Market-Related Capabilities of Ontario Meat Processing Firms in a Regulated Environment

by

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ABSTRACT

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Historically, competitiveness in agri-food industries in Canada has been largely discussed using traditional economics-based approaches looking at market-level issues. Similarly, reports critical of supply management regulations in the Canadian meat processing industry have been largely based on opinion or ad hoc case studies and on market-level impacts that result from production quotas and price controls. Because these reports focus on issues at the market-level, the way that firms conduct business in supply-managed environments is not fully understood. The objective of this research was to apply several management approaches to understanding firm-level activities and to describe capabilities firms use to compete in three specific regulatory environments: firms using no supply-managed inputs, firms using only supply-managed inputs; and, firms using inputs from both regulatory environments. The meat processing industry in Ontario was chosen for study because firms are found in all three regulatory environments. This qualitative research used a multiple case design (Yin, 2009) and collected data from key industry contacts, from intensive interviews with managers of meat processing firms in three regulatory contexts, and from data from firm websites. The evidence collected suggests that the way managers view threats and opportunities in the external environment varies perhaps due to the way that managers think about the work of the firm, the way they approach competition, or their assessment of general and specific regulatory environments. All managers, however, described a lack of predictability in the industry environment and scarce time resources as key concerns. Evidence suggests that the general regulatory environment was a greater concern for managers than was the specific supply-managed environment. In addition, supply management regulations may create value for some meat processors by increasing predictability and saving time resources. The results describe ten market-related capabilities used by meat processing firms in the general regulatory environment; purchasing, industry knowledge and time-related capabilities may differ for firms in specific, supply-managed regulatory environments. A new framework is developed to extend our understanding of how firms in specific regulatory environments may use market-related capabilities to compete. Recommendations are discussed for firm managers, policy makers, and marketing boards.
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# Table of Contents

CHAPTER ONE - INTRODUCTION, PROBLEMS AND OBJECTIVES ........................................ 1

1.1 Introduction.................................................................................................................. 1
1.2 Background .................................................................................................................. 7
  1.2.1 The Market and Regulatory Policies Supporting Supply Management .................. 7
  1.2.2 Managerial Problems ............................................................................................. 8
1.3 Content and Organization of the Thesis ...................................................................... 11

CHAPTER TWO - LITERATURE REVIEW ...................................................................... 14

2.1 Introduction ................................................................................................................ 14
2.2 Management Theories and Firm Success .................................................................... 15
  2.2.1 Resource-Based Theory, External Environments, and Firm Competitiveness .......... 17
  2.2.2 Capabilities Theory, External Environments, and Firm Competitiveness .......... 22
  2.2.3 Stakeholder Theory, External Environments and Firm Competitiveness .......... 31
  2.2.4 Theoretical Perspectives About How Firms May Compete in Supply-Managed Environments .......................................................... 35
2.3 Management Theory and Food Manufacturing Industry Competitiveness ............... 37
  2.3.1 Literature About Food Processing Industry in Canada ..................................... 37
  2.3.2 Competitiveness and Capabilities in Food Processing Industry ...................... 40
2.4 Policies Supporting Supply Management in Food Manufacturing Industry .............. 43
  2.4.1 Definition of supply management ....................................................................... 43
  2.4.2 Narrative of supply management ....................................................................... 46
  2.4.3 Debate about supply management ..................................................................... 46
  2.4.4 Discussion of supply management .................................................................... 51
  2.4.5 Supply Management and Ontario Meat Processing Firms ................................ 55
2.5 Chapter Summary ...................................................................................................... 58

CHAPTER THREE - RESEARCH DESIGN .................................................................. 60

3.1 Introduction ............................................................................................................... 60
3.2 Research Philosophy and Approach ......................................................................... 60
3.3 Qualitative Approach to Research .......................................................................... 62
  3.3.1 Case Study Research .......................................................................................... 64
# Table of Contents

5.4.3 For Meat Processing Firms ................................................................................................................. 179
5.5 Limitations .............................................................................................................................................. 180
5.6 Suggestions for Further Research .......................................................................................................... 181
REFERENCES ............................................................................................................................................... 184

Appendix A - Non-Academic Sources of Information used in Literature Review ...................... 203
Appendix B - Forty Management and Organization Theories .............................................................. 208

Section C1. Introduction .......................................................................................................................... 215
Section C2. Situating the Ontario Meat Processing Industry ................................................................. 217
- Ontario Industry, Size and Distribution ......................................................................................... 219
- Turkey Industry .................................................................................................................................. 221
- Pork Industry ..................................................................................................................................... 223
Section C3. Assessment of Competitive Environments ............................................................................. 227
- Strategic Tools for Managers ............................................................................................................. 227
- Analysis of General External Environment ..................................................................................... 230
- Analysis of Industry Environment .................................................................................................. 246
- External Stakeholder Analysis ........................................................................................................ 258
Section C4. Summary & Relevance of Assessments ................................................................................. 264

Appendix D - Consumer Price Index, Raw Materials and Retail Price Information .................. 267
Appendix E - Interview Protocol ............................................................................................................... 275
Appendix F - Case Research Method, Comparison of Two Approaches .................................... 276
Appendix G – Description of Cases in Study ......................................................................................... 278
List of Tables

Table 2.1. Comparing Theoretical Perspectives about Firm-Level Competitiveness in Supply Managed Environments.

Table 2.2. Search Results for Scholarly Articles about Competitiveness and Capabilities (all years, peer-reviewed only)

Table 2.3. Arguments Supportive of Supply Management with Economic and Management Perspectives.

Table 2.4. Arguments Critical of Supply Management with Economic and Management Perspectives

Table 3.1. Theoretical Contexts and Research Goals for Case Research Method

Table 3.2. Differences Between Two Types of Theory Building

Table 3.3. Case Study Method Concerns and Responses

Table 3.4. Evaluative Criteria for Case Study Research

Table 3.5. Food and Meat Processing Plants in Ontario and Canada by Firm Size, June-December, 2014.


Table 4.1. Summary of Cases in Study and Plants in Ontario and Canada.

Table 4.2. Summary of Theme #1: Framing.

Table 4.3 Firm capabilities related to INPUT stage of value chain.

Table 4.4. Firm capabilities related to TRANSFORMATION stage of value chain.

Table 4.5. Firm capabilities related to OUTPUT stage of value chain.

Table 4.6. Firm capabilities related to SUPPORT activities in value chain.

Table 4.7. Propositions and Results.

Table 5.1. Market-related Capabilities of Firms Suggested by Evidence.
Table A1. Organizations used as Information Sources and Their Mission.

Table A2. National and Provincial Agricultural Product Marketing Agencies and Industry Associations relevant to Turkey and Pork in Canada and Ontario.

Table B1. Forty Management and Organization Theories.

Table C1. Number of Provincially Licensed Meat Processing Plants in Ontario, by Category.

Table C2. Differences Between Marketing of Turkey and Marketing of Chicken in Canada.

Table C3. Strategic Assessment Tools Used by Managers to Understand Firm Environments.


Table C5. Select Statistics for Turkey Production in Canada and Ontario, 1974 to 2013.

Table F1. Comparing Two Approaches of Case Research Method.
List of Figures

Figure 1.1. Framing and Mindset of Managers, Regulatory Environments, and Approach to Competition.

Figure 1.2. Concepts relating to Firm-level Competitiveness.

Figure 3.1. Case Study Method according to Yin (2009, p. 57).

Figure 3.2. Value Chain of Firm (Porter & Millar, 1985).

Figure 3.3. Model of Value Chain and Regulatory Context with Supply-Management.

Figure 3.4. Multiple Case Design in this Research based on work of Yin, (2009, p. 46).

Figure 3.5. Situating Turkey and Pork Processing Industry Groups in the Food Manufacturing Sub-Sector.

Figure 4.1. Steps in Analysis

Figure 4.2. Framework linking Firm Capabilities with the Firm Value Chain.

Figure 4.3. Themes arising from Analysis.

Figure 4.4. Themes Related to Framing of Regulatory Environment.

Figure 4.5. Themes Related to Framing the Approach to Competition.

Figure 4.6. Themes About Firm Capabilities in the Value Chain.

Figure D1. Consumer Price Index by Food Categories (Annual Sum, Canada).

Figure D2. Consumer Price Index by Food Categories (Annual Sum, Ontario).

Figure D3. Consumer Price Index for Food and Meat Categories (Annual Sum, Canada).

Figure D4. Consumer Price Index for food and Meat Categories, 2010-2014 (Annual Sum, Ontario).

Figure D5. Raw Materials Price Index Using North American Product Classification System (NAPCS), 2010-2014 (Annual Sum, Canada).

Figure D6. Raw Materials Price Index for Animals and Animal Product Categories, by North American Product Classification System (NAPCS), 2000-2014 (Annual Sum, Canada).
Figure D7. Retail Prices for Food and Selected Protein Alternatives in Canada, 2000-2014, Annual Average (in dollars).

Figure E1. Final Interview Protocol.

Figure G1. Interview Method for Cases in Study.

Figure G2. Input Type.

Figure G3. Type of Meat Processing License.

Figure G4. Type of Processing Plant.

Figure G5. Firm Ownership.

Figure G6. Firm Size.

Figure G7. Legal Structure.

Figure G8. Social Media Presence.

Figure G9. Age of Firm.

Figure G10. Firm Distance from Guelph
Appendices

Appendix A - Non-Academic Sources of Information used in Literature Review

Appendix B - Forty Management and Organization Theories

Appendix C – Analysis and Context of Ontario Meat Processing Industry

Appendix D - Consumer Price Index, Raw Materials and Retail Price Information

Appendix E - Interview Protocol

Appendix F - Case Research Method, Comparison of Two Approaches

Appendix G - Summary of Attributes for Cases in Study
CHAPTER ONE - INTRODUCTION, PROBLEMS AND OBJECTIVES

1.1 Introduction

Successful firms are important to owners, managers, employees, industries and governments. When firms are not successful, many stakeholders experience losses including possibly competitor firms and society.

In the last twenty-five years, a number of reports have been published that examine the competitiveness of Canada’s food processing industry\(^1\). Some examples of institutions publishing these reports include, but are not limited to, industry associations, the Conference Board of Canada, the Fraser Institute, and the CD Howe Institute. In most cases, these reports used a micro-economics, market-level perspective or analytical approach, albeit sometimes incorporating ad hoc case studies, in order to support their analyses and conclusions. As a result of using micro-economics based analytical approaches, these assessments typically comment on market conditions or industry structure. Further, this focus on market conditions or industry structure shapes the nature of the conclusions and recommendations about the factors considered important to competitiveness. Due to their analytical perspective, the conclusions of these reports do not sufficiently or completely describe other considerations that may affect the competitiveness of individual firms in an industry.

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\(^1\) The meat processing industry refers to what is officially a subsector of the food manufacturing subsector in Canada according to the North American Industrial Classification System; the meat processing subsector comprises firms whose primary activities are rendering, animal slaughtering, and/or meat processing (Statistics Canada, 2012b).
This same argument might be applied to reports critical of government-enacted regulations affecting meat processing firms in Canada. The focus of reports critical of the general regulatory environment mostly apply microeconomics based analyses. This approach is particularly apparent in reports discussing the impact of supply management policies on the competitiveness of the Canadian meat processing industry. Supply management policies are enacted by government in Canada and are administered by marketing boards that regulate production and marketing at the farm-level using quotas to limit the supply of product that is produced for the domestic market and set product prices; these policies also regulate the amount of imported product that can be brought into the country and sold domestically. National production quotas are divided among the provinces and are subsequently divided among farm-level producers in the province. Analyses usually discuss how prices are set by “estimating” supply and demand, but prices are “managed” using production “marketing” and import quotas. Quotas may indeed constrain production, but they do not sufficiently or completely address how these policies may impact activities at the firm-level.

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2 In this thesis, general regulations will refer to a range of government-enacted policies that affect firms across all sectors (both supply managed and non-supply managed) in the meat processing industry; this terms would include regulations that affect all firms (for example, Canada Revenue Agency) as well as regulations that apply to all meat processing firms (for example, food safety regulations, labelling regulations) and regulations specific to one sector or type of meat processing firm (for example, supply management regulations). The terms regulations and policies are used interchangeably in this thesis. The use of supply management regulations, specific regulations, or policies supporting supply management will refer to the specific set of policies that apply to firms processing supply-managed inputs. The term standards is distinct from regulations or policies because it relates to industry-enacted principles or benchmarks rather than those rules that originate with government and are enforced by the government or its agents.

3 The term environment describes the industry environment outside the firm; the terms general regulatory environment and specific regulatory environment delineate differences in level of detail. For example, the general regulatory environment is broad and includes all possible types of regulations that would apply to firms while the specific regulatory environment is narrower and refers in this thesis to the environment that relates to policies supporting supply management. The term context is used to describe the background of firms in this research that are all located in the same general regulatory environment. For example, a firm operates in the general regulatory environment of the meat processing industry but in the supply-managed context where specific supply management regulations apply.
During the last twenty-five years, there has also been a growing body of scholarly work in strategic management that examines firm activities. It has been suggested that the concept of *firm capabilities* (Amit & Shoemaker, 1993) could explain performance differences between firms, particularly for firms operating in similar industries with similar resources; further, the concept of *dynamic capabilities* (Teece, Pisano & Shuen, 1997) is suggested to explain how firms modify their strategies over time in ever-shifting markets. Unlike intangible resources (for example, reputation assets), the marketing discipline has approached capabilities as processes or patterns of skill and knowledge (Morgan, 2012) that help firms use their resources and execute firm strategy. Capabilities are discussed in both marketing and strategic management literature and are sometimes categorized or approached differently. However, what is common is that capabilities may, in part, explain how firms in similar external environments or firms with similar resources could manage to perform differently than other firms. While this body of work about capabilities grows, it remains a practical challenge for firm managers to make decisions about what firm capabilities they must build to address opportunities and threats.

This thesis is focused on describing capabilities related to markets in the meat processing industry of Ontario where firms may or may not process inputs from a specific regulatory environment that may be characterized by policies supporting supply management. Extant literature about the impact of supply management policies has not addressed firm-level effects nor has it provided a framework to explain how the specific regulatory environment may impact activities of firms in the middle of the value chain.

One of the key contributions of this research is to demonstrate how the application of management approaches can extend our understanding of how firms may use capabilities to succeed in specific regulatory environments. This thesis will demonstrate how the application of
threads from various strategic management approaches may provide additional understanding about the impact of supply management regulations on the success of Ontario meat processing firms and help describe how these firms use capabilities to create value.

To better describe capabilities in specific regulated environments, this thesis will propose the use of three management perspectives: Resource-Based Theory (Penrose, 1972; Barney, 1991); Capabilities Theory (Day, 1994; Teece, Pisano & Shuen, 1997; Morgan, 2012); and Stakeholder Theory (Freeman, 1984). These theories are selected because of their usefulness in examining firm-level decisions and firm responses to threats and opportunities in the external environment. Drawing on Resource-Based Theory and Capabilities Theory, and to a lesser extent Stakeholder Theory, the researcher explores evidence provided by managers of meat processing firms in Ontario to develop a framework to describe the firm capabilities used to compete in an industry context where some firms operate with policies that support supply management and others do not. In so doing, the researcher contributes to the literature and considers capabilities of firms with respect to their specific regulatory environment.

Management theories—Resource-Based Theory and Capabilities Theory—are used in this research to prompt different perspectives that may help us think about the different ways that industry managers may assess their external environment. In so doing, the researcher is able to demonstrate that different perspectives may be useful when considering the strategies firm managers use to succeed. Further, different perspectives may help us understand how managers may respond to opportunities and threats. Last, different perspectives may give us new knowledge about how some managers may use capabilities to compete under public policies that support supply management.
The meat processing firms that participated in this research had each succeeded in a general regulatory environment containing a range of government-enacted regulations that apply to many stages of the firm value chain; that is, some meat processing firms were operating in a specific regulatory environment where policies supporting supply management imposed an additional set of government-enacted regulations. Because of the differences in specific regulatory environment that exist in the industry, a study in the meat processing industry offered an opportunity to describe the capabilities that firms use in these environments and contribute to the management literature about capabilities in specific regulatory environments where policies supporting supply management apply.

The conceptual framework is developed (and illustrated in Figure 1.1) using evidence from case study research and approaches from three management theories. This conceptual framework identifies that framing—the way one approaches assessment—may be linked to: the mindset of managers and the way managers approach the work of the firm; the approach that firms use to compete; and, the way that threats and opportunities in the general regulatory environment are assessed. The description of capabilities of meat processing firms in this thesis suggests that firms compete using a variety of capabilities, but particularly valuable may those that may help firms deal with a lack of predictability or those that can help to increase predictability in their activities. For some firms, policies that support supply management may represent an opportunity for a degree predictability in their external environment.
Figure 1.1. Framing and Mindset of Managers, Regulatory Environments, and Approach to Competition.

