowest factor loading

of all dimensions. Although the work ethic dimension posed loading challenges with EO, its importance in pharmacy practice was well supported. It could be that work ethic is not necessarily an EO prerequisite, yet it is important to the success of Canadian community pharmacies. Recall, work ethic was described by interview respondents as highly important to the success of their practice.

Synthesizing the results of the pilot study and semi-structured interviews largely support the findings of the western Canadian study, as the strategic orientations of Canadian community pharmacies contribute to the creation of new innovations that lead to improved patient health and financial rewards. Notwithstanding, there were several limitations of the final study.

The greatest limitation of the study was the inability to secure endorsements and e-mail databases from provincial regulatory bodies. Consequently, the scope of the study was narrowed and the methodology used to disseminate the invitation to complete the questionnaire was inconsistent. Although no differences were found with respect to key constructs among the provinces, there were proportionally more responses from Manitoba and Saskatchewan. The proportion of responses was not equivalent to the proportion of provincial pharmacies, resulting in a provincial response bias. The provincial response bias limited the generalizability of the findings to Manitoba and Saskatchewan. Another limitation of the western Canadian study was the single-respondent approach, as one respondent per pharmacy answered all of the questions of the survey. In an attempt to reduce the single-respondent bias, respondents were asked if they were capable of answering questions related to all organizational functions. Similar to the pilot study and thematic analysis of the semi-structured interviews, the researcher's personal bias was a limitation of the study. The nature of the investigation and the hypothesized antecedents to pharmacy performance were generated from literature and ultimately guided by the researcher's

knowledge and interests. According to the structural equation model results, the strategic orientations and innovations explain just over 20% of IHO and 10% of FP. Although the strategic orientations and innovations are important, it is evident that other orientations, practices, and factors contribute to a pharmacy's ability to improve patient health and generate financial returns. Future research should explore additional strategic orientations (e.g. learning orientation) in community pharmacy and other healthcare practice settings with dual professional and business objectives (e.g. dentistry).

CHAPTER 6 CONCLUSION

The three studies of this thesis offer the importance of two strategic orientations in Canadian community pharmacy. The importance of MO and EO adds to the growing body of research focused on effective strategic orientations in pharmacy. Not only were the strategic orientations shown to be complementary, their effects on innovating, improved patient health outcomes, and financial performance were demonstrated.

In the pilot study, MO was shown to have a direct positive effect on a pharmacy's financial strength. The importance of a MO in achieving FP was also found in the semi-structured interviews. Respondents discussed the importance of patient knowledge, competitive differentiation, and organizational coordination in achieving patient health and financial targets. Although MO's direct effect on FP was not significant in the western Canadian study's structural equation model, it was indirectly linked to FP through IHO. It can be concluded that pharmacies that are patient-oriented, competitor-oriented, and interfunctionally coordinated are more likely to be entrepreneurial as well as realize improved patient health outcomes and financial performance.

The effect of EO was shown to be different, but complementary to MO. In the pilot study, EO's effect on NFP was positive and statistically significant. However, in the western Canadian study, EO was shown to have a direct positive effect on FP. Although the results of the pilot and western Canadian studies differed, interview respondents spoke to EO's dual importance in achieving financial and patient health outcomes. Undoubtedly, entrepreneurial-oriented community pharmacies can implement expanded service and business innovations that directly and indirectly contribute to improved patient health and the bottom line.

It is evident that a community pharmacy's MO and EO contribute to the creation of new innovations, improved patient health, and financial reward. The importance of the strategic orientations further adds to literature involving strategic orientations in community pharmacy. At a macro level, the findings are consistent with Perepelkin and Dobson (2010), as business orientations, MO and EO, were shown to be important contributors to the dual objectives of community pharmacies. The professional practice implications are particularly relevant given the dynamic changes in Canadian community pharmacy.

An entrepreneurial proclivity was shown to be a valid orientation when innovating. Specifically, an entrepreneurial-oriented approach was shown to influence business innovations and expanded service innovations. Although not the only strategic approaches, market and entrepreneurial orientations are directly and indirectly linked to improving patient health and financial outcomes. The entrepreneurial drive was directly linked to implementing innovations as well as financial reward. Although secondary to patient health, the direct link between an entrepreneurial-oriented approach and monetary performance may serve as a viable organizational strategy to increase the bottom line. The importance of a market-oriented approach to improving patient health outcomes is one of the most significant implications. As a pharmacist's main objective is to best serve their patients, an organizational orientation that contributes to that objective is particularly salient.

It is assumed that the intent of the expanded scope of practice was to improve patient health. This was empirically supported in the final study via the implementation of expanded service innovations and improved patient health outcome link. Moreover, regardless of remuneration for the expanded service offering, it was shown that financial compensation comes

indirectly through improving patient experiences and health. Therefore, serving the best interest of patients creates positive health outcomes and is likely a relationship worth fostering.

In addition to the professional practice implications, this study contributes to a large body of MO and EO scholarly work. First, the strategic combination of MO and EO was demonstrated in a new domain. Second, EO was shown to play a critical role in delivering new innovations such as expanded pharmacy services and new products and services. Third, support for MO and EO's effect on positive financial outcomes was further demonstrated. Finally, MO and EO were shown to have unique influences on a newly explored performance instrument, improved patient health outcomes. Overall, the findings fill a needed gap and add to existing strategic orientation literature in social administrative pharmacy and strategic management academia.

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APPENDIX 1

Pharmacists' Scope of Practice in Canada

Scope of Practice ¹		Province/Territory												
		BC	AB	SK	MB	ON	QC	NB	NS	PEI	NL	NWT	YT	NU
Prescriptive Authority (Schedule 1 Drugs) ¹	Independently, for any Schedule 1 drug	X	✓ ⁵	X	X	X	X	X	X	X	X	X	X	X
	In a collaborative practice setting/agreement	X	✓ ⁵	✓ ⁵	✓ ⁵	X	X	✓	✓	X	X	X	X	X
	Initiate ²													
	For minor ailments/conditions	X	✓	✓	✓ ⁵	X	✓	✓	✓	✓ ⁵	✓	X	X	X
	For smoking/tobacco cessation	X	✓	P	✓ ⁵	✓	✓	✓	✓	✓ ⁵	✓	X	X	X
	In an emergency	X	✓	✓	✓	X	X	✓	✓	✓	X	X	X	X
Adapt ³ /Manage	Independently, for any Schedule 1 drug ⁴	X	✓ ⁵	X	X	X	X	X	X	X	X	X	X	X
	Independently, in a collaborative practice ⁴	X	✓ ⁵	✓ ⁵	✓ ⁵	X	X	✓	✓	X	X	X	X	X
	Make therapeutic substitution	✓	✓	✓	X	X	X	✓	✓	✓	✓	X	X	X
	Change drug dosage, formulation, regimen, etc.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	X	X	X
	Renew/extend prescription for continuity of care	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	X	X
Injection Authority (SC or IM) ^{1,5}	Any drug or vaccine	X	✓	✓	✓	X ⁷	X ⁷	✓	X	✓	✓	X	X	X
	Vaccines ⁶	✓	✓	✓	✓	X	X	✓	✓	✓	✓	X	X	X
	Travel vaccines ⁶	✓	✓	✓	✓	P	X	✓	✓	✓	✓	X	X	X
	Influenza vaccine	✓	✓	✓	✓	✓	X	✓	✓	✓	✓	X	X	X
Labs	Order and interpret lab tests	X	✓	P ⁸	✓ ⁹	X	✓	P	✓	P	X	X	X	X
Techs	Regulated pharmacy technicians	✓	✓	✓	✓ ¹⁰	✓	X	✓	✓	✓	✓	X	X	X

1. Scope of activities, regulations, training requirements and/or limitations differ between jurisdictions. Please refer to the pharmacy regulatory authorities for details.