This figure illustrates the central idea of framing and suggests other themes that may be related to framing that are suggested by this research.

A second contribution of this research relates to the literature about public policies supporting supply management that are an often criticized component in the general regulatory environment for some meat processing firms in Canada. The evidence in this research suggests that not all firm managers in the case study meat processing firms share the same view of their general or specific regulatory environment and this may affect how they approach threats and opportunities. This advances our understanding about how firms may operate in environments with supply management policies and suggests that managers may succeed by developing capabilities that help them compete in these specific regulatory environments.

The current context in Canada increases the importance of this second contribution. Neither the Comprehensive Economic and Trade Deal (CETA) between Canada and the European Union signed in 2013 or the Trans-Pacific Partnership (TPP) trade agreement signed in 2015 have been ratified at the time of this writing, but both agreements have placed renewed
attention on the regulatory framework simply referred to as supply management (Chase, 2015; Mas, 2013; Mufson, 2015). It is presently clear that there are reforms suggested to the policies supporting supply management (particularly with respect to the TPP and foreign imports for a number of agricultural sectors), however, what is unclear is how reforms that affect supply management may impact Ontario meat processing firms, particularly those that compete in supply-managed environments, such as processors of chicken or turkey. Because there is incomplete information about how policies supporting supply management impact firm competitiveness, firm managers and policy makers also have incomplete information with which to make decisions when/if recent trade deals are ratified. This presents a practical challenge for both business and government.

1.2 Background

1.2.1 The Market and Regulatory Policies Supporting Supply Management

The food manufacturing subsector in Canada is arguably among the most regulated in manufacturing. Government-enacted regulations cover the input stage of the value chain, for example, on-farm animal welfare and antibiotic use and transportation to the abattoir. Government-enacted regulations also apply at the transformation stage of the value chain including rules about the physical design of the processing plant and the handling of carcasses and food safety protocols and inspections. Government-enacted regulations also cover the output stage of the value chain, for example, the labelling of ingredients for consumers or retail customers.

In addition, for certain agricultural products in Canada, there are also agricultural marketing boards responsible for activities related to the production, pricing and sale of agricultural products. Dairy, turkey, pork, apples and asparagus are just a few examples of
commodities that are regulated by marketing board activity. Most marketing boards are involved in promoting agricultural products and funding research. However, marketing boards also have powers that vary by product, ranging from the ability to negotiate or set prices to the ability to control supply through producer quotas. Marketing boards with the power to manage supply through production quotas have been described as the most restrictive from a regulatory perspective (van Duren & Hansen Sterne, 2015a); this is because limiting the quantity produced for a domestic market and limiting the imports permitted into a domestic market can also affect the price that producers charge for the product at the market-level of analysis. What is not understood at the firm-level, however, is how the impact of quotas that restrict production and support prices may affect firm activities.

1.2.2 Managerial Problems

It is the job of managers to make decisions to ensure firms succeed and remain in business regardless of the firm’s external environment. Managers can only control—or influence strongly—internal factors, however, so they must respond to opportunities and threats in the general industry environment by making decisions about internal factors at the firm-level. Decisions that are made at the firm-level will concern the resources of the firm and include (1) the tangible and intangible assets of the firm and (2) the activities that take place in the firm. Understanding the relationship between internal and external factors, however, is important to managers because the external environment may affect competitiveness at the firm-level. Competitiveness is defined and measured in different ways, however, it is used in its practical sense here to denote firms that are in operation as a business and are a going concern. To clarify further, firms that continue to operate as businesses are continuing to compete and those that are not operating as businesses have ceased to compete. Defining competitiveness in this practical
and simple manner is both suitable and sufficient in this thesis because the central focus of this work is not to judge the degree of competitiveness of firms but to examine the activities they use to remain a going concern.\(^4\)

Ideas about firm-level competitiveness can be presented visually. Figure 1.2 illustrates concepts related to firm-level competitiveness in the external environment of the firm. The way firms achieve firm-level competitiveness can be conceptualized using a series of interconnected ideas discussed next.

**Figure 1.2. Concepts Relating to Firm-level Competitiveness.**

This diagram also shows linkages between firm-level competitiveness and the firm resources (assets and activities) that help firms bring products, services and technology to markets.

**Figure 1.2** illustrates how managers may view the work of the firm with respect to the external environment. At the bottom of Figure 1.2, two resources are necessary so the firm can achieve its goals: first, tangible and intangible *assets* of the firm are required for transformation;

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\(^4\) In this thesis, firms that have been *competitive* may be referred to as *successful* because they have succeeded for a reasonable period of time, although it is understood that these firms may not always remain competitive or successful in the future. The focus here is not competitiveness but the capabilities firms use to compete.
and second, *processes and skills* are required to transform assets into value. Recently, academics, consultants and others have written about these processes and skills (also called *capabilities*) in an effort to understand them, however, scholars are just starting to learn how different external environments may affect these activities. This is particularly true for firms that operate in supply-managed environments where we have little knowledge to describe firm capabilities. Figure 1.2 also shows how the assets and the processes and skills of the firm are used to bring value to markets in the form of products, services and technology. The external environment and the firm assets and activities will all contribute to the costs of the firm in creating this value. In summary, in this conceptualization, both the value offered by firms (in the form of products, services and technology) and the costs borne by the firm (that are in part determined by the external environment) affect the competitiveness of the firm.

This conceptualization of competitiveness can be contrasted with traditional, neo-classical economics approaches. Using the approach illustrated in Figure 1.2, firm-level competitiveness is viewed as a function of the assets, processes and skills managed by the firm and designed to meet threats and opportunities of the external environment rather than primarily as a function of market structure. By focusing on firm capabilities, competitiveness may occur *despite* the external environment and attention can then be paid to differences between firms. Managers use tools to help them identify and assess opportunities and threats in the external environment that they *cannot control*, however, managers also make decisions about the assets, skills and processes that are within *control* of the firm. These assets, processes and skills are ultimately embedded in the varied products and services created at the firm-level and form the strengths and weaknesses of the firm. Thus, a management approach to firm-level competitiveness as illustrated in Figure 1.2 offers an opportunity to explore how firms might
create value for markets and an opportunity to describe the activities a firm uses to create this value in specific regulatory environments.

1.3 Content and Organization of the Thesis

In Chapter Two, a literature review is presented in several sections that addresses the challenge of understanding management approaches to firm success, capabilities and external environments. In the first section of this review, the researcher presents a review of management theories that are useful in explaining firm-level success. In the second section, the researcher focuses on literature that specifically addresses the food manufacturing industry in Canada and work examining the competitiveness and capabilities of firms in this industry. In the third section, the researcher presents a review of literature about the policies supporting supply management. This chapter identifies that little is known about how firms in the meat processing industry succeed, particularly with respect to this specific regulatory environment. This gap relates to the primary research question in this thesis:

- **How can we describe the capabilities that firms use to succeed in specific regulatory environments with or without policies supporting supply management?**

The theoretical objective of this research is:

- **To develop a framework that can help us understand the capabilities used by firms to succeed in specific regulatory environments where supply management may be part of the set of government-enacted regulations.**

Chapter Three addresses the challenge of choosing a suitable method to investigate the research questions in the study. The chapter presents a detailed explanation of the research method and design used in this research. The philosophy of the researcher and her assumptions are described as well as the reasons for choosing a qualitative approach to solving the research
questions and a comparison of two approaches to using case method in research (Eisenhardt & Graebner, 2007; Yin, 2009), particularly in cases where existing theory cannot explain the phenomenon in question. A multiple case study design was used to capture evidence for fourteen cases in three regulatory contexts of Ontario’s meat processing industry. Theoretical replication was used to identify possible firms to interview in each regulatory context where it was expected results may differ; literal replication was used to within each context to identify firms where results were expected to be similar (Yin, 2009). Extensive preparation for data collection by the researcher is described including two pilot studies. Field procedures for conducting semi-structured interviews with upper-level managers in meat processing firms are also described as well as the documentation and use of a case study database during data collection.

Chapter Four addresses the challenge of providing descriptions of the firm capabilities related to marketing used by meat processing firms in Ontario to succeed with respect to their specific regulatory environment. This chapter is detailed and describes the processes used in analysis and presents the results of analysis. This research involved extensive background preparation (in-depth pilot studies, numerous industry organization meetings over a one-year period, and a detailed review assessing the external environment of the Ontario meat processing industry using management tools), one-hour long, intensive interviews with meat processing industry managers, and the use of data from meat processing firm websites. Analysis of data occurred using theme analysis. First, concept maps were used as a tool to organize ideas and to determine when data saturation was achieved. This segment of analysis identifies that although managers have similar ways of framing their external environment, perceptions about policies supporting supply management are varied. In further analysis, coding was used to identify themes about firm capabilities; evidence suggests that ten market-related capabilities are used by
firms and three of these vary for firms in specific regulatory context (supply managed environments). Communicating the results in this chapter was both time-consuming and deliberate. In addition, results were worded to decrease the chance that the identity of any one participant (firm) could be revealed, a difficult challenge given the need to investigate capabilities across a relatively small Ontario meat processing industry and even smaller turkey processing and pork processing industries in Ontario. As a result, quotations are used when possible, however, paraphrasing or combining ideas common across general or specific regulatory contexts was often a necessity.

Chapter Five addresses the challenge of using management perspectives to support a framework that can describe the market-related capabilities of meat processors in Ontario with respect to their specific regulatory context. The chapter discusses the key results of the research according to the theoretical and practical objectives of the research. The chapter also summarizes five contributions to the literature and presents a framework linking the approach of individual managers to their mindset, to their approach to the general regulatory environment, and to their approach to competition. The chapter also offers recommendations for future scholarly research and for policy makers and industry managers. The limitations of this research are also described.

References and Appendices A through G follow next and include: A) a list of non-academic sources of information consulted in this research; B) a list of forty management theories; C) an analysis of the meat processing industry environment in Ontario; D) consumer prices index data for food and meat categories in Canada; E) a copy of the interview protocol used in the semi-structured interviews; F) a comparison of two approaches to case research method; and, G) a summary of the attributes and characteristics for firms in the study.
CHAPTER TWO - LITERATURE REVIEW

2.1 Introduction

The purpose of this chapter is to review scholarly literature about three management theories—Resource-Based Theory, Capabilities Theory, and to a lesser degree Stakeholder Theory—in order to understand how each theory approaches the work of the firm and the firm’s external environment. Although there is a growing lay, business and academic disciplinary interest in food studies and the food industry in general—including, but not limited to, geography, sociology, history, political science, anthropology. However, much of the academic work about competitiveness in the food industry (and food processing, in particular) has been conducted using microeconomic models. This chapter reviews (1) academic literature, specifically management theory that is relevant to firm-level competitiveness and (2) practitioner and policy oriented literature from agency and “think tank” reports. While not part of scholarly literature, these reports make up a large part of a knowledge base that is widely accessible to both policy makers and meat processing industry managers so it is important to include this material in a review. Appendix A summarizes these non-academic organizations that have authored reports about the food industry, food processing and/or supply management.

Section 2.2 reviews three management theories—Resource-Based Theory, Capabilities Theory, and to a lesser extent Stakeholder Theory—that seek to explain how firms compete, particularly when addressing factors in the external environment. Section 2.3 reviews management literature about food and meat processing industry competitiveness and capabilities; section 2.4 reviews literature about policies supporting supply management and identifies key issues for and against supply management policies with respect to meat processing firms in Ontario. There is little research from a management perspective in sections 2.3 and 2.4; this in
itself indicates how little is understood about capabilities in the food and meat processing industries and how little is understood about the impact of supply management policies on the competitiveness of firms in the industry. Section 2.5 provides a chapter summary.

2.2 Management Theories and Firm Success

The term management has a range of definitions depending on whether they are used by practicing managers or academic researchers. For the purposes of this chapter and the academic literature review, the definition of management used to frame this study is “the process of accomplishing organizational mission, strategies, goals, and objectives” (J.A. Miles, 2012, p. 8; italics mine). This definition was selected because it makes sense to both managers and researchers and allows a broad degree of latitude about how the goals of an organization are achieved rather than focusing on “one best way to organize” (Morgan, 1997, p. 26). This definition also emphasizes that there is a decision process underlying the way products, services and technology get from firms to markets; this definition allows firms to respond to the external environment by making decisions related to specific opportunities or threats in the environment. This definition also uses the word process, which incorporates a time element as an important factor; this is important because firms must continue to make successful decisions and meet goals to survive over time. And finally, this definition is general enough for broad use and suitable when using several management theories to examine a problem.

Poggi observed, “a way of seeing is also a way of not seeing” (1965, p. 284) to indicate that any single viewpoint will contain weaknesses in addition to strengths. Similarly, there are
different ways that managers can think about strategy\(^5\) to reach firm goals. There are many strategic management theories that address the way firm deal with the external environment with respect to firm strategy. Mintzberg describes ten approaches to strategic management according to their approach as prescriptive (comprised of the design, planning and positioning schools); describing (comprised of entrepreneurial, cognitive, learning, power, cultural and environmental schools); or configuration (described as an approach that seeks to integrate elements of other schools; Mintzberg et al., 1998, p. 5-6). Examples of approaches include, but are not limited to: those that focus on the importance of the environment in terms of the amount of change in order to decide which mode of management would be optimal (Ansoff, 1988, p. 262) to achieve firm goals; those that judge competitive intensity in an industry environment in an effort to predict future profit potential (Porter, 1979); or, those that examine “forms, processes, strategies, outlooks, and competences” (Selznick, 1996, p. 271) that come from internal and external environmental pressures (Oliver, 1991) in order to understand organizational patterns.

Similarly, theories in the management field each carry a distinct perspective about the work of management and attention is often on differing foci in order to explain firm success. J.A. Miles (2012) reviews forty management theories that: were each a minimum of 10 years old; that were useful in explaining or predicting organizational activities; had implications for practitioners; had generated significant research; and, were considered both classic and current. Appendix B contains a summary of these management theories as well as a brief description, the focus and assumptions for each theory. This list was used, along with input from the thesis advisor, to select theories based on their usefulness in examining firm-level capabilities for firms

\(^5\) As the focus of this research is on strategy at the firm or business level, all references to strategy, unless otherwise noted, are references to “firm-level policies” and concern strategy at the business or firm-level.
in specific regulatory environments. In particular, there was a need to find theories that would help to explain firm-level competitiveness in external environments with specific constraints and help managers understand how firm capabilities may help firms succeed ex ante.

Despite the existence of many approaches to studying strategic management, Mintzberg (Mintzberg et al., 1998) argues each approach is useful to solve particular management problems and that theories “should be used as building blocks…or as ingredients in a stew” (Mintzberg et al., 1998, p. 369). Others have argued that the use of different approaches or metaphors help us see and think in new ways (Morgan, 1997, p. 351) and consider the need for a pluralistic methodology that uses multiple perspectives when examining complex social problems (Van de Ven, 2007, p. 17).

Since there are so many management theories, it was necessary to choose those that would be most useful when examining firm-level competitiveness and firm capabilities in order to determine if supply management has contributed to firm survival or competitiveness. Resource-Based Theory was chosen because of its focus on internal factors, that is, the resources—the assets and activities—of the firm. The related Capabilities Theory was chosen because of its focus on the activities and processes of firms as a critical ingredient in firm-level success. Stakeholder Theory is used to a lesser degree but was chosen because of its focus on value creation for external stakeholders. After the three theories are reviewed, a summary is presented.

2.2.1 Resource-Based Theory, External Environments, and Firm Competitiveness

Resource-Based Theory (RBT) originated with the work of (Penrose, 1972) who considered how firms grow when resources are limited. RBT focuses on the firm resource endowments and power structures that determine the use of those resources in generating rents—
that is, those returns to the firm (Barney, 1991) that are superior to those of competitors. With roots in policy research and central contributions to strategic management (Peteraf, 1993), resources in RBT are viewed as antecedents to firm success (Priem & Butler, 2001); that is, it is posited that firms must control or possess these resources in order to be able to later use them to the firm’s advantage. A major contribution of RBT is that long-lived differences in competitive advantage are not explained by industry factors alone, but also by factors at the firm-level (Peteraf, 1993, p. 186; also Rumelt, 1991). RBT is a well-established theory that has evolved over time and is used in this thesis to examine firm-level resources.

RBT posits that heterogeneity in firm-level resources (Barney, 1991; Peteraf, 1993) explains why firms in the same industry environment can have markedly different performance results in the short term; it is reasoned that resources are not easily mobile and those resources considered sticky cannot be transferred without cost (Priem & Butler, 2001). Because resources are heterogeneously distributed across firms, sustained competitive advantage is achieved by firms who can find ways to gain valuable resources, to acquire rare resources, to organize resources in ways that are hard for others to imitate, and to develop equivalent resources that are not easily substituted (Barney, 1991); these four, core principles of RBT are often referred to as the VRIN (valuable, rare, inimitable and non-substitutable) model.

The role of the manager, according to RBT, is to develop and implement a strategy that ensures firm resources are valuable to customers, rare, and hard to imitate or substitute; Mintzberg (1998) has cited (Wernerfelt, 1984), noting that strategic managers must “balance…the exploitation of existing resources and the development of new ones” (Mintzberg et al., 1998, p. 276). Priem & Butler (2001) and Day (Day, 1994) have argued that capabilities are resources that are difficult for competitors to imitate or acquire and will contribute to
superior firm success in the long term\textsuperscript{6}. Peteraf (Peteraf, 1993) stresses that resources in need are limited in supply (p. 181) and describes a model with four conditions that determine if firms will attain competitive advantage. First, rents “in excess of breakeven” (Peteraf, 1993, p. 180) are earned from the use of resources and are due to resource heterogeneity; it is assumed that resources are not uniformly distributed among firms so resources differ by firm and there will be some durability to rents supported by forces that limit competition for these rents. The second condition in the model stipulates that rents within the firm can be sustained due to the imperfect mobility of the resources; that is, imperfectly mobile resources are assumed to be available to the firm and rents from these resources will benefit the firm. The third condition is that rents are sustained by limits to competition that inhibit substitution or imitation by other firms and imperfect immobility; imperfect immobility of resources has received more focus (Peteraf, 1993, p. 182) and includes the identification of isolating mechanisms (Rumelt, 1984) that protect firms from imitation and the assumption that these mechanisms protect rents “over the longer term” (Peteraf, 1993, p. 182). The fourth condition is that rents earned by the firm are beyond the breakeven point and will benefit the firm. The practical implication of these four conditions is that managers must focus on firm resources and understand how resources can be used to create and sustain competitive advantage.

The limits to competition that support the competitive advantage of firms who have attained a superior position in the market and are earning rents is of particular interest because it considers both the role of internal and external factors that can affect firm resource heterogeneity and firm competitiveness over the long term. Rumelt (1984) examined isolating mechanisms and identified many that could contribute to imperfect immobility of resources. Causal ambiguity is

\textsuperscript{6}Review of the literature relating to capabilities is in Section 2.2.2.
one of these isolating mechanisms and refers to the uncertainty about why firms differ in terms of their efficiency. Peteraf (1993) reviews a variety of isolating mechanisms that have been studied that include “producer learning, buyer switching costs, reputation, buyer search costs, channel crowding, and economies of scale when specialized assets are required” (Rumelt, 1987, p. 183), “size advantages, preferred access to either resources or customers, and/or restrictions on competitors' options” (Ghemawat, 1986, p. 183) and include mechanisms that focus on the process by which the resources were acquired by the firm including “time compression diseconomies, asset mass efficiencies, interconnectedness of asset stocks, asset erosion, and causal ambiguity” (Peteraf, 1993, p. 183; Dierickx & Cool, 1989).

Criticisms of RBT include the focus on resources rather than on core tasks of management (Hatch & Cunliffe, 2006). Some have observed that RBT cannot explain why firms with idiosyncratic core competencies (also termed distinctive competencies; that is, “firm specific strengths that allow a company to…achieve a competitive advantage” per Hill and Jones, 2015) often perform differently even though resource profiles are similar (Furrer, Sudharshan, Howard, & Alexandre, 2008). Concerns have also been raised about the assumed stability of product markets (Priem & Butler, 2001), about resources that are socially complex (Barney, 1991), and about assumptions that external environments are competitive (Furrer et al., 2008; Wernerfelt, 1984). These criticisms highlight the need to understand factors both internal and external to the firm when considering resources, their heterogeneity, and their sustainability over time.

Further study has been recommended in RBT to address the following: the methodological challenges in measurement of intangible resources (Barney, Wright, & Ketchen, 2001) and imprecise definitions of key concepts (Priem & Butler, 2001); a failure to investigate
theory with a dynamic approach (Conner & Prahalad, 1996); and, a failure to explain performance differences between firms that have similar levels of uniqueness, rarity, inimitability and isolation of resources but idiosyncratic core competencies (Furrer et al., 2008).

Assumptions.

Resource-Based Theory is focused on the resources of the firm but often makes implicit assumptions about the firm environment and how it may affect firms. For example, the environment of firms in an industry will influence to some degree which resources are of value, which resources are in short supply, which resources are easy to imitate, and which resources allow the firm to earn sustained rents over time.

Resource-based theory and analysis of firm environments.

RBT has been applied to address aspects of the firm environment and there are some gaps in knowledge in this area. (Lavie, 2006) notes that researchers should consider the contribution to firm success that results from integrating “internal and external sources of competitive advantage” (p. 639) because RBT doesn’t explain environments where firms routinely collaborate with others. (Barney & Clark, 2007) concludes that the skills needed to conduct environmental analysis do not constitute an advantage for one firm over another because firms can rent these skills from consulting firms and these “skill advantages…will typically only be temporary” (p. 45); this observation implicitly assumes skills in building relationships with others or skills important in a specific industry or type of environment are possible to build in the short term but have a short lived usefulness in terms of firm success. (Castanias & Helfat, 2001) asserts that industry-specific skills are important in regulated industries; these scholars also note that research on capabilities has identified that RBT does not address the idea that managers may each view opportunities differently and take actions differently than might others (p. 674). Both
of these findings are important to this research because they suggest that firms in different industries may have developed internal skills and processes specific to that industry.

**Summary of Resource-Based Theory.**

Literature shows that Resource-Based Theory focuses on the resources of the firm as determinants of firm success; the nature of these resources can be influenced by the external environment. Some recent research has looked at intangible resources as a way to explain competitive advantage that persists over time.

To address gaps in knowledge about how firms sense changes in their environment and use this knowledge to help organize their resources (Teece, Pisano & Shuen, 1997), some scholars have focused on investigating the skills and knowledge processes at the firm-level. A recent meta-analysis found that the relationship between resources and firm success is strong but a more detailed understanding of processes is needed (Crook, Ketchen, Combs, & Todd, 2008). Work investigating capabilities is looking at the idea that firms are repositories of capabilities (Kogut & Zander, 1992, p. 396) and the idea that managers should focus efforts on building capabilities based on their expected value ex ante (Makadok, 2001). Work investigating dynamic capabilities is also looking at how firms achieve competitive advantage over time (Teece, 2009), however, this is not the primary purview of this review. In order to examine work in this area, Capabilities Theory—that has roots in RBT—will be discussed next.

2.2.2 Capabilities Theory, External Environments, and Firm Competitiveness

In this section, literature regarding capabilities will be reviewed to establish the importance of capabilities as an ingredient in achieving sustained, superior firm success and competitiveness. The concept of capabilities will be introduced, the debate over definitions of
capabilities will be examined, and the literature about capabilities in the food or meat processing contexts will be reviewed.

**Terminology and concept of capabilities.**

The study of capabilities has been studied from multiple perspectives and by multiple fields of study (for example, strategic management, marketing) so there are a variety of definitions in use and approaches being used. As a result of multiple approaches, and because the concept of capabilities is relatively new, there is a lack of consensus about terminology for the types of *capabilities* being researched. Thus, the word *capabilities* will be used in this literature review without any preceding adjectives (for example, *marketing, dynamic, strategic, relational* or *organizational*) unless it is specifically noted in academic literature being discussed. The capabilities that are of interest in this research are any and all capabilities that are related to how firms bring products, services and technology to markets; these will be called *market-related capabilities* later in the methods and results sections of the thesis. Further, as the interest of this research is to describe the capabilities used by firms to compete in a supply-managed regulatory environment, literature from both strategic management and marketing are used primarily, although not exclusively, in this review particularly because there is no one generally accepted framework used to explain capabilities.

As noted already, several fields of study (for example, marketing, management and organizational behaviour) have examined capabilities used by firms; in most cases, definitions vary for the word *capabilities*. In fact, Barney and Clark (2007) have recently taken the position that the labels around resources and capabilities are less important than the central propositions of RBT that seek to explain the sets of circumstances when firm assets (however labelled) are most likely to be a continued source of sustained competitive advantage (p. 249). This being
stated, this thesis uses a definition similar to Ripollés and Blesa (2008) where the authors paraphrased Day (1994): *Capabilities are the skills and competences that a firm uses to help it to understand changes in the environment as well as those that enable it to operate more competitively in the market place.*

This definition uses the words “skills and competences” because they address the human agency needed to ensure that other types of resources are leveraged for the firm (Barney & Clark, 2007). Some scholars, including Teece, Pisano, & Shuen (1997), Eisenhardt & Martin (2000) and Helfat, Finkelstein, Mitchell, Peteraf, Singh, Teece, & Winter, (2007), include the adjective *dynamic* to indicate that capabilities change and adapt over time; the definition used here captures change without using the term and also suggests that capabilities are the means by which the firm interacts with and responds to its environment. Winter (2003) distinguishes between *dynamic* capabilities and *organizational* capabilities on the basis of breadth, the use of a broader term is preferred because possible interpretations are important in research that is exploratory and descriptive. Morgan notes that capabilities are investigated as coordinated patterns of abilities that become *embedded* in firm routines (Morgan, 2012, p. 106) but this interpretation suggests a time period or conditions necessary for an ability to become a pattern. The use of the words “skills and competences” in the definition, therefore, indicates that capabilities include those skills identified for further development by the firm as well as those capabilities that already have been developed and become a firm routine. This definition gives license to capabilities to exist as concepts in the minds of firm managers even before they become embedded in the firm as routines called capabilities. This definition also specifies both an internal and external focus for successful firms by referencing both the environment of the
firm that affects supply from the firm to a market and the customers who represent the demand from the market.

The concept of capabilities in the strategic management field has roots in Resource-Based Theory (RBT) of the firm (Teece, 2007) but researchers are still trying to build frameworks that explain the processes by which resources are deployed to achieve superior results over time (Morgan, 2012). Amit and Schoemaker (1993) had originally separated the firm’s strategic assets into resources and capabilities; capabilities were suggested as a way to look at the firm-level resources and consider managers’ decisions in a context of complexity, uncertainty and competition.

Scholars interested in capabilities theory have also debated whether capabilities are necessarily distinct from resources, competencies, competences or even dynamic capabilities. Hall (1993) has argued there are difficulties in dealing with many types of intangible resources and posits that resources should be distinguished from capabilities because they are what firms own whereas capabilities are what firms do (p. 607), advocating for a division among capabilities based on the type of asset and the type of competency involved (p. 610). Hill and Jones (2014) have distinguished distinctive competencies as those strengths specific to a firm that allow it to achieve competitive advantage (p. 83) and capabilities as the skills needed to coordinate resources (p. 83) that support distinctive competencies. Barney and Clark (2007) have set aside the debate, noting that, although each term has a different way of describing and conceptualizing firm attributes “they share the same underlying theoretical structure” (p. 23); for example, the terms focus on similar firm attributes, specific similar types of conditions in which firms will achieve sustainable success, and produce “largely interchangeable empirically testable assertions” (Barney & Clark, 2007, p. 23). In fact, Barney & Clark (2007) use the terms
capabilities and resources “interchangeably and...in parallel” (p. 24). Put another way, all terms refer to the tools that firm managers use as they compete. As Barney and Clark (2007) also note, the battles over definitions are an “extreme example of a classic academic ‘tempest in a teapot’” (p. 23).

Capabilities are also examined by (Day, 1994) who defined capabilities as “complex bundles of skills and collective learning, exercised through organizational processes, that ensure superior coordination of functional activities” (p. 38). This definition arose from the logic that market-driven organizations had the ability to sense markets, to link with customers and to collaborate with others in the value chain; put another way, capabilities are critical to long term, competitive advantage. Day argues that resources were assets of the firm and that capabilities provided the “glue” (Day, 1994) needed to configure and use firm assets in achieving goals; using this approach, factors external to the firm were considered important for competitive advantage and managers were responsible for defending the position of the firm in chosen markets (Day, 1994, p. 38). By studying capabilities as distinct from resources, researchers could examine the role of managers in building firm assets but also in building processes to leverage the resources that were specific to the firm; put another way, firm managers were involved in the process of creating competitive advantage and could focus on firm strengths different from competitors and look for market opportunities where firm-specific strengths could be applied and leveraged for firm success.

Day (1994) also divided capabilities according to their external focus or internal focus, resulting in outside-in processes (for example, market sensing), inside-out processes (for example, financial management), and spanning opportunities that matched outside-in with inside-out capabilities, for example, strategy development (p. 36). This work is an effort to
address how firms can react to complex factors in the external environment. Day notes that the distinctive capability to sense markets is similar to the behavioural definition of market orientation developed by some marketing scholars (Kohli & Jaworski, 1990) and similar to market-driven culture that is one focus of marketing scholars (Deshpande & Webster, 1989) but also notes that it is still not understood how these superior skills in a firm are developed (Day, 1994, p. 49). Barney and Clark (2007) note four categories: physical capital resources; financial capital resources; human capital resources; and, organizational capital resources (p. 24) and note that competency tends to be the term used when speaking of corporate diversification strategies (p. 23).

Research into capabilities is still considered a relatively young area of research (Newbert, 2007, p. 138). Recent studies are debating how to define and conceptualize the terminology (Helfat & Winter, 2011) and there is discussion about the level of complexity that distinguishes different types of capabilities. Some scholars argue that some capabilities are dynamic and are “the capacity of an organization to purposefully create, extend, or modify its resource base (Helfat et al., 2007, p. 4) and indicate the use of the term dynamic indicates a capability is an ability over time as opposed to an ability in the present (p. 1); this definition, however, is problematic because it would not distinguish from capabilities used to achieve short term firm success from longer term, sustained firm success, both of which are future points in time.

Viewing capabilities using management approaches.

A number of theoretical approaches connect capabilities to firm competitiveness and performance over time. Recently, Morgan (2012) integrated a variety of views into a framework that connects capabilities to business performance. Although Morgan’s work sits in the marketing field, his framework draws on two streams of work in strategic management for his
research (N. A. Morgan, 2012). Morgan notes that Porter’s Five Forces Model (Porter, 1979), also referred to as the competitive forces model (Teece et al., 1997), has been widely used as a cornerstone to identify those forces that determine the competitiveness of an industry and ultimately affecting firm success. This approach to analyzing industry structure to find the best strategic positions for firms to achieve superior competitive advantage has been called Industry Analysis (Amit & Schoemaker, 1993), Structure-Conduct-Performance (S-C-P) approach (Bain, 1968; N. A. Morgan, 2012) and also been labelled the positioning school of strategic management (Mintzberg et al., 1998). This approach was developed using economic theory and follows the logic that that a higher concentration of firms in an industry will “elevate(s) price above minimum average cost due either to higher than normal profits or increased costs” (Weiss, 1979), p. 1104). Weiss (1979) predicts that under the S-C-P approach, collusion between firms will become easier and the profit margins of firms will increase due to increased barriers to entry (p. 1105).

The S-C-P approach has provided tools for academics and managers to use when analyzing industry environments; firm-level strategies can be based on information from these tools. As in any approach, assumptions are made and the S-C-P approach assumes that firm success is a result of the industry environment and that “the sources of competitive advantage lie at the level of the industry” (Teece et al., 1997, p. 528). Porter (1979) examines the five competitive forces that comprise the external environment of the firm as follows: the bargaining power of customers; the bargaining power of suppliers; the threat of substitute products/services; the threat of new entrants to the market; and, rivalry in the industry (p. 141). This approach implicitly assumes that firm managers have the ability to respond to or influence forces in the environment and assumes the skill to achieve this are important in strategy formulation, although
this approach has not emphasized the role of firm decision makers (Amit & Schoemaker, 1993, p. 42). Taken further, another implicit assumption is that firm capabilities related to the firm’s ability to make sense of environmental factors would be given high priority by managers; these capabilities would enable firms to respond to the specific industry environment with more successful strategies. Thus, the S-C-P approach places high value on capabilities that allow managers to incorporate the uncertainty and complexity of the external environment (Amit & Schoemaker, 1993) in order to make decisions about a firm’s strategic assets.