2. Initiate new prescription drug therapy, not including drugs covered under the *Controlled Drugs and Substances Act*.

3. Alter another prescriber's original/existing/current prescription for drug therapy.

4. Pharmacists independently manage Schedule 1 drug therapy under their own authority, unrestricted by existing/initial prescription(s), drug type, condition, etc.

5. Applies only to pharmacists with additional training, certification and/or authorisation through their regulatory authority.

6. Authority to inject may not be inclusive of all vaccines in this category. Please refer to the jurisdictional regulations.

7. For education/demonstration purposes only.

8. Ordering by community pharmacists pending health system regulations for pharmacist requisitions to labs.

9. Authority is limited to ordering lab tests.

10. Pharmacy technician registration available through the regulatory authority (no official licensing).

✓ Implemented in jurisdiction

P Pending legislation, regulation or policy for implementation

X Not implemented

APPENDIX 2

Pilot Study Ethics Exemption



To: Jason Perepelkin
College of Pharmacy and Nutrition
E-Wing Health Sciences, Office 310

Date: July 15, 2015

Re: BEH 15-205

Thank you for submitting your application entitled "**Market Orientation, Entrepreneurial Orientation, and Performance in Saskatchewan Pharmacies**". The application meets the requirements for exemption status as per **Article 2.5 of the Tri-Council Policy Statement (TCPS): Ethical Conduct for Research Involving Humans, December 2014**, which states "*Quality assurance and quality improvement studies, program evaluation activities, and performance reviews, or testing within normal educational requirements when used exclusively for assessment, management or improvement purposes, do not constitute research for the purposes of this Policy, and do not fall within the scope of REB review.*"

It should be noted that though your project is exempt of ethics review, your project should be conducted in an ethical manner (i.e. in accordance with the information that you submitted). It should also be noted that any deviation from the original methodology and/or research question should be brought to the attention of the Behavioural Research Ethics Board for further review.

Please revise the consent form to reflect an exemption from the REB or delete any sections regarding REB approval.

Vivian Ramsden
Chair, Behavioural Research Ethics Board
University of Saskatchewan



APPENDIX 3

Pilot Study Questionnaire



UNIVERSITY OF SASKATCHEWAN

Current Operational Practices of Saskatchewan Pharmacies

Grant Wilson, PhD Student

College of Pharmacy and Nutrition
104 Clinic Place, University of Saskatchewan
Saskatoon, Saskatchewan S7N 2Z4

2015 ©

This questionnaire is part of a study that will lead to the fulfillment of the requirements for a student's PhD degree at the University of Saskatchewan. This study seeks to enhance the researchers understanding of the current operational practices of Saskatchewan pharmacies. It is requested that the pharmacy owner, manager, or the individual that can best speak to the pharmacy's operational practices complete the following questions.

Please check the most appropriate box when answering these questions about your pharmacy's position in the industry:

1. Our business objectives are driven primarily by patient satisfaction:

To No Extent	To A Small Extent	To A Moderate Extent	To A Considerable Extent	To A Great Extent
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

2. Our strategy for competitive advantage is based on our understanding of patients' needs:

To No Extent	To A Small Extent	To A Moderate Extent	To A Considerable Extent	To A Great Extent
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3. Our business strategies are driven by our beliefs about how we can create greater value for patients:

To No Extent	To A Small Extent	To A Moderate Extent	To A Considerable Extent	To A Great Extent
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

4. We measure patient satisfaction systematically and frequently:

To No Extent	To A Small Extent	To A Moderate Extent	To A Considerable Extent	To A Great Extent
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

5. All business functions share information concerning competitors' strategies:

To No Extent	To A Small Extent	To A Moderate Extent	To A Considerable Extent	To A Great Extent
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

6. We rapidly respond to competitive actions that threaten us:

To No Extent	To A Small Extent	To A Moderate Extent	To A Considerable Extent	To A Great Extent
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7. Top managers regularly discuss competitors' strengths and strategies:

To No Extent	To A Small Extent	To A Moderate Extent	To A Considerable Extent	To A Great Extent
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

8. We target patients where we have an opportunity for competitive advantage:

To No Extent	To A Small Extent	To A Moderate Extent	To A Considerable Extent	To A Great Extent
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

9. We freely communicate information about our successful and unsuccessful patient experiences across all business functions:

To No Extent	To A Small Extent	To A Moderate Extent	To A Considerable Extent	To A Great Extent
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

10. All business functions are integrated in serving the needs of our target markets:

To No Extent	To A Small Extent	To A Moderate Extent	To A Considerable Extent	To A Great Extent
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

11. All business functions understand how everyone in our business can contribute in creating patient value:

To No Extent	To A Small Extent	To A Moderate Extent	To A Considerable Extent	To A Great Extent
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

12. We share resources with other business units:

To No Extent	To A Small Extent	To A Moderate Extent	To A Considerable Extent	To A Great Extent
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please check the most appropriate box when answering these questions about your pharmacy's organizational practices:

13. Our pharmacy takes action in anticipation of future market conditions:

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

14. We try to shape our business environment to enhance our presence in the market place:

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

15. Because market conditions are changing, we continually seek out new opportunities:

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

16. Our pharmacy is known as a innovator among pharmacies in our area:

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

17. We promote new and innovative services in our pharmacy:

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

18. Our pharmacy provides leadership in developing new services:

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

19. Taking gambles is part of our strategy for success:

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

20. We take above average risks in our business:

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

21. Taking chances is an element of our business strategy:

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

22. New service ideas suggested by employees are acted upon by decision-makers:

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

23. Management approves of independent activity by employees to develop new services:

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

24. Identifying new business opportunities is the concern of all employees:

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

25. We directly challenge our competitors:

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

26. We are responsive to manoeuvres of our rivals:

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

27. Our actions toward competitors can be termed aggressive:

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

28. We consider ourselves as having high motivation toward work:

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

29. Our employees are a group of hard working individuals:

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

30. At our pharmacy, we are very ambitious about our work:

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please indicate your pharmacy's performance relative to competitors based on its:

31. Ability to reduce medication-related harmful events:

Very Poor	Poor	Average	Good	Very Good
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

32. Prescription filling accuracy:

Very Poor	Poor	Average	Good	Very Good
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

33. Prescription and non-prescription patient counselling:

Very Poor	Poor	Average	Good	Very Good
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

34. Prescription dispensing efficiency:

Very Poor	Poor	Average	Good	Very Good
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

35. Inventory management:

Very Poor	Poor	Average	Good	Very Good
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

36. Expanded services:

Very Poor	Poor	Average	Good	Very Good
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

37. Successful therapeutic interventions:

Very Poor	Poor	Average	Good	Very Good
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

38. Perceived service quality by patients:

Very Poor	Poor	Average	Good	Very Good
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

39. Quality of care for patients:

Very Poor	Poor	Average	Good	Very Good
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

40. Profits:

Very Poor	Poor	Average	Good	Very Good
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

41. Cost control:

Very Poor	Poor	Average	Good	Very Good
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

42. Return on investment:

Very Poor	Poor	Average	Good	Very Good
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

43. Hours or students precepted:

Very Poor	Poor	Average	Good	Very Good
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

44. Continued education internally or externally:

Very Poor	Poor	Average	Good	Very Good
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

45. Understanding of new drugs and therapies:

Very Poor	Poor	Average	Good	Very Good
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please indicate the importance your pharmacy places on its:

46. Ability to reduce medication-related harmful events:

Very Low	Low	Medium	High	Very High
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

47. Prescription filling accuracy:

Very Low	Low	Medium	High	Very High
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

48. Prescription and non-prescription patient counselling:

Very Low	Low	Medium	High	Very High
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

49. Prescription dispensing efficiency:

Very Low	Low	Medium	High	Very High
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

50. Inventory management:

Very Low	Low	Medium	High	Very High
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

51. Expanded services:

Very Low	Low	Medium	High	Very High
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

52. Successful therapeutic interventions:

Very Low	Low	Medium	High	Very High
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

53. Perceived service quality by patients:

Very Low	Low	Medium	High	Very High
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

54. Quality of care for patients:

Very Low	Low	Medium	High	Very High
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

55. Profits:

Very Low	Low	Medium	High	Very High
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

56. Cost control:

Very Low	Low	Medium	High	Very High
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

57. Return on investment:

Very Low	Low	Medium	High	Very High
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

58. Hours or students precepted:

Very Low	Low	Medium	High	Very High
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

59. Continued education internally or externally:

Very Low	Low	Medium	High	Very High
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

60. Understanding of new drugs and therapies:

Very Low	Low	Medium	High	Very High
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please answer the following general questions about your pharmacy:

61. Please check the box that best describes your role:

Owner	Owner/Manager	Manager	Staff Pharmacist	Consultant	Other
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

62. Please specify your educational background: _____

63. Please check the box that best describes your pharmacy:

Hospital	Independent	Franchise	Chain	Grocery/Mass Merchandiser
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

→ If you checked hospital, how many beds? _____

64. Please indicate how many prescriptions your pharmacy fills on a monthly basis: _____

65. Please indicate the number of years that your pharmacy has been in business: _____

66. Please indicate all of the non-dispensing services that your pharmacy provides:

<input type="checkbox"/> Medication reviews	<input type="checkbox"/> Immunization	<input type="checkbox"/> Smoking cessation	<input type="checkbox"/> Diabetes
<input type="checkbox"/> Systematic adherence support (e.g. call backs)	<input type="checkbox"/> Home health care (e.g. medical equipment)	<input type="checkbox"/> Comprehensive annual care plans	<input type="checkbox"/> Specialty compounding
<input type="checkbox"/> Hypertension management	<input type="checkbox"/> Cholesterol management	<input type="checkbox"/> Asthma management	<input type="checkbox"/> Depression and mental illness
<input type="checkbox"/> Complementary and natural therapies	<input type="checkbox"/> Anticoagulation management	<input type="checkbox"/> Specialty/biologic patient follow-up	<input type="checkbox"/> Chronic pain management
<input type="checkbox"/> COPD management	<input type="checkbox"/> Home visits	<input type="checkbox"/> Women's health	<input type="checkbox"/> Geriatric pharmacy
<input type="checkbox"/> Weight management	<input type="checkbox"/> Arthritis management	<input type="checkbox"/> Other	

67. Please indicate all of the expanded scope of practice services that pharmacists in your pharmacy provide:

<input type="checkbox"/> Emergency prescription refills	<input type="checkbox"/> Renew/extend prescriptions	<input type="checkbox"/> Change drug dosage/formulation	<input type="checkbox"/> Make therapeutic substitutions
<input type="checkbox"/> Prescribe minor ailments/conditions	<input type="checkbox"/> Initiate prescription drug therapy	<input type="checkbox"/> Order and interpret lab results	<input type="checkbox"/> Administer drugs by injection
<input type="checkbox"/> Other			

Please provide any additional comments, suggestions, or concerns in the section below:

Thank you for participating in this study – your time and willingness to participate is greatly appreciated!

APPENDIX 4

Pilot Study Cover Letter

RE: Operational Practices of Saskatchewan Pharmacies

This study seeks to enhance our understanding of the current operational practices of Saskatchewan pharmacies. Specifically, the questionnaire inquires about pharmacies' position in the pharmacy industry, organizational practices, and performance. The questionnaire can be completed by visiting <http://bit.ly/1DT4BWu> and entering your access code. Your participation is important and we look forward to your participation. As a token of our appreciation for your participation, if you would like, the information obtained from you and other participants in the study will be aggregated and sent to your pharmacy.

Your participation is important. However, it is completely voluntary and you do not have to complete the questionnaire. You may also refuse to answer individual questions and you may withdraw from the study at any time. The assigned identification code is designed to give the investigators the ability to track responses while keeping your identity strictly confidential. Once the data collection is complete, the list that links identification codes to names will be destroyed. Only the principal investigator (Jason Perepelkin) and co-investigator (Grant Wilson) will have access to the data arising from the study. All information will be stored in password protected files of the principal investigator (Jason Perepelkin) at the University of Saskatchewan. Results will be aggregated to ensure that the identities of individual respondents are safeguarded. Results will be reported in the student researcher's PhD Thesis, refereed periodicals, and at conferences and meetings associated with pharmacy management and social administrative pharmacy.

Should you have any concerns about this research project do not hesitate to contact the principal investigator (Jason Perepelkin) by e-mail (jason.perepelkin@usask.ca), phone (306.966.6992), or facsimile (306.966.6377). Your completion of this questionnaire constitutes consent for the researchers to use the data for the purpose of conducting the study, as this study has received exempt status from the University of Saskatchewan Behavioural Research Ethics Board (BEH 15-205). Should you have any questions regarding your rights as a participant in this study you may call the Ethics Office at the University of Saskatchewan (306.966.2084). Out of town participants may call collect.