Resource-Based Theory (RBT, Barney, 1991) posits that firms perform differently based on the resources over which they have control and assumes that firms in an industry have different resources and these resources are not easily moved about (J.A. Miles, 2012, p. 217). The resource view focuses on imperfections in markets (Amit & Schoemaker, 1993) that result in differences among firms; the interest is an internal analysis of the firm. Resources in this theory include anything that could be considered strengths of the firm and would include both tangible and intangible assets; the firm’s goal is to create a profitable strategy using its resources that will be hard to imitate resulting in a competitive advantage over rival firms that it can maintain over a period of time. This is the idea of a Sustainable Competitive Advantage (SCA) explained by (Barney, 1991) and is the ability of a firm “to create more economic value than the marginal…competitor in its product market (Peteraf & Barney, 2003, p. 314). SCA focuses on the firm or industry-level of analysis and the concept of capabilities; although capabilities were originally seen as resources, they are now usually separated as a distinct concept (J.A. Miles, 2012).

In explaining SCA from a resource-based perspective, Barney (Barney, 1991), explains that internal analyses examining firm strengths and weaknesses assume firm heterogeneity and
that external analyses examining opportunities and threats assume that firms have identical resources and heterogeneity is short-lived (p. 100); Barney’s assumptions about why some firms show sustained competitive advantage over time instead include the heterogeneity of strategic resources for firms within industries and the persistence of this heterogeneity over time due to imperfectly mobile resources (p. 101). Barney also describes that, order to have the potential to provide sustained competitive advantage, firm resources must meet the VRIN (valuable, rare, inimitable and not easily substituted by equivalents) model as previously discussed. Barney describes a number of examples of resources that are not easily understood or imitated, including (but not limited to) socially complex resources (p. 100), historically dependent resources (p. 110) and positive reputations as resources (p. 115). These examples introduce a broader understanding of how RBT supports the potential of resources to contribute to a firm’s sustained competitive advantage. Using RBT, capabilities would be framed as resources important in achieving sustained competitive advantage in the marketplace. RBT suggests that managers of firms in an industry environment are able to maintain a unique competitive position over time and can help explain how capabilities are an important part of firm strategy.

The Dynamic Capabilities Theory (Adner & Helfat, 2003) examines how firms develop capabilities to fit a changing environment and posits that firms doing this successfully will outperform rivals (J.A. Miles, 2012). Definitions of what constitutes a dynamic capability differ: Helfat and Winter (2007) define dynamic capabilities as “the capacity of an organization to purposefully create, extend, and modify its resource base” (p. 4); Eisenhardt and Martin (2000) define capabilities as “specific strategic and organizational processes like product development, alliancing, and strategic decision making that create value for firms within dynamic markets by manipulating resources into new value-creating strategies” (p. 1106). In each definition,
however, there is an element of intent and purpose behind the activities of the firm and the idea of leveraging available resources for successful outcomes.

Critics have questioned the wording of the term *dynamic*, arguing that it does not add value to the concept (J.A. Miles, 2012); problems with measurement have been noted by other critics (Pavlou & El Sawy, 2011) and J.A. Miles (2012) notes some have called the theory a tautology saying that if a firm does not change it does not mean it does not have the potential to change (p. 92). Dynamic Capabilities Theory might ask if there are capabilities unique to the industry and whether or not the development of these capabilities was affected by factors in the environment.

**Summary of Capabilities Theory.**

Literature indicates that capabilities are an intangible firm resource that can be used to gain competitive advantage, to achieve market share and to reach financial objectives; in addition, more complex capabilities support the ability of firms to sustain success over the long term by adapting to changes in their environment. To achieve this, firm managers make decisions about acquiring, developing, and divesting capabilities in the firm. Further knowledge about capabilities in the meat processing industry is necessary so understand how processing firms achieve and sustain success in their environment. Knowledge about capabilities in the industry would also be useful to public policy development so that new policy and policy reforms can support industry firm strengths and avoid increasing weaknesses.

2.2.3 Stakeholder Theory, External Environments and Firm Competitiveness

Stakeholder Theory (Freeman, 1984) emphasizes the need for value creation for stakeholders of the firm. A stakeholder is defined as any group or individual affected by a firm’s actions or whose actions could affect the ability of the firm to reach its objectives (Freeman,
Stakeholder theory could be described as holistic because stakeholder groups are seen in an interconnected system or environment where the firm operates. Freeman has noted that the theory can help to solve a congruence problem that arises when assumptions are made about stakeholders and managers make poor decisions based on these assumptions (Freeman, 1984), p. 64). Further, Freeman et al. (Freeman et al., 2010) argue that Stakeholder Theory can complement RBT, for example, by helping managers think about how to manage their resources, helping them understand how rents should be distributed, or helping them understand the network from which resources will be acquired (p. 116).

Using Stakeholder Theory, the purpose of the firm and the responsibilities of managers to stakeholders of the firm are central issues. Specifically, the theory suggests that the managers may seek knowledge regarding salient stakeholder groups and give primary attention to these groups based on their power, legitimacy and urgency (J. A. Miles, 2012, p. 307). Managers, it is argued, have a duty to manage relationships with stakeholders in order to create value for them. Freeman, Harrison, Wicks, Parmar and de Colle (2010) have stated that the challenge for managers is to avoid trade-offs among stakeholder groups, seeking instead win-win scenarios where value is created for every stakeholder in every management decision. There may be opportunities for managers to “redefine, redescribe, or reinterpret stakeholder interests” (p. 16) and create value for multiple stakeholder groups simultaneously and it is the responsibility of managers and the firm to address value creation in this way.

Stakeholder Theory is of interest in this review because it frames competitiveness as an emergent property of a free society (Freeman et al., 2010, p. 284) rather than a result of industry forces or superior resources. Stakeholder theory helps managers focus on the future of the firm
and on making strategic decisions that create value for stakeholder groups who comprise the firm environment (Freeman, 1984, p. 247). Hart & Sharma (2004) argue that managers can create competitive advantage by considering stakeholders at the “periphery” (p. 7) of established stakeholder groups who are traditionally considered most salient or important. By prompting managers to think broadly and creatively about stakeholders, Stakeholder Theory provides a practical focus for managers. An example of the usefulness of Stakeholder Theory in examining firm environments with multiple interests or stakes is found in the Trans Pacific Partnership negotiations between Canada and 11 other countries in the Asia-Pacific region; while the outcome of these talks is not yet known, managers for firms in affected industries are undoubtedly wondering how a potential change in their environment will affect their strategies. What new stakeholder groups could affect firm success? How should managers best address these stakeholder demands if the partnership succeeds or if it doesn’t succeed?

**Assumptions.**

Stakeholder Theory makes assumptions that business and ethics share a place in capitalism and that agents will not always act out of self-interest. Freeman has argued that self-interest of agents may exist but that self-interest does not provide the majority of motivation in business decisions, making the observation that it is difficult to tease apart individual and firm motivation for most decisions (Darden MBA, 2009). Some have criticized Stakeholder Theory because of the *separation fallacy*\(^7\), but Freeman et al. (2010) argue that business ethics “acts as a kind of balance alongside self-interest” (Freeman et al., 2010, p. 201) and the creation of value.

\(^7\) Freeman (1994) suggests that most business theories separate ethical and business decisions (p. 6) and refers to this as the *separation fallacy*; proponents of Stakeholder Theory argue that this paradigm is well-established in current understanding of society and the role of business (p. 6).
includes the responsibility of the manager and the firm to its stakeholders (p. 264). Responses include the need for ethics and business to be studied together because the dominant narrative about business does not frame it as a “fundamentally human enterprise” (Freeman et al., 2010), p. 67. (Ghoshal, 2005) also argues for an ethical component in management theories, arguing that “by propagating ideologically inspired amoral theories, business schools have actively freed their students from any sense of moral responsibility” (p. 106).

**Stakeholder Theory and analysis of firm environments.**

An analysis of the business environment using Stakeholder Theory begins by identifying the stakeholders in the industry environment (Freeman, 1984). Once stakeholders were identified, analysis continues by examining how each stakeholder affects the firm and how the firm affects each stakeholder; it is also necessary to identify connections among stakeholders so that the interconnectedness of all external relationships is examined. Stakeholder Theory advises managers to look not simply at the competition when scanning the environment since this approach reduces the potential to find win-win solutions for value creation for all stakeholders (Freeman et al., 2010, p. 284); instead, analysis identifies environmental variables that currently affect stakeholder groups and determine how these might be measured. Freeman describes this exercise of external analysis as a way in which managers could revise their conceptual maps and use the stakeholder concept to provide a new approach to strategic management that considers the effects of firm activities on both internal and external stakeholders of the firm. This suggests that a strength of using a stakeholder approach in an analysis of the external environment of a firm could be that managers are more likely to find opportunities for value creation with external stakeholders rather than only seeing external stakeholders as threats to firm goals. This approach does presume that managers would be willing to pursue positive relationships with external
stakeholders with the logic that more positive relationships could result in greater success for the firm.

**Summary of Stakeholder Theory.**

Literature about Stakeholder Theory gives managers a practical approach to considering groups and individuals who can affect the firm or be affected by the firm. It prompts managers to think about their responsibility to stakeholders, to create value for stakeholders, and posits that firm success is a result of successful value creation for stakeholders of the firm. It also considers that external stakeholders of a firm can affect success of the firm.

2.2.4 Theoretical Perspectives About How Firms May Compete in Supply-Managed Environments

Table 2.1 summarizes the main foci for each of the management theories reviewed and describes how threads from each theory might help to frame firm-level competitiveness in supply-managed regulatory environments. This table synthesizes a number of ideas in from the review: first, the table provides three theoretical approaches in the study of competitive environments of firms; second, the table gives key assumption of each perspective; third, the table suggests how firms achieve competitive advantage (firm-level competitiveness); and fourth, the table offers questions that could be asked using each theoretical approach about the policies that support supply management.

**Table 2.1. Comparing Theoretical Perspectives about Firm-Level Competitiveness in Supply Managed Environments.**

<table>
<thead>
<tr>
<th>Resource-Based Theory</th>
<th>Capabilities Theory</th>
<th>Stakeholder Theory</th>
</tr>
</thead>
</table>

35
Focus of Theory

Firms with resources that have value, rarity, inimitability and non-substitutability are most likely to succeed.

Complex capabilities allow firms to adapt to changing environments.

Looks at internal and external stakeholders of a firm and considers creation of value for all stakeholders.

Assumptions about External Environment

External environment will influence resources of a firm, thereby affecting firm success.

Firms that most successfully match their capabilities to the external environment are most likely to succeed.

External environment has stakeholders, both primary and secondary, whose actions can affect firm success.

Approach to Competitiveness

Competitive advantage obtained as a result of rents earned through firm control of resources.

Competitive advantage is created when firm creates more relative value using resources than competitors.

Social cooperation (partnerships and collaboration) used to create value and generate win-win outcomes.

Questions Arising About Policies Supporting Supply Management

How do policies affect resource heterogeneity in meat processing firms?
Do policies affect value, rarity, inimitability, or substitutability of resources of meat processors?

How do policies affect capabilities developed by meat processing firms?
How have meat processing firms been able to extend their resources and compete for market share?

How do meat processing firms create value?
With whom do meat processors collaborate or establish partnerships?

Because each management theories provides a different approach that can be used to examine practical issues facing firms in a specific regulatory environment, these theories can be used to gain understanding where there are gaps in knowledge. Van de Ven (2007) discusses the knowledge production problem (p. 5) as one way to understand a theory-practice gap such as, for example, exists in understanding firm-level competitiveness of firms in specific regulatory environments. Knowledge production problems, Van de Ven (2007) argues, may result from unengaged research that is not “grounded in ‘reality’, does not entertain alternative models form representing reality, nor is it informed by key stakeholders” (p. 5). The use of management
theories to examine a practical problem without theory to explain the phenomenon—as is the case in this research—may, therefore, contribute to what Van de Ven has called engaged scholarship (p. 2).

2.3 Management Theory and Food Manufacturing Industry Competitiveness

This section focuses on research that has used management theory to examine competitiveness in Canada’s food processing industry, the capabilities of the food processing industry, and the supply management policies that affect certain sectors of the food processing industry in Canada.

2.3.1 Literature About Food Processing Industry in Canada

The food processing industry in Canada is part of the Canadian agriculture and agri-food system (AAFS) and is described as “a complex and integrated supply chain which [sic] includes input and service suppliers, primary producers, food and beverage processors, food retailers and wholesalers, and foodservice providers” (Agriculture and Agri-Food Canada, 2015). The food and beverage processing industries provided the largest share (15.9%) of gross domestic product of all manufacturing industries in Canada in 2012 (Agriculture and Agri-Food Canada, 2015). The food processing industry involves inputs, both primary and processed. Estimates from 2012 indicate that about 50% of primary agriculture production in Canada is destined for export as a primary commodity or as a processed product; this means that the processed food industry is relatively dependent on export markets (Agriculture and Agri-Food Canada, 2015).

Literature about AAFS and about the food processing industry can be found in number of areas; four key areas are discussed briefly next. Table 2.2 shows results from a search for
scholarly articles\(^8\) including the search term *Canada* and one of the following five areas—agri-food, agribusiness, food processing, food manufacturing, and meat processing. Results were also recorded for a third term that included the word *management, competitiveness* or *capabilities* in an effort to locate scholarly literature about the food processing industry that would be useful in this review.

*Table 2.2. Search Results for Scholarly Articles about Competitiveness and Capabilities (all years, peer-reviewed only)*

<table>
<thead>
<tr>
<th>Base Search Terms</th>
<th>Total Results</th>
<th>Additional Search Terms</th>
<th>Total Results</th>
<th>Subject Category</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Management</td>
<td></td>
<td>Management or Strategic Management</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Economics or Agricultural Economics</td>
</tr>
<tr>
<td><strong>Canada</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>+ Agri-food</td>
<td>11,140</td>
<td>+ Management</td>
<td>780</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>+ Competitiveness</td>
<td>30</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td></td>
<td>+ Capabilities</td>
<td>12</td>
<td>0</td>
</tr>
<tr>
<td>+ Agribusiness</td>
<td>423</td>
<td>+ Management</td>
<td>89</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td></td>
<td>+ Competitiveness</td>
<td>17</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>+ Capabilities</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>+ Food Processing</td>
<td>955</td>
<td>+ Management</td>
<td>150</td>
<td>19</td>
</tr>
<tr>
<td></td>
<td></td>
<td>+ Competitiveness</td>
<td>10</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td></td>
<td>+ Capabilities</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>+ Food Manufacturing</td>
<td>691</td>
<td>+ Management</td>
<td>85</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>+ Competitiveness</td>
<td>3</td>
<td>3</td>
</tr>
</tbody>
</table>

\(^8\) Only articles in peer-reviewed journals were included; literature for dates were included in the searches.
Several observations can be made from these search results. First, the agri-food search returned the highest number of articles; this is likely due to the high number of papers published in the pure sciences connected to agri-food topics, for example, soil, crops, livestock etc.in the search results. Second, the addition of *management* to the search terms gave the highest number of results in the agri-food search, however, agribusiness and food processing searches resulted in the highest number of papers in the *management* or *strategic management* subject areas. It is worth noting that results from searches including management or capabilities could easily be misleading because these words are used colloquially and generically in many cases. Third, the addition of *competitiveness* to the search terms returned some results, however, it was immediately apparent there is little scholarly literature about competitiveness as a subject of focus in food processing, food manufacturing, or meat processing. Fourth, there were few articles about capabilities returned in searches in any of the five areas searched.

Table 2.2 also indicates that articles in management subject areas were few in most searches, the exceptions being *agribusiness* or *food processing* searches; literature in economics subject areas was apparent in *agri-food, agribusiness* and *food processing* searches, the first two perhaps reflecting shared “belief systems and scientific rules of appraisal of an economics paradigm” (Ng & Siebert, 2009).
The data collected in Table 2.2 indicates there may be much academic literature about *agri-food* but far less in agribusiness, food processing, food manufacturing, or meat processing. Literature specifically addressing meat processing—a highly regulated industry—is limited and there is no academic literature about this industry in the management, competitiveness, or capabilities subject areas. This is not perhaps completely surprising given the narrative in the subject areas; (Harling & Thompson, 1983) has noted that “agribusinesses were seen as having characteristics that distinguished them from other businesses… (that included) …the influence of government policies/programs; cyclical and seasonal production patterns; and production processes and products that are influenced by biology” (p. 509). Ng & Siebert (2009) noted that management and economics were viewed as distinctly different disciplines (p. 124). This may explain why literature about competitiveness and capabilities in agribusiness has been examined predominantly by economics-based scholars. To summarize, there is little research about food or meat processing in the management subject areas and virtually none about capabilities, even in management subject areas where one might expect to find it. As a result, literature about food and meat processing in countries other than Canada are included in this review when helpful to the discussion about competitiveness and firm capabilities in the food and meat processing industries.

2.3.2 Competitiveness and Capabilities in Food Processing Industry

This section reviews literature about competitiveness and capabilities in the food manufacturing industry context. There is very limited literature available specifically examining capabilities in meat or food processing where capabilities are concerned, in particular since the word *capabilities* is often used in a generic sense, however, the focus of each paper is explained to give context, for example, if the research was done in a country outside Canada.
Some research about the food industry has identified that specific skills and competences are needed to manage firms the value chain for competitive success. In a paper written for a supply chain management audience, van Duren and Sparling (1998) discuss the need for a study of supply chain management and competitiveness in the food industry from a supply chain perspective because past work has focused on efficiency and business activities. These researchers argue there is a need to focus on management of supply chains in the agri-food sector and note that management skills in supply chains are connected to competitiveness (van Duren & Sparling, 1998, p. 480). In order to work with partners in supply chains, the authors argue, managers must understand the capabilities and competencies they can offer in a relationship and how to manage these resources (p. 482).

Research that makes reference to capabilities, skills or processes in literature about the food industry are made periodically but often without detail; some examples of this are discussed next. Research about supply chain management in the UK examined the need to further study how to build alliances in the food industry supply chain to increase collaboration by employing capabilities, but did use the word capabilities and did not defined processes (Palmer, 1996); this research argued that collaborations were particularly challenging in the meat and livestock sector of the industry because “confrontational” (p. 11) relationships based on pricing issues can be a barrier to improved alliances in the supply chain. Economics researchers have examined the meat agri-food system in Brazil; Zylbersztajn and Filho (2003) concluded that there is a need to include “aspects of coordination” (p. 155) as a possible source of competitive advantage in food processing industry value chains. These authors note that dynamic capabilities need to be developed to facilitate alliances and shared learning, but they do not define nor reference their use of either capabilities or dynamic. In research about open innovation (Chesbrough, 2003) in
the food processing industry, Fortuin and Omta (2009) examined drivers of and barriers to innovation that supports competitiveness in The Netherlands. These researchers argued that innovation capabilities that are divided into: “management of innovation…cross-functional communication…and) external communication and open innovation” (Fortuin & Omta, 2009, p. 843); the authors conclude that firms underutilized internal firm capabilities in research and development by not collaborating more with buyers, suppliers and competitors (p. 841) and this was one reason innovation in food processing lagged behind that of firms in other industries (p. 849). Again, however, the word capabilities is not defined nor referenced by the article. (Sarkar & Costa, 2008) researched innovation in food industry and concluded that firms must improve internal capabilities by better integrating these activities and processes to achieve competitive advantage. The authors also note that innovation is dynamic and advised food processing firms to “generat(e) products that naturally differentiate themselves over and over again in the crowded agri-food markets” (Sarkar & Costa, 2008, p. 579) but dynamic and innovation capabilities are never defined nor referenced. These studies show a need to study capabilities, but details about the capabilities needed are lacking.

The specific importance of capabilities in the food industry has also been the focus on the Ontario government. Although not published in a peer-reviewed publication, a joint 2008 report by the Ontario Ministry Agriculture, Food and Rural Affairs (OMAFRA) and the University of Guelph (OMAFRA, 2008), established shared research priorities based on the gap in knowledge about capabilities in food industry value chains as follows:

The capacity for agriculture and agri-food to innovate in accordance with market opportunities stems from management capability, as well as workforce training and education. However, this capability is often the resource most lacking in the development and sustainability of successful, closely-aligned value chains, which are able to continually adapt to consumer demands
and customer requirements through innovations in process, product and service. This has become a major factor on the processing end – in fact it is at a critical stage affecting the competitiveness of the industry. (OMAFRA, 2008, p. 71)

This report identifies that capabilities, albeit in a generic sense, are an issue of central importance and interest from the perspective of policy makers and academic experts; it also stresses the importance of value chain management in the food industry and the connection between value chain member capabilities and industry competitiveness. Because research has established that capabilities play a key role in the ability of firms in an industry to compete, it is important that capabilities be examined in this industry-specific environment.

2.4 Policies Supporting Supply Management in Food Manufacturing Industry

This section reviews literature about the policy of supply management that figures prominently in the external environment of some sectors of the Canadian food industry. In order to understand the external environment of the meat processing industry, it is necessary to understand how the policy of supply management—a very impactful feature of the external environment—affects firms in the food processing industry; increased understanding of the policy will also give context to opinions of critics and supporters. It is also important to understand the current pressures on supply management policies because possible future reforms to this system will affect the entire value chain for many firms in the industry. The nature of supply management is discussed next, followed by a brief review of the narrative of supply management in Canada, a review of the debate about supply management, and a discussion about the future of supply management in the food processing industry.

2.4.1 Definition of supply management.
Most definitions of supply management policies are consistent in the focus on a goal of stable, agricultural commodity production; the ways in which the policies that manage supply, however, are through legally-mandated, regulatory organizations referred to as marketing boards\(^9\). There are also marketing boards that do not have the ability to regulate production as will be described shortly. Supply management can be defined as “a regulated marketing system for farm products that consists of controls on supply (in the form of quotas) that help ensure a fair return to the producers of certain food commodities” (Metcalf Foundation, 2010, p. 6). Spriggs and Van Kooten (1988) included the policy of supply management in the category of “agricultural commodity stabilization programs” (p. 1). In referring to the marketing boards that support supply management policies for some commodities, Forbes (1982) declared supply management policies as a technique “to replace the supply side of the market place for regulating production and allocating resources in agricultural production” (p. 27).

Jurisdictional authority varies; some marketing boards operate under the authority of the federal government and others operating under provincial authority but boards with federal authority can regulate interprovincial trade (Veeman, 1997, p. 411). The breadth and authority of marketing boards varies by commodity but four objectives can include: marketing strategy activities that may include product promotion, advertising or branding; quality control and logistics; industry and market development; and, market stabilization (van Duren & Hansen Sterne, 2015a). These are four types of marketing boards; three of these are used in Canada and vary primarily by level of authority (Ontario Ministry of Agriculture, 2015):

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\(^9\) Supply management is a term that is used only as a marketing board concept in this research. The term is also used in journals to refer to a production context, that is, cleaner and more efficient management of resources by firms.
1. Negotiating Boards - require buyers who must purchase commodities to negotiate a minimum price and may also negotiate sale conditions like volume, expected quality, delivery schedule etc. (for example, Ontario Apple Growers, Ontario Processing Vegetable Growers);

2. Boards with Price Authority - allow the price that will be paid to the producer to be set and may or may not include discussions with buyers (examples of this board type include Ontario Pork Marketing Division, Ontario Sheep Marketing Agency);

3. Boards that Regulate Production and/or Marketing through Quotas - set the volume each farmer can produce based on the provincial share of the national quota and stipulate prices by setting or negotiated them (for example, Egg Farmers of Ontario, Turkey Farmers of Ontario). These are the type of marketing boards that enforce the supply management policies in Canada.

A fourth type of marketing board exists in other jurisdictions and is called a Promotion Board; these boards use generic “advertising and promotion to position information in the market about an agricultural product and to stimulate demand for the product” (van Duren & Hansen Sterne, 2015a); examples of this type of board are found in many countries around the world.

Virtually all marketing boards are controlled by a committee of producers who are usually, but not always, involved with that farm product (Lang, 2012). Remaining membership of boards varies by board, but most fall under the category of producer, government representative, or committee member; representation often has some form of breakdown by geographic region to reflect representation.
2.4.2 Narrative of supply management.

Marketing boards in Canada date back to co-operative movements in the early 1900s when producers worked together to address common concerns (McMurchy, 1990). These early co-operative organizations were the roots of a concept enabled by legislation in the Canadian parliament called The Natural Products Marketing Act of 1934; provinces followed the federal lead to establish their own marketing legislation. In Ontario, the Farm Products Marketing Act was established in 1946. McMurchy (1990) has reported that by 1965 the marketing system became “radically different” (p. 3) because of comprehensive powers gained by marketing boards under the law. Since then, the Farm Products Marketing Act has had only minor amendments. Veeman (1997) reports one specific amendment in 1993 that permitted provincial bodies to link together in federal-provincial agreements to ensure that domestic and imported products were treated equally. Veeman (1997) also found that the movement to link the legislative bodies and create a national research or promotion agency has been moving slowly due to the “high administrative costs to establish or maintain” (p. 412) the complex structures that have developed; this is an issue often mentioned by boards or other industry associations who do not collect fees (often called check-offs, (Canada Beef, 2012)) from producers to support research and marketing of specific agricultural products or other similar mechanisms to enable producers to support this work.

2.4.3 Debate about supply management.

It is important to understand concerns on both sides of the debate about the impact of supply management policies on members of the value chain. With the exception of neoclassical, economics based analysis, opinion and research are mixed in their position on supply management and the system’s effect on producers, on consumers, on businesses in the food value
chain, and on society. A review of opinions from both sides follows with some observations about the assumptions made by each point of view.

**Support for supply management policies.**

Supply management policies are often (but not always) promoted by those with an interest in the system (for example, marketing boards or producer trade publications) and it is logical to understand that some of these groups benefit from the success of producers (see for example (Chicken Farmers of Canada, 2011) or (Nudds, 2012)). The media will also publish article citing arguments both supportive and critical of supply management policies, for example, (Miner, 2011) and (Rance, 2015).

Supporters of supply management generally argue there are net benefits with supply management policies including: commodity pricing is fair, predictable for consumers and producers; product quality programs can be maintained and supported by the industry; income received by producers is equitable and predictable; local and rural communities are supported; industry innovation and research are supported through industry initiatives funded by the system; and, animal welfare and environmental sustainability initiatives are supported (Egg Farmers of Canada, 2015; McIsaac, 2008; Miner, 2011; Nudds, 2012). Table 2.3 lists key arguments—both evidence and opinion—that are supportive of supply management; also included are examples of an economic and management perspective for each attribute to give examples of how benefits of the policy could be seen through different lenses; in many cases these illustrations demonstrate how differently the policy can be viewed when using different lenses.

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Details</th>
<th>Economic Perspective</th>
<th>Management Perspective</th>
</tr>
</thead>
</table>

Table 2.3. Arguments Supportive of Supply Management with Economic and Management Perspectives.
<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
<th>Impacts</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fairness in Returns to Producer</td>
<td>Producers receive equitable source of income for their efforts.</td>
<td>Market equilibrium with marketing board different from perfect competition (Johnson, Spriggs &amp; Van Kooten, 1982, p. 372)</td>
<td>Producers gain ability to be competitive; supply management means their products are valuable and rare in the market.</td>
</tr>
<tr>
<td>Product Quality</td>
<td>Producers meet high standards for quality and safety of products.</td>
<td>Lack of innovation could result in lower product quality.</td>
<td>Consumers will demand higher product quality or purchase from competitor.</td>
</tr>
<tr>
<td>Predictability</td>
<td>Producers protected from boom and bust cycles of free market.</td>
<td>Boom and bust cycles of agricultural commodities are smoothed (Cooper, 2014).</td>
<td>Could assist in forecasting for functional areas of business.</td>
</tr>
<tr>
<td>Power</td>
<td>Producers have too much power.</td>
<td>Marketing boards act “as countervailing force to monopoly elements elsewhere in the marketing system” (Johnson et al., 1982, p. 372)</td>
<td>Producers can be stakeholders of other industry groups.</td>
</tr>
<tr>
<td>Environment</td>
<td>Greater resilience in face of future climate change than in systems without similar policies (Muirhead &amp; Campbell, 2012).</td>
<td>Environmental limits are not considered in economic models.</td>
<td>Protection of resources over long term.</td>
</tr>
<tr>
<td>Social</td>
<td>Helps rural and local communities; does not hurt developing countries (Oxfam Canada, 2007).</td>
<td>Welfare gains from stability of prices and quota not included in models (Johnson et al., 1982, p. 369).</td>
<td>Producer objectives—other than financial—can be supported.</td>
</tr>
<tr>
<td>Waste</td>
<td>Less dumping of oversupply. Less waste due to higher cost.</td>
<td>Productive resources do not become scarce.</td>
<td>Resources are valuable because of their earning potential; this should encourage</td>
</tr>
<tr>
<td>Animal Welfare</td>
<td>Animal welfare improved under supply management (Qualman, 2012).</td>
<td>Not considered in economic models.</td>
<td>Producers will invest in resources (their animals) and treat them better if valuable, rare, and inimitable.</td>
</tr>
</tbody>
</table>
Criticisms of supply management policies.

There are, of course opponents of policies supporting supply management. Opponents of supply management policies often include: industry associations like the Canadian Restaurant and Foodservices Association (Canadian Restaurant and Foodservices Association, 2012); institutes that study economic competitiveness, like the CD Howe Institute (M. Hart, 2005; S. K. A. Robson, 1999); or research centres or think tanks like the George Morris Centre and the Institute for Competitiveness and Prosperity (Mussell, 2012; Stapleton & Cook, 2010). In most of these organizations, the mission is related to competitiveness and free market competition; the mission statements or raison d’être for these organizations can be found in Table A1 and Table A-2 of Appendix A.

Table 2.4 lists key arguments—using both evidence and opinion—that are critical of supply management; also included are examples of an economic and management perspective for each attribute to give examples of how criticisms of the policy could be seen through different lenses; in many cases these illustrations demonstrate how differently the policy can be viewed when using different lenses.

Table 2.4. Arguments Critical of Supply Management with Economic and Management Perspectives

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Details</th>
<th>Economic Perspective</th>
<th>Management Perspective</th>
</tr>
</thead>
<tbody>
<tr>
<td>Price for Consumers</td>
<td>Prices consumers pay are unfairly inflated (M. Hart, 2005) because cost of the system and oversight borne by consumers (Sparling, 2011; Tamilia, 2007)</td>
<td>Lower income consumers pay more for product relative to their income; reduces overall welfare.</td>
<td>Producer organizations work stakeholders to donate food for those in need similar to approach in other industries (Chicken Farmers of Ontario, 2015a)</td>
</tr>
<tr>
<td>High Entry Costs for New Producers</td>
<td>High entry costs are unfair to new and younger farmers (M. Hart, 2005)</td>
<td>Quota</td>
<td>Resources increasingly used to cover cost of quota (Petkantchin, 2006).</td>
</tr>
<tr>
<td>Reduces Competition</td>
<td>Lowered competition because marketing boards have no interest in new opportunities or innovation (Forbes, 1982; Thompson, 2011)</td>
<td>Reduced incentive for producers to innovate.</td>
<td>May be barriers to entry (Porter, 2008).</td>
</tr>
<tr>
<td>---------------------</td>
<td>-------------------------------------------------------------------------------------------------</td>
<td>-----------------------------------------------</td>
<td>------------------------------------------</td>
</tr>
<tr>
<td>Artificial Limits to Supply, Productive Capacity</td>
<td>Productive capacity is limited by supply quotas, the pricing signals that would normally occur in a free market (resulting in overproduction when prices are lower) do not occur and the income received by producers is boosted artificially (Petkantchin, 2006; Robson, 1999)</td>
<td>No limits to productive capacity in long term is assumed.</td>
<td>Producers can focus on development and use of resources that support productivity beyond the short term.</td>
</tr>
<tr>
<td>Decrease in Industry Competitiveness</td>
<td>Control over new entrants to market results in decreased innovation entrepreneurial activity (W. B. P. Robson &amp; Busby, 2010)</td>
<td>Price of quota makes industry costly for new entrants.</td>
<td>Increased barriers to entry supports industry market share and profitability.</td>
</tr>
<tr>
<td>Social</td>
<td>Estimates of social welfare may required long term measurements (Mishan, 1968);</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Growth&lt;sup&gt;10&lt;/sup&gt;</td>
<td>Supply management limits market expansion opportunities and development of new products is challenging (Mussell, 2012)</td>
<td>Considers growth activities related to increased output and efficiency; does not consider activities related to development (Daly, 1987)</td>
<td>New markets may be developed using new capabilities rather than from tangible resources.</td>
</tr>
<tr>
<td>Focus on Farm Incomes</td>
<td>Focus should be on agriculture industry competitiveness (Sparling &amp; Thompson, 2011).</td>
<td>Welfare is not overall but gained by producers.</td>
<td>Producers are important stakeholder in quality and safety of farm products; processors benefit</td>
</tr>
</tbody>
</table>

<sup>10</sup> Growth here is used to encompass both quantitative increases in physical dimensions of an industry but also development that represents a qualitative improvement resulting from greater knowledge (Daly, 1987).
| Limits to Partnerships Between Processors and Producers | Relationships between farmers and processors limited; reduces opportunities to expand markets (Mussell, 2012). | Rewards from producer-processor relationships are costly given the potential benefits. | Makes assumptions about relationships; market expansion achieved differently depending on firm mission and focus. |
| Producers Lack Managerial Skills | A reliance on marketing boards that lack the “managerial savvy” (Tamilia & Charlebois, 2007) required to respond to market changes. | Marketing boards may be more efficient way to organize marketing of commodities that are limited in heterogeneity; managerial skills may be more appropriate farther along the value chain where heterogeneity increases. | Managerial skills required for production may be easily imitated other producers’ homogeneity. |
| Export Markets Not Developed | Affected sectors have given up export opportunities to protect domestic producers from foreign competition (Institute for Competitiveness & Prosperity, 2010). | Export markets may be considered unpredictable, putting domestic firms at risk of expansion and contraction. | Producer resources may be best suited to develop limited, differentiated strategies in export markets instead of low cost strategies to avoid spreading resources too thin (Naidu & Prasad, 1994). |

2.4.4 Discussion of supply management.

Assumptions made by those arguing for and against supply management provide context for understanding what Mussell (2010) has identified as “clashing ideologies” (Mussell, 2010), p. 2) in the supply management debate. With this in mind, there are assumptions made on either side of the supply management debate that will be addressed next.