Sincerely,

Jason Perepelkin, PhD
Assistant Professor
College of Pharmacy & Nutrition
University of Saskatchewan

Grant Wilson, MSc
PhD Student
College of Pharmacy & Nutrition
University of Saskatchewan

APPENDIX 5

Pilot Study Initial E-Mail

From: Jason Perepelkin
Date: August 3, 2015
To: <<First Name>> <<Last Name>>
Subject: Operational Practices of Saskatchewan Pharmacies

Dear <<First Name>>,

Hope all is well and that you've been able to enjoy some time off this summer! Your contact information was given to me by the Saskatchewan College of Pharmacists for the intent of your participation in a Saskatchewan-wide study. This study, undertaken at the University of Saskatchewan's College of Pharmacy and Nutrition, seeks to understand the current operational practices of Saskatchewan pharmacies. Your participation is extremely important! The questionnaire can be completed by visiting <http://bit.ly/1DT4BWu> and entering your access code <<CODE>>. More information about this study, including confidentiality and the ethics exemption, can be found in the attached cover letter. Thank you in advance for your participation!

Regards,

Jason Perepelkin, PhD
Assistant Professor of Social and Administrative Pharmacy
College of Pharmacy & Nutrition
University of Saskatchewan
104 Clinic Place Saskatoon, SK S7N 2Z4
e: jason.perepelkin@usask.ca
t: +1.306.966.6992 f: +1.306.966.6377

Grant Wilson, MSc
PhD Student
College of Pharmacy & Nutrition
University of Saskatchewan

APPENDIX 6

Pilot Study Reminder E-Mail

From: Jason Perepelkin

Date: August 17, 2015

To: <<First Name>> <<Last Name>>

Subject: Reminder Operational Practices of Saskatchewan Pharmacies

Dear <<First Name>>,

You recently received an e-mail request to participate in a study involving the current operational practices of Saskatchewan pharmacies. Your participation is important. If you have not yet completed the questionnaire and intend to do so, we would ask that you please complete it as soon as possible by visiting <http://bit.ly/1DT4BWu> and entering your access code <<CODE>>. More information about this study, including confidentiality and the ethics exemption is available on the first page of the online questionnaire, that is visible before beginning filling out the questionnaire. Thank you in advance for your participation!

Regards,

Jason Perepelkin, PhD

Assistant Professor of Social and Administrative Pharmacy

College of Pharmacy & Nutrition

University of Saskatchewan

104 Clinic Place Saskatoon, SK S7N 2Z4

e: jason.perepelkin@usask.ca

t: +1.306.966.6992 f: +1.306.966.6377

Grant Wilson, MSc

PhD Student

College of Pharmacy & Nutrition

University of Saskatchewan

APPENDIX 7

Semi-Structured Interviews Ethics Exemption



To: Dr. Jason Perepelkin
Associate Professor of Social and Administrative Pharmacy
College of Pharmacy and Nutrition

Student: Grant Wilson

Date: October 28, 2016

Re: BEH 16-403

Thank you for submitting your application entitled **"Measuring Community Pharmacy Performance: A Qualitative Inquiry"**. The application meets the requirements for exemption status as per **Article 2.5 of the Tri-Council Policy Statement (TCPS): Ethical Conduct for Research Involving Humans, December 2014**, which states *"Quality assurance and quality improvement studies, program evaluation activities, and performance reviews, or testing within normal educational requirements when used exclusively for assessment, management or improvement purposes, do not constitute research for the purposes of this Policy, and do not fall within the scope of REB review."*

It should be noted that though your project is exempt of ethics review, your project should be conducted in an ethical manner (i.e. in accordance with the information that you submitted). It should also be noted that any deviation from the original methodology and/or research question should be brought to the attention of the Behavioural Research Ethics Board for further review.

Please revise the consent form to reflect an exemption from the REB or delete the sections regarding REB approval.

Vivian Ramsden, PhD
Behavioural Research Ethics Board
University of Saskatchewan

APPENDIX 8

Semi-Structured Interviews Protocol

Introduction to Session

Over the summer months of 2015, Saskatchewan community pharmacy managers were surveyed with the intent of understanding the meaning and drivers of pharmacy performance. The main purpose of this interview is to further explore and clarify the findings from this survey. The interviewer will begin with an overview of the interview process, followed by an opening statement, and subsequently asking the interview questions.

Interview Process

The interviewee is asked to be as candid as possible. When the interview is transcribed, the interviewee will be given a pseudonym. Therefore, the information gained in this session will be anonymous and only the interviewee will be able to identify his or her responses.

The questions or statements posed in this interview are intended to be discussed in a flexible format. Therefore, questions from the interviewee are encouraged. The interviewer is not looking for specific answers, but rather the interviewee's professional opinion of the survey results. The interviewee is encouraged to ask for clarity if he or she has misunderstood any question. Furthermore, the interviewee can ask to have his or her comments taken off the record and not used in the final transcript.

Statement

Community pharmacists are unique among healthcare professionals, as they have overlapping professional and business objectives. Recent literature suggests community pharmacists are successful at balancing the dual objectives and recognize the importance of both financial and professional practice outcomes. Echoing recent literature, the interviewee's survey results from Saskatchewan community pharmacy managers suggest pharmacy performance is measured both financially and professionally. Moreover, the survey results suggest that community pharmacy managers' market focus and entrepreneurial proclivity have unique influences on financial and non-financial (professional practice) performance. This interview is designed to further discuss the results, in hopes of better understanding performance and its drivers.

Interview Questions

Performance Objectives

- Do professional and business objectives compete or complement one another?
 - How?
 - Why?

Financial Performance

- When asked about financial performance, Saskatchewan community pharmacy managers assigned a high importance to profits (4.94/5) and return on investment (3.88/5).
 - Do you agree or disagree?
 - Why or why not?
 - What other metrics would you use to evaluate financial performance?

Non-Financial (Professional Practice) Performance

The survey data suggests non-financial performance includes patient safety, operational efficiency, and quality offerings.

- When asked about patient safety, Saskatchewan community pharmacy managers assigned an extremely high importance to prescription filling accuracy (4.66/5) and reducing harmful events (4.46/5) and assigned a high importance to patient counseling (4.38/5), successfully therapeutic interventions (4.13/5), and understanding new drugs and therapies (3.99/5).
 - Do you agree or disagree with their evaluation?
 - Why or why not?
 - What other metrics would you use to evaluate patient safety?
- When asked about efficient operations, Saskatchewan community pharmacy managers assigned a high importance to dispensing efficiency (4.39/5), inventory management (4.13/5) and cost control (3.83/5).
 - Do you agree or disagree with their evaluation?
 - Why or why not?
 - What other metrics would you use to evaluate efficiency?
- When asked about value offerings, Saskatchewan community pharmacy managers assigned an extremely high importance to quality of care (4.5/5) and service quality (4.46) and a high importance to expended services (4.07/5).
 - Do you agree or disagree with their evaluation?
 - Why or why not?
 - What other metrics would you use to evaluate value offerings?
- Knowing that the survey data suggests patient safety, efficient operations, and quality offerings comprise non-financial performance, are there any other important performance metrics not discussed?