Proponents of supply management policies may assume that both consumers and demand for food products is consistent over time and, therefore, supply management policies may be
focused only on innovation at the production level of the value chain. The assumption about static needs and demand may have been reasonable when supply management policies were first developed, however, there is some evidence that the market is showing increasing demand from “new food economies” (Blay-Palmer & Donald, 2006, p. 383), for example, as locally-produced foods, foods grown using alternative production methods viewed as natural and healthier for animals and people, and organic or ethnic foods (Elton, 2012; Mussell, 2010; Phair, 2012). It is also possible to argue that there is a cost in failing to innovate over time, but it is difficult to find evidence in the industry to support this.

An assumption made by opponents of supply management is that it affects the growth that is important in an economy in order to increase welfare of citizens. Growth can be achieved in a number of ways but generally ideas about growth involve increasing the value of resources by finding different ways to arrange their use; that is, increasing the value of resources without increasing the amount of inputs required. However, (Daly, 1987) notes that economists approach growth by assuming a “quantitative increase in the scale of the physical dimensions” (p. 323) but do not consider the “qualitative improvement in the structure, design, and composition of physical stocks and flows, that result from greater knowledge, both of technique and of purpose” (italics original, p. 323). This assumption places limits, therefore, on the perceived potential of some firm resources, particularly skills and competences that may be VRIN. Daly (1987) has distinguished growth from development, identifying the latter as a “qualitative improvement in non-physical characteristics” (p. 323). It would be important to consider if development of an industry is affected by supply management.

Criticisms about supply management have been made for decades; and it is important to think about these in the current context of the food value chain. For example, there are demand
changes in both production and processing levels of the value chain including, for example, there is continued growth in consumer demand for both organic food production (Agriculture and Agri-Food Canada, 2013) and halal processed meat (Canada, 2011). A study by the Metcalf Foundation argues that supply management has benefits for conventional farming but must be reformed for alternative production; that is, reforms should be made to encourage non-conventional farming (like mixed farms producing several products) and new farmers without the economies of scale that can support the high cost of quota (Metcalf Foundation, 2010, p. 6). The study recommends that policies supporting supply management be modified to meet the needs of producers who have made the choice to use a diversified strategy reduces overall risk to a farming operation (Metcalf Foundation, 2010, p. 25); specifically the study report recommends several reforms to policies supporting supply management including: raising quota exemption levels; decreasing minimum quotas and allowing for marketing by specialty producers; establishing specialty product quotas; creating exemptions for specialty products and for direct marketing; and, allocating processing to target specialty markets (Metcalf Foundation, 2010), p. 30). These authors also observe that realizing value of a differentiated product requires “direct contact with customers” (Metcalf Foundation, 2010, p. 28) which underscores the importance of this external stakeholder (the customer) for firms using a differentiation strategy. Some have assessed the industry forces pushing a need for differentiation strategies and the countervailing forces supporting the maintenance of a cost focus in Canadian agriculture (Mussell & Mactaggart, 2005); these authors suggest that a national debate should take place in Canada about the barriers to differentiation strategies (p. 14).

If policies supporting supply management limit producing firms from developing and employing differentiation strategies, then this may present a problem for some producing
firms—but this may not necessarily affect other members of the value chain who may be able to differentiate the product as they add additional value during the transformation stage. If policies supporting supply management do not limit the generic strategies available to meat processing firms, then the meat processing industry should show evidence of different types of skills that are needed to build relationships throughout the value chain. According to Porter (1980), the skills used to develop, build, leverage and maintain relationships when using a focus strategy are different than the skills needed to collaborate when using a differentiation strategy.

Others have commented on the decades of disagreement about policies supporting supply management. Mussell (2010) has summarized the supply management debate and identified that arguments on both sides have been simplistic, lacked context, have caused defensiveness, and been “mired in ...arcane detail” (p. 9). Others have noted the failure of policies to meet current contexts, expressing an opinion that supply management policies were not designed to operate in the external environment as it currently exists (Goldfarb, 2009).

In order to address the need for change, Mussell (2010) recommends that supply management policies should be modified and revised rather than removed because complete removal of the system would be complex and there are some worthy elements (p. 13); in more recent work, Mussell (2012) acknowledges that “the question of whether to discard the system due to its cost is not the relevant question anymore; supply management has become firmly entrenched politically” (Mussell, 2012, p. 5). This author also stresses the need for scholars and economists to better understand the social and environmental context for public policy by conducting work based on questions relevant to this current context and by “interacting on a more intimate basis with policy decision makers” (Mussell, 2012, p. 9). It seems logical to suggest that increased interactions between stakeholders—practicing managers along the value
chain, policy makers, and scholars—should provide the basis for policy reform; Van de Ven (2007) has discussed the challenges of engaged scholarship and observed that “numerous interactions are required to share and interpret knowledge, create new meanings, and negotiate divergent interests” (p. 259). It may be that a variety of forces are needed to simultaneously pressure each stakeholder to discuss how agricultural policies could look in the future.

The next section of this review will examine literature examining supply management policies and the food processing level of the food value chain.

2.4.5 Supply Management and Ontario Meat Processing Firms

Policies supporting supply management are just one set of policies among many that affect food processors—and the meat processors that are the specific focus of this research. A variety of government-enacted regulations apply to many stages of the food processing operation and include (but are not limited to) government-enacted regulations about the substances added to food, any genetically modified ingredients, country of origin labelling (COOL), and inspections for food safety (Bloom, Grant, & Slater, 2011). The regulatory context in the food processing industry has been called “complex” in a report by (Bloom et al., 2011), who compare Canada’s regulatory framework in the industry to other countries, concluding that “the approach is disproportionate to the relatively small size of its underlying market” (p. 16). It is unclear from this report why the size of a market should to any degree determine the nature of the regulatory oversight, per se; however, the authors argue that a reforms are needed to address many types of food government-enacted regulation, poor coordination, slow speed of administrative procedures, inconsistencies between jurisdictions, and a lack of accountability and transparency (Bloom et al., 2011, p. 16). What seems logical, however, is to question the impact of complex, government-enacted regulations vis-à-vis firm size.
Smaller meat processing firms make up the majority of the meat processing operations in all provinces of Canada, however, data that is recent is difficult to find. Many lists of meat processors are broken down by the protein that is processed and contain no data about firm size (for example, OMAFRA) or they are organized by the type of product (for example, Canadian Food Inspection Agency). Industry organizations contacted indicate that they also do not have data about firm size, however, did indicate that they do not use the Industry Canada size categories (Nicol, 2015). Since there is little academic information that was specifically about meat processing firms and government-enacted regulation\textsuperscript{11}, it was necessary to look at studies that were also about competitiveness, strategy and purchasing\textsuperscript{12} in SMEs (small and medium enterprises). One relevant study about government-enacted regulation and firm size in meat processing was found. The study examined the impact of new food safety regulations imposed on meat processors in British Columbia and the subsequent modification of these government-enacted regulations to include special licenses for smaller processors. The authors note that government-enacted regulations were adopted for smaller processors because the difference in farming practices in smaller scale farms was acknowledged as reducing the food safety risk (Miewald, Ostry, & Hodgson, 2013); the authors conclude observe that there are “scale-specific differences between small and industrial meat producers” (p. 100).

\textsuperscript{11} Data regarding the number of firms in the meat processing industry of different sizes is discussed in Chapter Three.
\textsuperscript{12} There was an additional challenge in finding literature about how policies of supply management may affect food processing firms. When using the search term supply management, it was difficult to tease out material about purchasing because the term supply management is also used to refer to management as it applies to supplying resources to firms. One such functional area is purchasing and this area is concerned with procurement of resources and the term. One journal, for example, has the title The Journal of Purchasing and Supply Management and is concerned with research in the field of purchasing and supply management (PSM; http://www.journals.elsevier.com/journal-of-purchasing-and-supply-management/ )
Limited literature was found addressing SMEs in the food processing industry and was generally focused on procurement challenges. One review of purchasing behaviour in SMEs found that “many managers in SMEs do not regard purchasing as a key task, and some do not even perceive purchasing as a distinct activity (Ellegaard, 2006, p. 567.) This author concludes that purchasing theory has been largely based on large corporations, despite a recognized dependence of smaller firms on outside resources and that smaller firms have indeed been studied but studies have neglected the purchasing function in particular (Ellegaard, 2006); the author also observed that SME owners handle a diverse number of tasks and challenges in their role, they “tend to have a good understanding of the complex connections between administrative functions and the cross-functional consequences of decisions” (p 281). Others have compared purchasing theory with practice, noting the field was focused on large firms and “obsessed with studying the effects of corporate bloating” (Ramsay, 2008, p. 567). Together, these findings suggest there is a need to understand how policies, like supply management, may affect the strategies of smaller meat processing firms differently than larger processors.

Other studies about purchasing in general suggest there may be a scarcity of knowledge about the skills required for purchasing tasks in smaller firms (Ramsay, 2008). This study notes that “small and medium sized companies are in need of a deeper understanding of dyadic relations” (Ramsay, 2008, p. 568) with suppliers. These findings suggest that knowledge about the skills useful for SMEs is needed, particularly as it relates to relationships with suppliers.

Some researchers have examined the importance of marketing boards and how these could be more responsive to market forces in Canada (Tamilia & Charlebois, 2007). These authors observe that most research about policies supporting supply management appears in literature in the agricultural economics field but not in the management field; they suggest there
may be value in using management theories to understand the managerial decisions made by marketing boards that affect all firms in the food value chain. This research can begin to fill this gap by using management perspectives to examine how supply management policies affect the processing level of the value chain.

2.5 Chapter Summary

This section looked at academic sources of knowledge to examine how management theories provide different perspectives that can be applied to research problems; specifically, each perspective is useful in trying to understand problems by changing the focus with which they are viewed. First, Resource-Based Theory (RBT) explains firm success by focusing on the resources of the firm and their value, rarity, imitatibility and substitutability and by examining how the external environment of the firm affects resource availability. Second—building on RBT—Dynamic Capabilities Theory explains firm success by considering how firms develop and leverage skills and competences to adapt to a changing environment and are able to do this over the long term. Third, Stakeholder Theory looks at firm success as a result of how well firms create value for internal and external stakeholders.

This section also reviewed literature about the policies that support the regulatory environment in which meat processing firms operate and paid particular attention to those policies supporting supply management; support and criticism of these policies was considered and interpretations from both economic and management perspectives were noted. Literature was reviewed that suggested that smaller firms in the meat processing industry may be different than larger firms, particularly as it relates to skills needed to collaborate with suppliers in order to leverage resources and share knowledge. And finally, the knowledge reviewed in this chapter was synthesized into a table that compares how three management perspectives can be used to
look at firm-level competitiveness and examine the effect of policies supporting supply management on the firm environment.
CHAPTER THREE - RESEARCH DESIGN

3.1 Introduction

The purpose of this chapter is to describe the philosophy, approach, and design used in this research. Section 3.2 describes the researcher’s philosophy and the realist approach used in this research. Section 3.3 describes the qualitative approach to research, the case study research method, and the ways to build theory using the case method of research. Section 3.4 provides detail about the case method used in this research and discussed the appropriateness of the method for this research and the strategies for building quality into the case method of research. Section 3.4 also contains the case research protocol that documents details important to the quality of this research including (but not limited to) the study propositions and details regarding the preparation for and collection of evidence in this research. Section 3.5 provides a chapter summary.

3.2 Research Philosophy and Approach

The researcher views the perceptions of humans as their reality; managers’ realities are the basis on which their decisions are made and their actions are taken. Thus, the researcher sees both the perceptions and the actions of others as those that make sense given the reality they perceive. This includes the idea that individuals observe their external environment and then make interpretations and decisions based on these observations and interpretations. Two contexts in which these decisions are made are important; observations and interpretations are grounded in the context of the external environment and the context of time. A realist position has been recognized as useful in management research; in the words of Godfrey & Hill (1995), the purpose of strategic management “rests upon its ability to inform managerial action” (p. 532).
Understanding context using a realist approach, therefore, can be useful when trying to understand practical, managerial problems.

Further, a realist approach places the researcher in the role of an interpreter and, as such, researcher judgements are a part of the research process. To take on this interpretive role, the research method is considered a “tool to assist judgment” (Locke, 2001, p.9). The grounded theoretical approach to research using case study method allows the researcher to move between the logico-deductive mode and an inductive mode to build theory in a space where information is limited (Locke, 2001, p. 130). Locke notes that a grounded theoretical approach to research is useful for management researchers because it is a “combination of science, subjectivity and interpretivism” (p. 130) that allows them to “move thoughtfully between operational procedures, experiences of organization and work encapsulated in data documents, and theoretical outcomes” (p.131). This approach gives the researcher flexibility that is particularly useful when investigating practical problems in real world settings.

It is important to consider assumptions in the approach of this research vis-à-vis the approach that is dominant in economics. The work of many economists has been described as investigating decisions made by rational individuals based on the “exclusive pursuit of self-interest” (Sen, 2005, p. 5). This assumption about how economists understand what is rational can be contrasted with the experience of many managers, including that of the author of this research. As Sen (2005) writes: “by living in a society, one develops possible reasons for considering other people’s goals as well, which takes one beyond an exclusive concentration on one’s own goals, not to mention the single-minded pursuit of one’s own self interest” (p. 5). Managers often make decisions considering that the firm is part of a community and, therefore, may take others into account when as they make decisions. This means that their decisions may
not always be considered rational from an economic approach. This means that a management researcher may be more inclined to comment on how managers make decisions under particular circumstances rather than on discussing whether or not these are rational decisions to maximize self-interest. The assumption of the management researcher is that decisions can be made for other reasons, not just for self-interest, and still be considered a good decision.

3.3 Qualitative Approach to Research

Bryman (1984) wrote that qualitative inquiry is “a journey of discovering rather than one of verification” (cf. Goulding, 2002, p. 16). Qualitative research has been described as a form of social inquiry that relies mainly on qualitative data and often attempts to understand the meaning and actions of human beings (Schwandt, 2007). Berg (2009) noted that qualitative research is “about meanings, concepts, definitions, characteristics, metaphors, symbols, and descriptions of things” (p.3) and argued it is useful to consider the merits of qualitative research rather than debate the superiority of the approach over another.

Creswell (2007) summarizes a number of assumptions about qualitative research that are important features of qualitative studies. First, the ontological assumptions of qualitative research observe reality as subjective and multiple according to participants and as a consequence, results in qualitative studies are shared using the language of participants (p. 17). Second, an epistemological assumption is that the researcher will become close to the context being researched and will spend time in the field in order to understand it. Third, axiological assumptions mean that the researcher may discuss values that shape interpretations and may share and report their values. Fourth, rhetorical assumptions of qualitative research mean the researcher will use the “language of qualitative research” (p. 17) and may sometimes rely on the
participants in a study to communicate what is meant by a term. Fifth, methodological assumptions mean that inductive logic is used to study data in its context and the design of the study may emerge over the research process. These assumptions become the “stance” (Creswell, 2007, p. 19) that the researcher takes when choosing this approach.

A qualitative approach to inquiry was selected for this study for two reasons. First, according to Creswell (2007), qualitative research methods are particularly suited to problems for which: existing theoretical explanations are insufficient to explain a phenomenon; existing theoretical explanations do not apply; or, existing theories cannot be extended to a specific area of interest. In the literature review, it was established that existing knowledge about the specific, supply-managed environment and the potential impact on meat processing firm competitiveness was largely found in the applied economics and public policy literature and this literature has not adequately addressed firm-level competitiveness in this environment nor has it addressed how firm capabilities may help firms continue to operate. Second, despite recommendations by some researchers, there are no theoretical frameworks that may help explain at the firm-level how firms succeed in a specific regulatory environment where there may be: a limit to the supply of animal protein available for processing; an impact on partnerships or collaborative activity; a possible impact on the capabilities developed by firms to support their firm activities; or, a possible impact on the types of strategies that managers can pursue in the marketplace.
3.3.1 Case Study Research

Case study research\textsuperscript{13} is a method of qualitative research that has been used for decades in the social sciences and Locke (2001) has called the method one of the most difficult research approaches to distinguish. Even terminology around the method varies subtly but importantly; even the terminology varies—in particular when comparing older to newer academic work—but the goals motivating the use of the method are often similar. Schwandt (2007) refers to case study research as a strategy for conducting social inquiry and notes that in this method the case is central instead of a single variable; he also cites Stake’s opinion that case study research is to “generate knowledge of the particular” (as cited in Schwandt, 2007, p. 28). Eisenhardt (1989) has also used the term strategy describing case study research “focuses on understanding the dynamics present within single settings” (p. 534). Stake (1994) has noted that a case study “is not a methodological choice, but a choice of object to be studied” (as cited in Locke, 2001, p16). Locke (2001) noted that the case study method has been characterized in a way that overlaps with many other qualitative research approaches, but all could be considered naturalistic inquiries (p. 15). Glaser (1978) also noted that the case study research method is just one of many ways that researchers can collect evidence using a grounded theoretical approach (as cited in Goulding, 2002, p. 56), just as cases can also be used for collecting evidence in other approaches.

Literature about case study research reveals different interpretations about the definition of case studies but this variety can be viewed as strength of the flexibility of the method for

\textsuperscript{13} The terms case research method and case study research and case research study method are used interchangeably. The terms tend to vary by author, but each term has come to mean a qualitative method for social inquiry. Note that these terms are distinct from teaching or research cases that refer to a specific unit of analysis (Schwandt, 2007).
social science research. Case research is pluralistically defined. (Locke, 2001) and Yin (2009) have noted that the boundaries between various research methods are not always sharp and there are large overlaps in terms of their applicability. It is the responsibility of the researcher, indicates Yin, “to avoid gross misfits” (Yin, 2009, p. 8) and apply the correct type of social science research method. Berg (2009) also acknowledges that case study method is understood in various ways and used extensively across many disciplines (p. 317). This results in many ways of conceptualizing and discussing the method and its procedures but this does allow researcher flexibility although it places responsibility with the researchers to explain the choice of method.

This researcher sees the case research as a way to describe a situation using a narrative and the words of the participants to the extent this is possible. The narrative is told to illustrate a variety of perspectives about reality and, specifically in this research, to illustrate perspectives about the way the external environment is viewed and how decisions are made within this environment. The researcher is given the responsibility to interpret when the words of participants are unclear, but is also given the responsibility to interrogate interpretations when meaning is unclear.

3.3.2 Building Theory Using Case Study Research

There are many sources for guidance in conducting research using the case method. However, a Google Scholar search for “case study research” in June 2015 indicated over 96,000 citations for all editions of Yin’s “Case Study Research: Design and Methods” which is used across many disciplines and over 30,000 citations for Eisenhardt’s 1989 article “Building Theory from Case Study Research” which focuses on the management discipline. These two authors describe what is necessary when conducting case study research and discuss the use of case
study method in management and organizational research. As such, these two sources form the basis for the detailed design used in this research.

Both Eisenhardt (1989) and Yin (2009) outline the process for case study research with slight differences, demonstrating how knowledge about the method has evolved over the last two decades. When planning and designing case research, Yin (2009) indicates that theory development is important because relevant field contacts are dependent upon understanding some relevant theory (p. 35). Yin indicates this represents a point of departure from ethnographies and grounded theory because using case research method will force researchers to consider theory before they begin collecting evidence. Yin notes that the theory consulted could be grand or descriptive in nature but either will help the researcher plan the study. Eisenhardt (1989) insists that research designed to build theory should begin as close as possible to no theory while Yin does argue that propositions may be a good idea because they may help the researcher “move in the right direction” (p. 28). While some studies have no reason for propositions, Yin argues, even these studies have a purpose (Yin, 2009, p. 28).

The role of the researcher in using case research method is also discussed by scholars: Mintzberg (2005) says that “theory development is really about discovering patterns...recognizing similarities in things that appear dissimilar to others...making unexpected connections” (p. 369); alternatively, Eisenhardt (1989) notes, “it is impossible to achieve (an) ideal of a clean theoretical slate” (p. 536) and recommends that researchers should avoid using the term grounded theory unless following the Glaser & Strauss (1967) approach (Eisenhardt & Graebner, 2007).
Table 3.1 summarizes three theoretical contexts and the purpose for using of case research method in each. In this research, there is no existing theory that will help us describe or think about firm-level capabilities as they may relate to the presence or absence of policies supporting supply management in the external environment; the goal of this research is to describe and explain how firm capabilities may be related to supply management policies. Appendix F also outlines in greater detail the approaches that Eisenhardt (1989) and Yin (2009) take to the activities involved in using the case research method.

### Table 3.1. Theoretical Contexts and Research Goals for Case Research Method

<table>
<thead>
<tr>
<th>Existing Theory?</th>
<th>No Existing Theory</th>
<th>Some Theory</th>
<th>Specific Theory(ies)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Goal of Research?</td>
<td>To Explain</td>
<td>To augment.</td>
<td>To augment.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>To test.</td>
<td>To test or validate.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>To explain.</td>
<td>To synthesize.</td>
</tr>
</tbody>
</table>

Others have also discussed the importance of using case research method specifically in research about firm behaviour and the agri-food sector. (Westgren & Zering, 1998) note that case research is particularly appropriate for “detailed examination of the causes of variation in behavior” (p. 417) in agribusiness research. These authors note that agribusiness management researchers have a tradition of working with firms in the sector and should not miss the chance to take advantage of “unique access in building theory from an exploratory, inductive basis” (p. 417). Others have looked at the use of existing theory in case research method research that has the goal of building new theory and describe different approaches that can be used to accomplish this goal when studying businesses (Andersen & Kragh, 2010). The authors describe *in vivo* and *ex ante* methods, each distinguished by the role that existing theory will take in the approach employed; the *in vivo* method uses existing theories as “ inspirational sources used to frame research projects and continuously understand developments in the empirical data” (Andersen &
Kragh, 2010, p. 51) while the *ex ante* method uses “theories as language games which the researcher must learn in order to use them individually and to exploit their contradictions ‘playfully’ ” (p. 51). These authors suggest that the *in vivo* method is advisable for researchers who approach research with realist assumptions and describe the building of new theory as interpolation where “complementary theories are used continuously to refine and adjust a pre-existing theoretical framework” (p. 51) and abduction is used to decide what best explains the phenomenon in question. This research takes the in vivo approach and combines ideas from complementary management theories to help build a framework that can explain and describe firm capabilities in the meat processing industry of Ontario.

**Strengths of Using Case Research Method**

In an article about building theory from case research, Eisenhardt (1989) writes that strengths of the case research method include: it allows for new theory to be generated; it allows for emergent theory to provide testable constructs and hypotheses; and, it allows for empirical validity because the resultant theory is consistent with evidence (p. 546). Eisenhardt (1989) also notes the challenges of using the case research method: researchers may not use succinct language when discussing research; and, there is a possibility that the “theory developed only describes an idiosyncratic phenomenon or that the theorist is unable to raise the level of generality of the theory” (p. 547); further, Eisenhardt supports research that produces “grand” (p. 547) theories, however, does also acknowledge that multiple studies may be necessary to produce this level of generality when building theory. More recently, however, Eisenhardt & Graebner (2007) have noted that researchers must focus on justification for theory building using the case research method. Researchers must stress why the research question is important or they must stress why the phenomenon in question cannot be explained by existing theory or explain
the shortfalls of existing theoretical explanations (p. 26); in this research, there is no firm-level theory that can help describe capabilities of successful firms in specific regulatory environments characterized by supply management policies. Further detail is given to describe the differences between two types of theory building to help researchers think about and justify their use of each type; Table 3.2 summarizes the two types.

**Table 3.2. Differences Between Two Types of Theory Building**

<table>
<thead>
<tr>
<th>Nature of Research Question</th>
<th>Inductive Case Research</th>
<th>Phenomenon-Driven Research</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frame research in context of theory</td>
<td>Frame research based on importance to phenomenon or based on lack of existing theory</td>
<td></td>
</tr>
<tr>
<td>Demonstrate that new theory needed</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scope</td>
<td>Tight Nested within context of existing theory</td>
<td>Broad (give researcher flexibility)</td>
</tr>
<tr>
<td>Justification</td>
<td>Based on ability of qualitative data to offer insights where quantitative assessment cannot</td>
<td>Based on: - importance of phenomenon - no viable theory - no empirical evidence</td>
</tr>
<tr>
<td>Example</td>
<td>(Greenwood &amp; Suddaby, 2006)</td>
<td>(Bingham &amp; Eisenhardt, 2006)</td>
</tr>
</tbody>
</table>

Based on Eisenhardt & Graebner (2007)

**Challenges of Using Case Research Method**

There are a number of challenges in using the case research method. These concerns are itemized in Table 3.3 along with responses from researchers experienced with the method. As Eisenhardt and Graebner (2007) state: “the key here is to convey the rigor, creativity, and open-mindedness of the research processes while sidestepping confusion and philosophical pitfalls” (p. 30).
<table>
<thead>
<tr>
<th>Concern</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lack of rigour.</td>
<td>Yin (2009) writes about detailed procedures in order to assist case study researchers and enhance the rigour in use of the method.</td>
</tr>
<tr>
<td>Confusion between research and teaching cases.</td>
<td>Yin (2009) advises that the distinction must be clearly stated in all case research method work.</td>
</tr>
<tr>
<td>Bias of researcher.</td>
<td>Yin (2009) notes this is not dissimilar to experiments; use strategies to minimize bias.</td>
</tr>
<tr>
<td>Case research can take a large amount of time.</td>
<td>Yin (2009) offers ideas for organizing analysis and reporting that can both make better use of resources.</td>
</tr>
<tr>
<td>Case studies may not be able to establish causal relationships.</td>
<td>Method can answer questions in more depth and complement experiments (Yin, 2009, p. 14-16).</td>
</tr>
<tr>
<td></td>
<td>Method has been called “one of the best (if not the best) of the bridges from rich qualitative evidence to mainstream deductive research” (Eisenhardt &amp; Graebner, 2007, p. 25).</td>
</tr>
<tr>
<td>Case selection is not representative of population.</td>
<td>Cases selected for their potential to offer theoretical insights (Eisenhardt &amp; Graebner, 2007) and their purpose is not to test theory but to develop it.</td>
</tr>
<tr>
<td></td>
<td>There are variations in the reason for case selection among studies and each requires thoughtful selection of cases; examples include explaining, describing, illustrating, or enlightening (Yin, 2009, p. 19-20).</td>
</tr>
<tr>
<td></td>
<td>Theoretical sampling and replication logic are approaches appropriate for the method.</td>
</tr>
<tr>
<td>Complete, descriptive narratives may impossible to achieve in multiple case research.</td>
<td>Summarize evidence in tables and arrange text around theory (Eisenhardt &amp; Graebner, 2007, p. 29).</td>
</tr>
<tr>
<td>“Immediate” data reduction (Locke, 2001), p. 104), loss of micro processes</td>
<td>A detailed process of analysis forces researcher to spend time with data (Yin, 2009) and reduces this possibility.</td>
</tr>
<tr>
<td></td>
<td>Working with mentors or teams can challenge researcher to re-examine data</td>
</tr>
</tbody>
</table>
3.3.3 Increasing Research Quality using Case Research Method

Because of the challenges in any method of research, there are criteria that can be used to address challenges and increase quality in case study research. (Lincoln, 1995) cautions researchers to remember that the “criteria proposed (for qualitative research quality) relate almost solely to the inquiry community” (p. 279) using the approach; this means that the criteria are incommensurable with criteria used in approaches that are not naturalistic or interpretivist. This author does, however, stress that “conversations about criteria are important…if for no better reason than to engage and elaborate a complex and interesting dialogue and to create a space for a shared discourse” (Lincoln, 1995, p. 276). Others also defend the use of terminology from other approaches in an effort to share language. Yin (2009) suggests that the design of case study research be supported by logic and be judged according to logical concepts like trustworthiness, credibility, confirmability and data dependability (p. 40); he also discusses validity (construct, internal and external) and reliability in the context of case method research. Hirschman’s (1986) also wrote about using evaluative criteria when conducting humanistic inquiry. Hirschman’s criteria include confirmability, dependability, transferability and credibility. Table 3.4 identifies evaluative criteria that are recommended by scholars when judging quality in a case study research design. The terminology varies somewhat according to author and traditions of their specific field of study; these terms have been assembled for comparison purposes in Table 3.4 and have been placed in groupings where term meanings or strategies for addressing the criterion appear similar.
Table 3.4. Evaluative Criteria for Case Study Research

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Research Design Strategies to Address Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trustworthiness</td>
<td>- constructivist/naturalistic paradigm equivalent to rigour in scientific paradigm (Lincoln, 1995)</td>
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<tr>
<td>(Lincoln, 1985)</td>
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<tr>
<td>Construct Validity</td>
<td>- multiple sources of evidence will be used during data collection when possible, for example, interview data, documentation, survey data from food industry competitiveness study (Yin, 2009, p. 102) - chain of evidence will be established using reports, databases, citations, and protocols that link to case study questions (Yin, 2009, p. 123) - involve participants in review of draft case study reports (Yin, 2009, 41) - use theoretical or population sampling strategies (Van de Ven, 2007, p. 179-181)</td>
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<tr>
<td>(Yin, 2009)</td>
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<tr>
<td>Internal Validity</td>
<td>- criterion is less important for descriptive cases where there is no attempt to establish causality (Yin, 2009, p. 43) - use rival explanations, pattern matching, explanation building and logic models to question inferences made during data analysis (Yin, 2009, p. 42) - view participants in research as competent and qualified to render judgements about truth (Hirschman, 1986, p. 244) - member checks provide verification of the data and interpretations as well as potentially offering additional explanatory data (Bitsch, 2005)- consider similarity and dissimilarity of observations, scope and precision of generalization, number of observations and known relevance (Van de Ven, 2007) - multiple realities are possible; use member checks to evaluate findings (Hirschman, 1986, p. 244)</td>
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<tr>
<td>(Yin, 2009)</td>
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<td>Credibility</td>
<td>- whether or not two contexts are judged the same is only known post hoc (Hirschman, 1986, p. 245); search for continuity across field sites must also recognize that not two contexts are ever identical - coding reviewed by key organizational informants (van de Ven, 2007, p. 219)</td>
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<tr>
<td>(Hirschman, 1986)</td>
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<tr>
<td>(Bitsch, 2005)</td>
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<tr>
<td>Fairness</td>
<td>- use replication logic in research design when selecting cases in various contexts; generalization is analytic not statistical (Yin, 2009, p. 43)</td>
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<td>(Lincoln, 1985)</td>
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<tr>
<td>Plausability</td>
<td>- develop and follow case study protocol and case study database when collecting data (Yin, 2009) - use multiple human investigators when possible; recognize that interpretive elements may be consistent over time for single investigator (Hirschman, 1986, p. 246) - coding by two or more researchers (Van de Ven, 2007)</td>
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<td>(Van de Ven, 2007)</td>
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<tr>
<td>External Validity</td>
<td></td>
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<tr>
<td>Transferability</td>
<td>- use categorical data in research design when selecting cases in various contexts; generalization is analytic not statistical (Yin, 2009, p. 43)</td>
</tr>
<tr>
<td>(Hirschman, 1986)</td>
<td></td>
</tr>
<tr>
<td>Eduative Authenticity</td>
<td>- develop and follow case study protocol and case study database when collecting data (Yin, 2009) - use multiple human investigators when possible; recognize that interpretive elements may be consistent over time for single investigator (Hirschman, 1986, p. 246) - coding by two or more researchers (Van de Ven, 2007)</td>
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<tr>
<td>(Lincoln, 1985)</td>
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</table>
3.4 Case Study Method in this Research

In qualitative research there are many methods that can be used to answer research questions and to design studies (Creswell, 2007) and the case research method is just one of many. It is important to define this method of research broadly and examine the strengths and challenges of the method because there are complexities and variations in the way the case study method of research is used and interpreted, as with other methods.