Drivers of Financial Performance

The survey data suggests that high market knowledge and focus leads to financial performance.

- Are the following items important to financial? Why or why not?
 - Customer knowledge and focus
 - Competitor knowledge and focus
 - Departmental knowledge

The survey data suggests that entrepreneurial tendencies do not lead to financial performance.

- Are the following items important to financial performance? Why or why not?
 - Innovating
 - Risk-taking
 - Proactive undertakings
 - Work ethic
 - Autonomy
 - Competitiveness

Drivers of Non-Financial (Professional Practice) Performance

The survey data suggests that high market knowledge and focus leads to high non-financial performance.

- Are the following items important to non-financial performance? Why or why not?
 - Customer knowledge and focus
 - Competitor knowledge and focus
 - Departmental knowledge

The survey data suggests that entrepreneurial tendencies lead to high non-financial performance.

- Are the following items important to non-financial performance? Why or why not?
 - Innovating
 - Risk-taking
 - Proactive undertakings
 - Work ethic
 - Autonomy
 - Competitiveness

Ending Questions

- Do you have any questions or comments?

APPENDIX 9

Semi-Structured Interviews Consent Form



You are invited to participate in an interview, as a follow-up study to a survey of pharmacy managers. The title of this study is **Measuring Community Pharmacy Performance: A Qualitative Inquiry**. Please read the below information carefully and contact the researcher for any questions.

Researchers

Dr. Jason Perepelkin, PhD and Grant Wilson, MSc
College of Pharmacy & Nutrition
University of Saskatchewan
104 Clinic Place
Saskatoon, SK S7N 2Z4

Purpose

The purpose of this interview is to further explore and clarify the findings from a study of Saskatchewan community pharmacy managers and owners.

The interview will be scheduled to last approximately one hour. The conversation between you and the interviewer (Grant Wilson) will be recorded in order for the recordings to be transcribed. During the interview and at any time, you may ask to have the recorder turned off. All recorded conversation will de-identify the interviewee, as you will be given a pseudonym. During the hour the interview is expected to last, the interviewer will give an introductory statement, an outline of the interview process, a general overview of the survey data findings, followed by the interview questions. Questions are encouraged, as the interview was designed to be a flexible format.

Potential Risks

The potential risks of this study are minimal. You will be given a pseudonym and your personal information will not be used. There is no chance that your identity will be disclosed. Only the researchers (Dr. Jason Perepelkin & Grant Wilson) will have access to this consent form and your pseudonym. After the interview recording is transcribed, you will receive a copy of the transcription and have an opportunity to review and make omissions.

Potential Benefits

A better understanding pharmacy performance and its drivers will have the potential to guide effective strategy and resource allocation, increase competition, and improve financial and non-financial outcomes in community pharmacy. More broadly and perhaps more significantly, this study has the potential to determine activities that increase performance among healthcare-based businesses (e.g. financial and non-financial outcomes). Increasing health-related performance outcomes can improve the overall health and wellbeing of Canadians.



UNIVERSITY OF
SASKATCHEWAN
College of
Pharmacy and Nutrition

Storage of Data

Your identification will be kept confidential through the transcription. Interview recordings, transcripts, and consent forms will be stored in a secure, locked facility of the Research Supervisor (Dr. Jason Pereplekin), at the University of Saskatchewan, for no less than five years. After this time, if the recordings are no longer needed, they will be deleted.

Confidentiality

Only the researchers will have access to the list that identifies the participants. All direct quotations from transcriptions will maintain your confidentiality, as the pseudonym will be used.

Right to Withdraw

Your participation is completely voluntary, and you may withdraw from the study for any reason, at any time, without penalty of any sort. You may also refuse to respond to any statement or question in the interview. If you withdraw from the study, any data that you have contributed will be destroyed at your request.

Questions

Should you have any questions concerning the study, please feel free to contact the researcher. You may contact the researcher (Grant Wilson) by email (grant.wilson@usask.ca) or telephone (306.241.6007). This study has been exempt (BEH 16-403) on ethical grounds by the University of Saskatchewan Ethics Office on October 28, 2016. Should you have any questions regarding your rights as a participant in this study you may call the Ethics Office at the University of Saskatchewan (306.966.2084). Out of town participants may call collect.

Consent to Participate

Name of Participant

Date

Signature of Participant

Signature of Researcher

APPENDIX 10

Initial List of Codes

Customer orientation and non-financial performance	Sales to wages ratio
Competitor orientation and non-financial performance	Reduced wait times
Interfunctional coordination and non-financial performance	Offering consistency
Customer orientation and financial performance	Employee engagement
Competitor orientation and financial performance	Market share
Interfunctional orientation and financial performance	Revenue
Risk-taking and non-financial performance	Earnings
Innovation and non-financial performance	Profits
Proactiveness and non-financial performance	Pharmacist hours vs. Prescriptions
Work ethic and non-financial performance	Reducing harmful events
Autonomy and non-financial performance	Successful interventions
Competitiveness and financial performance	Prescription filling accuracy
Risk-taking and financial performance	Patient counselling
Innovation and financial performance	Understanding new drugs
Proactiveness and financial performance	Recording near misses
Work ethic and financial performance	Medication reviews
Autonomy and financial performance	Dispensing efficiency
Competitiveness and non-financial performance	Quality of care
Expanded scope of practice	Service quality
Prescription volume	Staffing ratios
Customer satisfaction	Workflow and time management
Return on investment	Prescription volume quotas
Inventory management	Profession first, business second
Margins	Enlightened self-interest
Cost management	Business in pharmacy schools
Workflow efficiency	Remuneration for expanded services
Number of prescriptions dispensed	Community involvement
Cost of goods sold	Customer service
Medication synchronization	

APPENDIX 11

List of Themes

Theme 1

- Cost of goods sold
- Margins
- Revenue
- Earnings
- Profits
- Return on investment
- Prescription volume

Theme 2

- Reducing harmful events
- Successful interventions
- Prescription filling accuracy
- Understanding new drugs
- Patient counselling

Theme 3

- Expanded scope of practice
- Service quality
- Quality of care
- Medication synchronization

Theme 4

- Inventory management
- Workflow efficiency
- Dispensing efficiency
- Staffing ratios

Theme 5

- Prescription volume quotas
- Alternative professional recommendations
- Profession first

Theme 6

- Enlightened self-interest
- Business in pharmacy schools
- Remuneration for expanded services

Theme 7

- Customer orientation and financial performance
- Competitor orientation and financial performance
- Interfunctional coordination and financial performance
- Innovation and financial performance
- Risk-taking and financial performance
- Proactiveness and non-financial performance
- Competitiveness and financial performance
- Autonomy and financial performance
- Work ethic and financial performance

Theme 8

- Customer orientation and non-financial performance
- Competitor orientation and non-financial performance
- Interfunctional coordination and non-financial performance
- Innovation and non-financial performance
- Risk-taking and non-financial performance
- Proactiveness and non-financial performance
- Competitiveness and non-financial performance
- Autonomy and non-financial performance
- Work ethic and non-financial performance

APPENDIX 12

Western Canadian Study Ethics Exemption



To: Jason Perepelkin, PhD
Associate Professor of Social and Administrative Pharmacy
College of Pharmacy and Nutrition
University of Saskatchewan

Student: Grant Wilson

Date: January 12, 2018

Re: BEH 17-439

Thank you for submitting your application entitled "**Market Orientation, Entrepreneurial Orientation, and Performance in Western Canadian Pharmacies**". The application meets the requirements for exemption status as per **Article 2.1 of the Tri-Council Policy Statement (TCPS): Ethical Conduct for Research Involving Humans, December 2014**, which states "*research may involve interaction with individuals who are not themselves the focus of the research in order to obtain information. For example, one may collect information from authorized personnel to release information or data in the ordinary course of their employment about organizations, policies, procedures, professional practices or statistical reports. Such individuals are **not considered participants** for the purposes of this Policy. This is distinct from situations where individuals are considered participants because they are themselves the focus of the research.*"

It should be noted that though your project is exempt of ethics review, your project should be conducted in an ethical manner (i.e. in accordance with the information that you submitted). It should also be noted that any deviation from the original methodology and/or research question should be brought to the attention of the Behavioural Research Ethics Board for further review.

Please revise the consent form to reflect an exemption from the REB or delete the sections regarding REB approval.

Vivian Ramsden, PhD
Behavioural Research Ethics Board
University of Saskatchewan

APPENDIX 13

Western Canadian Study Questionnaire (Saskatchewan)

5/22/2018

Qualtrics Survey Software

Default Question Block

This study, endorsed by the Saskatchewan College of Pharmacy Professionals, seeks to enhance our understanding of the current operational practices of Saskatchewan pharmacies. The questionnaire inquires about your pharmacy's position in the industry, organizational practices, performance, and engagement in the expanded scope of practice. The questionnaire should take you no longer than ten minutes to complete.

Your participation is very important! As a token of our appreciation for your participation, if you would like, the information obtained from you and other participants in the study will be aggregated and sent to your pharmacy. However, your participation is voluntary and you may refuse to complete the questionnaire or answer individual questions. Additionally, you can withdraw at any time.

Results will be aggregated to ensure that the identities of individual respondents are safeguarded. Results will be reported in the student researcher's PhD Thesis, refereed periodicals, and conferences/meetings. Should you have any concerns about this research project do not hesitate to contact the principal investigator, Dr. Jason Perepelkin.

Your completion of this questionnaire constitutes consent for the researchers to use the data for the purpose of conducting the study, as this study has received exempt status from the University of Saskatchewan Behavioural Research Ethics Board (BEH 17-439). Should you have any questions regarding your rights as a participant in this study you may call the Ethics Office at the University of Saskatchewan (306-966-2084).

Thank you in advance,

Jason Perepelkin, PhD
Associate Professor
College of Pharmacy & Nutrition
University of Saskatchewan
(306) 966-6992
jason.perepelkin@usask.ca

Grant Wilson, MSc
PhD Candidate
College of Pharmacy & Nutrition
University of Saskatchewan

Please check the most appropriate box when answering these questions about your pharmacy's position in the industry.

Our business objectives are driven primarily by patient satisfaction:

- ☐ To No Extent
- ☐ To A Small Extent
- ☐ To A Moderate Extent
- ☐ To A Considerable Extent
- ☐ To A Great Extent
- ☐ Unknown

Our strategy for competitive advantage is based on our understanding of patients' needs:

- ☐ To No Extent
- ☐ To A Small Extent
- ☐

<https://login.qualtrics.com/ControlPanel/Ajax.php?action=GetSurveyPrintPreview>

1/15

To A Moderate Extent

- ☐ To A Considerable Extent
- ☐ To A Great Extent
- ☐ Unknown

Our business strategies are driven by our beliefs about how we can create greater value for patients:

- ☐ To No Extent
- ☐ To A Small Extent
- ☐ To A Moderate Extent
- ☐ To A Considerable Extent
- ☐ To A Great Extent
- ☐ Unknown

We measure patient satisfaction frequently:

- ☐ To No Extent
- ☐ To A Small Extent
- ☐ To A Moderate Extent
- ☐ To A Considerable Extent
- ☐ To A Great Extent
- ☐ Unknown

All organizational functions (in you pharmacy/organization, e.g. dispensary, store front, etc.) share information concerning competitors' strategies:

- ☐ To No Extent
- ☐ To A Small Extent
- ☐ To A Moderate Extent
- ☐ To A Considerable Extent
- ☐ To A Great Extent
- ☐ Unknown

We rapidly respond to competitive actions that threaten us:

- ☐ To No Extent
- ☐ To A Small Extent
- ☐ To A Moderate Extent
- ☐ To A Considerable Extent
- ☐ To A Great Extent
- ☐ Unknown

Top managers regularly discuss competitors' strengths and strategies:

- ☐ To No Extent
- ☐ To A Small Extent
- ☐ To A Moderate Extent
- ☐ To A Considerable Extent
- ☐ To A Great Extent
- ☐ Unknown

We target patients where we have an opportunity for competitive advantage:

- ☐ To No Extent
- ☐ To A Small Extent
- ☐ To A Moderate Extent
- ☐ To A Considerable Extent
- ☐ To A Great Extent
- ☐ Unknown

We communicate information about our successful and unsuccessful patient experiences across all organizational functions:

- ☐ To No Extent
- ☐ To A Small Extent
- ☐ To A Moderate Extent
- ☐ To A Considerable Extent
- ☐ To A Great Extent
- ☐ Unknown

All organizational functions are integrated in serving the needs of our target markets:

- ☐ To No Extent
- ☐ To A Small Extent
- ☐ To A Moderate Extent
- ☐ To A Considerable Extent
- ☐ To A Great Extent
- ☐ Unknown

All organizational functions understand how everyone in our organization can contribute to creating patient value:

- ☐ To No Extent
- ☐ To A Small Extent

- ☐ To A Moderate Extent
- ☐ To A Considerable Extent
- ☐ To A Great Extent
- ☐ Unknown

We LIMIT resource sharing with other organizational units:

- ☐ To No Extent
- ☐ To A Small Extent
- ☐ To A Moderate Extent
- ☐ To A Considerable Extent
- ☐ To A Great Extent
- ☐ Unknown

Please check the most appropriate box when answering these questions about your pharmacy's organizational practices.

Our pharmacy takes action in anticipation of future market conditions:

- ☐ Strongly Disagree
- ☐ Disagree
- ☐ Neutral
- ☐ Agree
- ☐ Strongly Agree
- ☐ Unknown

We try to shape our business environment to enhance our presence in the market place:

- ☐ Strongly Disagree
- ☐ Disagree
- ☐ Neutral
- ☐ Agree
- ☐ Strongly Agree
- ☐ Unknown

Because market conditions are changing, we continually seek out new opportunities:

- ☐ Strongly Disagree
- ☐ Disagree
- ☐ Neutral
- ☐ Agree

- ☐ Strongly Agree
- ☐ Unknown

Our pharmacy is known as an innovator among pharmacies in our area:

- ☐ Strongly Disagree
- ☐ Disagree
- ☐ Neutral
- ☐ Agree
- ☐ Strongly Agree
- ☐ Unknown

We promote new and innovative services in our pharmacy:

- ☐ Strongly Disagree
- ☐ Disagree
- ☐ Neutral
- ☐ Agree
- ☐ Strongly Agree
- ☐ Unknown

Our pharmacy provides leadership in developing new services:

- ☐ Strongly Disagree
- ☐ Disagree
- ☐ Neutral
- ☐ Agree
- ☐ Strongly Agree
- ☐ Unknown

Taking gambles is part of our strategy for success:

- ☐ Strongly Disagree
- ☐ Disagree
- ☐ Neutral
- ☐ Agree
- ☐ Strongly Agree
- ☐ Unknown

We take above average risks in our business:

- ☒ Strongly Disagree
- ☐ Disagree
- ☐ Neutral
- ☐ Agree
- ☐ Strongly Agree
- ☐ Unknown

Taking chances is an element of our business strategy:

- ☐ Strongly Disagree
- ☐ Disagree
- ☐ Neutral
- ☐ Agree
- ☐ Strongly Agree
- ☐ Unknown

New service ideas suggested by employees are acted upon by decision-makers:

- ☐ Strongly Disagree
- ☐ Disagree
- ☐ Neutral
- ☐ Agree
- ☐ Strongly Agree
- ☐ Unknown

Management approves of independent activity by employees to develop new services:

- ☐ Strongly Disagree
- ☐ Disagree
- ☐ Neutral
- ☐ Agree
- ☐ Strongly Agree
- ☐ Unknown

Identifying new business opportunities is the concern of all employees:

- ☐ Strongly Disagree
- ☐ Disagree
- ☐ Neutral
- ☐ Agree
- ☐ Strongly Agree

☐ Unknown

We directly challenge our competitors:

- ☐ Strongly Disagree
- ☐ Disagree
- ☐ Neutral
- ☐ Agree
- ☐ Strongly Agree
- ☐ Unknown

We are responsive to maneuvers of our competitors:

- ☐ Strongly Disagree
- ☐ Disagree
- ☐ Neutral
- ☐ Agree
- ☐ Strongly Agree
- ☐ Unknown

Our actions toward competitors can be termed aggressive:

- ☐ Strongly Disagree
- ☐ Disagree
- ☐ Neutral
- ☐ Agree
- ☐ Strongly Agree
- ☐ Unknown

We consider ourselves as having high motivation toward work:

- ☐ Strongly Disagree
- ☐ Disagree
- ☐ Neutral
- ☐ Agree
- ☐ Strongly Agree
- ☐ Unknown

Our employees are a group of hard working individuals:

- ☐ Strongly Disagree

- ☐ Disagree
- ☐ Neutral
- ☐ Agree
- ☐ Strongly Agree
- ☐ Unknown

At our pharmacy, we are **NOT** very ambitious about our work:

- ☐ Strongly Disagree
- ☐ Disagree
- ☐ Neutral
- ☐ Agree
- ☐ Strongly Agree
- ☐ Unknown

Please indicate your pharmacy's performance relative to competing pharmacies based on its:

Ability to reduce medication-related harmful events

- ☐ Very Poor
- ☐ Poor
- ☐ Average
- ☐ Good
- ☐ Very Good
- ☐ Unknown

Successful therapeutic interventions

- ☐ Very Poor
- ☐ Poor
- ☐ Average
- ☐ Good
- ☐ Very Good
- ☐ Unknown

Prescription filling accuracy

- ☐ Very Poor
- ☐ Poor
- ☐ Average

- ☒ Good
- ☐ Very Good
- ☐ Unknown

Understanding new drugs and therapies

- ☐ Very Poor
- ☐ Poor
- ☐ Average
- ☐ Good
- ☐ Very Good
- ☐ Unknown

Patient counselling

- ☐ Very Poor
- ☐ Poor
- ☐ Average
- ☐ Good
- ☐ Very Good
- ☐ Unknown

Overall quality of care

- ☐ Very Poor
- ☐ Poor
- ☐ Average
- ☐ Good
- ☐ Very Good
- ☐ Unknown

Service quality

- ☐ Very Poor
- ☐ Poor
- ☐ Average
- ☐ Good
- ☐ Very Good
- ☐ Unknown

Delivery of expanded services

- ☐ Very Poor
- ☐ Poor
- ☐ Average
- ☐ Good
- ☐ Very Good
- ☐ Unknown

Value-added services (e.g. medication synchronization)

- ☐ Very Poor
- ☐ Poor
- ☐ Average
- ☐ Good
- ☐ Very Good
- ☐ Unknown

Management of supplies and inventory

- ☐ Very Poor
- ☐ Poor
- ☐ Average
- ☐ Good
- ☐ Very Good
- ☐ Unknown

Workflow efficiency

- ☐ Very Poor
- ☐ Poor
- ☐ Average
- ☐ Good
- ☐ Very Good
- ☐ Unknown

Prescription dispensing efficiency

- ☐ Very Poor
- ☐ Poor
- ☐ Average
- ☐ Good

- ☒ Very Good
- ☐ Unknown

Staffing ratios

- ☐ Very Poor
- ☐ Poor
- ☐ Average
- ☐ Good
- ☐ Very Good
- ☐ Unknown

Please indicate your pharmacy's performance relative to competitors based on:

Prescription volume

- ☐ Very Poor
- ☐ Poor
- ☐ Average
- ☐ Good
- ☐ Very Good
- ☐ Unknown

Revenues

- ☐ Very Poor
- ☐ Poor
- ☐ Average
- ☐ Good
- ☐ Very Good
- ☐ Unknown

Margins

- ☐ Very Poor
- ☐ Poor
- ☐ Average
- ☐ Good
- ☐ Very Good
- ☐ Unknown

Earnings

- ☐ Very Poor
- ☐ Poor
- ☐ Average
- ☐ Good
- ☐ Very Good
- ☐ Unknown

Return on investment

- ☐ Very Poor
- ☐ Poor
- ☐ Average
- ☐ Good
- ☐ Very Good
- ☐ Unknown

Please check the most appropriate box when answering these questions about your pharmacy:

We have implemented the provincially-approved expanded pharmacy services with public funding

- ☐ To No Extent
- ☐ To Some Extent
- ☐ To A Moderate Extent
- ☐ To A Considerable Extent
- ☐ To A Great Extent
- ☐ Unknown

We plan to implement additional provincially-approved expanded services with public funding

- ☐ To No Extent
- ☐ To Some Extent
- ☐ To A Moderate Extent
- ☐ To A Considerable Extent
- ☐ To A Great Extent
- ☐ Unknown

We have implemented provincially-approved expanded services without public funding

- ☐ To No Extent
- ☐ To Some Extent
- ☐ To A Moderate Extent
- ☐ To A Considerable Extent
- ☐ To A Great Extent
- ☐ Unknown

We plan to implement additional provincially-approved expanded services without public funding

- ☐ To No Extent
- ☐ To Some Extent
- ☐ To A Moderate Extent
- ☐ To A Considerable Extent
- ☐ To A Great Extent
- ☐ Unknown

In the past year, we have offered new product innovations

- ☐ To No Extent
- ☐ To Some Extent
- ☐ To A Moderate Extent
- ☐ To A Considerable Extent
- ☐ To A Great Extent
- ☐ Unknown

In the past year, we have offered new service innovations

- ☐ To No Extent
- ☐ To Some Extent
- ☐ To A Moderate Extent
- ☐ To A Considerable Extent
- ☐ To A Great Extent
- ☐ Unknown

In the coming year, we plan to offer new product innovations

- ☐ To No Extent
- ☐ To Some Extent
- ☐ To A Moderate Extent
- ☐ To A Considerable Extent
- ☐ To A Great Extent

☐ Unknown

In the coming year, we plan to offer service innovations

- ☐ To No Extent
- ☐ To Some Extent
- ☐ To A Moderate Extent
- ☐ To A Considerable Extent
- ☐ To A Great Extent
- ☐ Unknown

Please indicate all of the Saskatchewan-permitted expanded services that your pharmacy offers:

- | | | |
|---|--|---|
| <input type="checkbox"/> Prescribe in a collaborative practice setting/agreement | <input type="checkbox"/> Make therapeutic substitutions | <input type="checkbox"/> Inject vaccines |
| <input type="checkbox"/> Prescribe for minor ailments/conditions | <input type="checkbox"/> Change drug dosage, formulation, regiment, etc. | <input type="checkbox"/> Inject travel vaccines |
| <input type="checkbox"/> Prescribe in an emergency | <input type="checkbox"/> Renew/extend prescription for continuing care | <input type="checkbox"/> Inject influenza vaccines |
| <input type="checkbox"/> Adapt/manage prescriptions independently in a collaborative practice | <input type="checkbox"/> Inject any drug or vaccine | <input type="checkbox"/> Regulated pharmacy technicians |

Please check the box that best describes your role:

Owner	Owner/Manager	Manager	Staff Pharmacist	Consultant	Other
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please specify your educational background:

Please check the box that best describes your pharmacy:

- ☐ Independent
- ☐ Franchise
- ☐ Chain
- ☐ Grocery/Mass Merchandiser

Please indicate how many prescriptions your pharmacy fills on a monthly basis:

Please indicate how many pharmacists your pharmacy employs:

Please indicate how many pharmacy technicians your pharmacy employs:

Please indicate the number of years your pharmacy has been in business:

Please provide any additional comments or concerns about the questions asked. In addition, you can provide suggestions for the researchers.

Thank you for taking the time to complete this questionnaire!

APPENDIX 14

Western Canadian Study Initial E-mail (Saskatchewan)

Dear << NAME >>,

Your contact information was given to us by the Jeana Wendel (Registrar) and Ray Joubert (Associate Registrar) of the Saskatchewan College of Pharmacy Professionals. You likely received a similar e-mail in 2015 for our pilot study. If you completed the previous questionnaire, thank you for your time and insight. Whether or not you participated in our previous study, we encourage you to complete this questionnaire. This study, undertaken at the University of Saskatchewan's College of Pharmacy & Nutrition, explores the current operational practices of western Canadian pharmacies. Your participation is extremely important! Please follow the link below to complete the questionnaire.

<https://goo.gl/7D5s9T>

As a token of our appreciation for your participation, if you would like, the information obtained from you and other participants in the study will be aggregated and sent to your pharmacy. More information about this study, including confidentiality and the ethics exemption, can be found by visiting the above link.

Thank you in advance for your participation!

Jason Perepelkin, PhD
Associate Professor
jason.perepelkin@usask.ca

Grant Wilson, MSc
PhD Student
grant.wilson@usask.ca

APPENDIX 15

Western Canadian Study Initial Postcard (Alberta)

Dear <NAME>,

Your contact information was obtained from the Alberta College of Pharmacists' website. This study, undertaken at the University of Saskatchewan's College of Pharmacy and Nutrition, seeks to understand the current operational practices of Western Canadian pharmacies. Your participation is extremely important! The questionnaire can be found by visiting the link below.

goo.gl/16C1fM

As a token of our appreciation for your participation, if you would like, the information obtained from you and other participants in the study will be aggregated and sent to your pharmacy. More information about this study, including confidentiality and the ethics exemption, can be found by visiting the above link.

Thank you in advance for your participation!

Jason Perepelkin, PhD
Associate Professor
jason.perepelkin@usask.ca

Grant Wilson, MSc
PhD Candidate
grant.wilson@usask.ca



NAME
ADDRESS
CITY, PROVINCE, POSTAL

goo.gl/16C1fM



APPENDIX 16

Western Canadian Study Reminder E-mail (Saskatchewan)

Dear <<NAME>>,

You recently received an e-mail request to participate in our study of the current operational practices of western Canadian pharmacies. If you have already completed the questionnaire, thank you for your participation. If you have not yet completed the questionnaire, but intended to do so, please follow the link below.

<https://goo.gl/7D5s9T>

Your participation and insight is extremely important, thank you in advance!

Jason Perepelkin, PhD
Associate Professor
jason.perepelkin@usask.ca

Grant Wilson, MSc
PhD Student
grant.wilson@usask.ca

APPENDIX 17

Western Canadian Study Reminder Postcard (Alberta)

Dear <NAME>,

You recently received a request to participate in our study of the current operational practices of Western Canadian pharmacies. If you have already completed the questionnaire, thank you for your participation. If you have not yet completed the questionnaire, but intend to do so, please follow the link below.

goo.gl/16C1fM

Your participation and insight is extremely important, thank you in advance!

Jason Perepelkin, PhD Associate Professor jason.perepelkin@usask.ca	Grant Wilson, MSc PhD Candidate grant.wilson@usask.ca
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