In the literature review, research about firm success and external environments was reviewed, however, little (if any) theory has been applied to explain how supply management policies in the external environment may affect firm-level success or firm capabilities. This presents an opportunity to apply multiple management theories in order to examine the phenomenon and describe a particular situation. Van de Ven (1989) has observed that “tensions, inconsistencies, and contradictions between theories” (p. 488) offer researchers opportunities to develop better and more encompassing theories. The use of case research method is suitable for such an approach because it will allow the researcher the flexibility to examine these tensions throughout the research process. The case research method can provide flexibility to build theory during an iterative process involving multiple stages; it is important to review the objectives, strengths and challenges of the case research method as well as the ways that the research design

<table>
<thead>
<tr>
<th>Confirmability (Hirschman, 1986)</th>
<th>- interpretations by researcher expected to be supported by data and conclusions be logical; use of auditor(s) similar to review process (Hirschman, 1986, p. 247)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tactical authenticity (Lincoln, 1985)</td>
<td>- practice interpreting by keeping notes and methodological logs to assist with reflection process (Hirschman, 1986, p. 242)</td>
</tr>
<tr>
<td>Reflexivity (Van de Ven, 2007)</td>
<td>- be sensitive to others’ viewpoints and balance internal reflection with external focus (van de Ven, 2007, p. 291)</td>
</tr>
</tbody>
</table>
can deliver a deep understanding of the “practical problems facing the (management) profession” (Van de Ven, 1989, p. 486).

3.4.1 Appropriateness of Case Research Method for this Research

In this research, the case research method offers a practical approach to study a specific context in order to describe a phenomenon and create an explanatory framework. The case research method allows the perceptions of the participants to surface and allows the researcher to logically adapt the process of data collection and analysis if and when needed for unanticipated events. The case research method has seen wide use in organizational studies where the method is used to focus at the macro, organizational or at the industry-level of analysis (Locke, 2001, p. 16).

One advantage of the case method of research is its flexibility. Figure 3.1 contains a diagram from Yin (2009, p. 57) that illustrates the processes and activities that are part of the case study method of research. Figure 3.1 illustrates that while the researcher is conducting case studies under the preparation, collection and analysis phase, the researcher is also writing reports, thinking about theory development and modifying theory. This is important because the descriptions in a written document are necessarily linear, however, the research process is iterative and cyclical and this process allows the researcher to be flexible when it is necessary or prudent when researching real world phenomena.
3.4.2 Addressing Quality Criteria

An important part of the study design is making sure there are strategies to implement quality criteria in the study process. The case study protocol is the tool that outlines the processes to achieve the research logic and the quality strategies; the quality strategies used in this research are described next.

First, construct validity will be addressed through the inclusion of multiple sources as evidence. Planned sources of evidence for each case will include interview data, documents available on the internet and elsewhere. As is typical with case study method, the researcher also has flexibility to collect other information as it becomes available; examples of this type of data could include media coverage related to the case or the context and information that may be available from interviewees about their firm. Second, construct validity will be established early and maintained through the research process by documenting and writing throughout the
research phases. Third, construct validity will be increased through communicating of preliminary results with participants and industry groups; this process offers the benefit of professional courtesy but also allows for disagreements necessitating the collection of further evidence (Yin, 2009, p. 182). As Van de Ven (2007) notes, engaging with stakeholders about research is not designed to gain consensus or simplify the research process but rather to gain a deeper understanding about a complex problem than is offered by other approaches (p. 29).

Internal validity or credibility will be built into the research design by presenting preliminary results to two stakeholder groups: first, policy makers at OMAFRA who are responsible for advising government about policy options to support industry competitiveness; and second, industry groups where both participants and non-participants in the study will be in attendance. The work of Yin (2009) and M.B. Miles and Huberman (1994) will be used to guide the search for patterns or when isolating differences between cases.

The criterion of external validity (or transferability) is important because the goal of case study research is not the same as survey research. Yin (2009) notes that “survey research relies on statistical generalization, whereas case studies (as with experiments) rely on analytic generalization…(where) the investigator is striving to generalize a particular set of results to some broader theory” (p. 43). In this study, analytic generalization to address transferability will use replication logic when selecting cases. The researcher will select cases that will replicate a general set of results (called literal replication) or cases that will challenge these results (called theoretical replications) until data saturation is reached—that is, until the same observations are being made in the context examined and no new information is being obtained in further case selection. (M. B. Miles & Huberman, 1994) notes that researchers must deal with the issue “conceptually” (p. 30) and ask if the number of cases gives “confidence in our analytic
generalizations” (p. 30). Yin (2009) also reminds case method researchers that they are using replication logic that is based on a “discretionary, judgmental choice” (p. 58) similar to designating “p<.05” or “p<.10” (p. 58) in choosing effect sizes, for example; Van de Ven notes that statistical significance should be confused with practical significance” (p. 184) and advises researchers to use the idea of practical significance when choosing a sample size. Others have discussed trying to select cases that would present some variation in the sampling strategy in order to represent diversity and suggest multiple perspectives (Creswell, 2007, p. 120). Thus, this researcher will approach the number of cases examined in each context by considering these ideas and according to the issues that arise during data collection, possibly including the need for certainty or the need for further detail (Yin, 2009, p. 58).

Reliability (or dependability) will be addressed in two ways. First, dependability will be established by using a case study database to manage data and a case study protocol to direct the steps in and details of the research. Yin (2009) gives procedural guidelines for these tools and argues that researchers who use these protocols will increase the reliability of the study. More importantly, dependability will also be addressed by working closely with the thesis advisor who can provide an experienced opinion about the evidence, the case study database, the representations of data arising from analysis, the emerging propositions, and the developing theory. For example, although the researcher did not repeat this research, she was responsible for a larger study investigating the competitiveness of meat processing firms in Ontario. In this larger study, a survey and additional interviews were used to gather evidence about food processing industry opportunities and threats in variety of sectors. Results for various industry groups provided a way to gauge the dependability of the results from this research. Given that
this research is a dissertation of a single researcher, this last strategy to address dependability is particularly important.

The concept of reliability (or dependability) is also linked with a related concept of confirmability; that is, could others examining the evidence collected reach the same conclusions? Yin (2009) and Hirschman (1986) recommend that researchers practice interpretation and document notes about methods used throughout the research process to allow auditors to follow the logic that underpins the theory developed. The researcher maintained reliability by creating and maintaining notes and using maximum transparency when describing the steps used in the research; this allowed the advisor and readers to judge for themselves the reliability achieved.

A final note is necessary regarding the case study research design. Yin (2009) notes that researchers must be open to modifying the design of the study based on new discoveries as it proceeds but must understand the nature of the alteration and not lessen the rigour of the study procedures (p. 62). In this study, documentation of procedures and writing of methodological notes as the study proceeded were tools used to ensure focus on theoretical concerns and to document logic, reflections and concerns that arose during data collection and analysis. Method notes also provided an indication of when data saturation was reached during data collection.

The use of a case study protocol is important to organize the iterative activities of case study research. Yin (2009) states that the case study protocol is an essential component for multiple-case studies because the information that can be collected about any one case and the number of case study questions are limited (p. 79-81). The case study protocol presented here was created to achieve the following:
• to keep the researcher focused on the central research questions,
• to help organize the research process, and
• to help the researcher anticipate problems that might arise during the research process.

3.4.3 Case Research Protocol

This section describes the case research protocol developed to guide the researcher. This description includes the following: the background and relevance of the study; the logic, assumptions and propositions used in the study; a definition of the unit of analysis in the study; a description of case selection and the evidence collection schedule; a description of the field procedures used in data collection including interview procedures; and, a description of the ways in which evidence was documented.

**Background and relevance of research.**

This research project is related to a larger research project titled “Assessing the Competitiveness of Ontario Food Processing Industry: A Capability Development and Stakeholder Engagement Approach” and funded by the Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA).

Policies supporting supply management have been criticized for a variety of reasons; these criticisms argue that because supply management policies limit the quantity of resources and control the pricing of resources, firms buying these resources are less competitive. There is no firm-level research that describes the capabilities, however, that firms use to compete in environments with supply management regulations. Because research in strategic management (Teece, 2007) and marketing (Morgan, 2012) suggest that firm capabilities may be important to firm success, the goal of this research is to describe the capabilities used by Ontario meat
processing firms to bring products, services and technology to markets and to investigate these capabilities with reference to the specific regulatory context (supply managed or non-supply managed) from which firms procure their inputs.

**Logic model, assumptions and propositions**

*Logic model.*

In order to help solve the problems in this research, the logic in examining the problem is explained next. Yin (2009) notes that logic models are useful in linking the data to the propositions.

*Figure 3.2* displays an illustration of the value chain of a firm according to the work of Porter and Millar (1985). This figure shows how scholars have conceptualized the activities that are controlled by the firm that allow firms to add value to products services and technology. Controllable activities include both *primary* activities that relate directly to transformation of inputs to outputs and *support* activities that are indirectly related to transformation of inputs to outputs. In this research, it is assumed that purchasing activities are part of inbound logistics activities and are considered primary activities in the firm value chain. In supply managed contexts, procurement (support) activities could be specialized knowledge that is required to support purchasing (inbound logistics) activities related to acquiring inputs so it is important to distinguish where purchasing is located in the firm value chain.
Figure 3.2. Value Chain of Firm (Porter & Millar, 1985).
This figure shows the primary and support activities of firms that allow firms to transform inputs into outputs. Primary activities of firms relate directly to the production of outputs and support activities of firms provide support for primary activities. Purchasing activities are considered in this research to be primary activities that reside as part of inbound logistics activities.

There is widespread agreement in the strategic management literature that firm capabilities are important in achieving competitive advantage and success at the firm-level; they tend to get built in order to build competitive advantage based on superior quality, superior efficiency, superior innovation, or superior customer responsiveness (Hill & Jones, 2014). In Figure 3.2, firm capabilities could, therefore, be thought of as residing in or spanning firm primary and support activities; firm capabilities do not necessarily reside in any one specific firm activity but may exist as various skills, processes or mixtures of skills and competences. van Duren and Sparling (1998) have argued that capabilities are “organizational strengths that require integration or a combination of resources...(and)...may be contained within a functional area of the business (e.g. marketing, operations, logistics) or...span various functions” (p. 482).
To consider the possible impact of the external environment of the firm, Figure 3.3 builds further with the addition of the general external environment and the specific regulatory environment. This figure illustrates that existing knowledge indicates that public policies supporting supply management will affect the price and quantity of inputs and outputs of firms in supply managed contexts. Little knowledge exists, however, about how these policies may affect firm capabilities that are responsible for supporting firm competitive advantage and firm success; this gap in knowledge is illustrated in Figure 3.3 with a dashed box and arrow pointing downward.

Figure 3.3. Model of Value Chain and Regulatory Context with Supply-Management.
In the meat processing industry of Ontario, the external and regulatory environments are considered factors uncontrollable by the firm that may affect firm performance. Existing knowledge suggests that the supply-managed regulatory environments of some Ontario meat processors may affect the quantity and price of both firm inputs and outputs; firm inputs are affected because supply management regulations affect the price and quantity of supply-managed inputs and firm outputs are affected, argue many, because quota limits on the amount of product that can be processed by firms and offered to consumers and the price of products must be higher to compensate for higher inputs prices. This is illustrated in the figure with arrows and text pointing downward from the external environment. The dashed arrow in the
middle shows the gap in knowledge about how the specific regulatory environment (supply management policies) may affect firm capabilities that reside in or span the activities of the firm value chain.

Assumptions of the model.
Prior to stating propositions, the assumptions of the Model of Value Chain and Environmental (Regulatory) Context illustrated in Figure 3.3 are as follows:

1. First, firms and their managers organize their activities in order to meet firm goals; one goal of firms is firm survival by being competitive.
2. Second, managers in meat processing firms are those individuals who have the responsibility and authority to manage activities and manage resources to meet the goals of the firm.
3. Third, the goals of a firm can be framed in a variety of ways; that is, goals of a firm could use economic (as well as, environmental or social measures). Each firm is able to decide if it’s competitive and success can also be judged using a variety of measures.
4. Fourth, firms that were actively operating in the meat processing industry at the time of data collection are considered *sufficiently successful* in reaching their firm goals, and were considered *competitive* at the time data was collected because they were in operation, and were doing *well* based on their existence for more than five years prior to data collection (a reasonable period of time). This assumption is important because the focus of the research is not on competitiveness, but on the capabilities firms have used to continue operating.

The Model of Value Chain and Regulatory Context with Supply-Management in Figure 3.3 provides a basis for propositions about firm capabilities. The first set of propositions relate to
the input stage of the value chain during which inputs are procured by the meat processing firms from suppliers. The second set of propositions are located at the transformation stage where inputs are transformed into outputs and value is added. The third set of propositions are located at the output stage where products, services and technology leave the firm following the transformation and enter the marketplace. The fourth set of propositions cover those that are more likely to be found in support activities of the firm.

**Propositions.**

Although Yin (2009) has noted that some exploratory research may have legitimate reasons for not generating propositions, he also notes every study should state a purpose (p. 28). The propositions that are described next were developed using the Model of Value Chain, Firm, Capabilities, and Competitive Advantage in Time and Environmental (Regulatory) Contexts. This model makes use of existing knowledge about how policies supporting supply management affect the quantity and price of inputs and outputs may impact firm success despite the fact that much of what is known about the impact of supply management policies on firm success is not based on evidence generated through research. In addition, there is little knowledge about the impact of supply management policies on firm capabilities related to internal value chain activities of the firm. Since there is no knowledge to sufficiently explain how firms succeed in environments with or without supply management, the study propositions are based on the best information available to the researcher.

As illustrated in the Model of Value Chain, Firm Capabilities and Competitive Advantage in Time and Environmental (Regulatory) Contexts, the propositions that follow are stated with reference to the regulatory contexts in which Ontario meat processors may operate: the first context (SM) is the specific supply-managed environment where firms only procure
their main meat inputs through supply managed system (this would include imports obtained using the permit system and quotas); the second context (NSM) is the specific non-supply managed environment comprised of firms that procure meat inputs not covered by supply management policies; and, the third context (BOTH) covers those firms that procure inputs from both of the first two contexts, that is, firms that procure both supply managed and non-supply managed inputs. The propositions in this research are organized by stage of the value chain, however, it important to remind the reader that the capabilities that are the subject of investigation may span more than one primary or support activity of the value chain. The propositions are presented next:

**Firm capabilities at input stage of value chain.**

The best available information suggests that a regulatory context that includes public policies supporting supply management may affect the price, quantity, and quality of firm inputs. As a result of this, it is expected that:

1. **Ontario meat processing firms in the BOTH context will identify different firm capabilities used for turkey (SM) inputs and for pork (NSM) inputs required in activities at the input stage of the firm value chain.** For example, BOTH firms may identify that there are specific skills used in negotiating price, quality and volume for pork (NSM inputs) but different skills are used for turkey (SM inputs). It is assumed that firms in the SM and NSM contexts would not recognize differences in capabilities because these firms process only inputs from a single context.
Firm capabilities at transformation stage of value chain.
Because Resource-Based Theory posits that firms are more likely to make efficient use of resources that are in short supply, of resources that are less easily replaced, or of resources that are of higher value than others, it is expected that:

2. Ontario meat processing firms in the BOTH context will identify different capabilities needed for turkey (SM) products and for pork (NSM) products required in activities at the transformation stage of the firm value chain. These firms may identify differences in capabilities needed to build competitive advantage with products using turkey (SM products) and those capabilities needed to build competitive advantage using pork (NSM products).

3. Ontario meat processing firms in the SM context will identify capabilities related to the efficient use of turkey products during the transformation stage of the value chain. Firms in the SM context may have capabilities related to distinct operational capabilities that support efficient processing of turkey, support minimizing of waste of turkey, or support recipe development for turkey products to maximize the use of turkey protein.

4. Ontario meat processing firms in the NSM context will identify capabilities related to developing innovative pork products. Firms in the NSM context firms may have capabilities related to distinct operational skills that support rapid and repeated development of new or expanded pork product lines.

Firm capabilities at output stage of value chain.
The best available information suggests that firms that process SM proteins may have to bring products to the market at a higher price than they would if supply management regulations did not apply to inputs. In addition, firms processing SM proteins may not be able to grow their
sales volume due to restrictions on the quantity of inputs. And, firms processing SM proteins may also be limited in the attributes of the inputs they acquire (for example, organic inputs) which would, as a result, limit their ability to market products to new or niche markets requiring these attributes. Based on these same arguments, restrictions of price, quantity, and quality should not be issues for NSM firms. It is, therefore, expected that:

5. Ontario meat processing **firms in the BOTH context will identify that different firm capabilities may be required in activities at the output stage of the firm value chain for turkey (SM) products and for pork (NSM) products.** For example, BOTH firms may identify different capabilities used to market outputs requiring inputs from the SM context than for NSM products. For example, BOTH firms may identify that the marketing capabilities (for example, customer responsiveness, identification of niche markets) needed to market processed turkey (SM) products are different than to market processed pork (NSM) products.

**Firm capabilities related to support activities in value chain.**

Support activities in the firm value chain can include various general, management capabilities related to firm strategy and knowledge about the industry environment. Firms in all contexts of the Ontario meat processing industry are expected to have knowledge that informs their chosen strategy. However, firms in the SM context may have knowledge and expertise about issues related to SM regulations that affect turkey protein. Further, firms in the NSM context may have knowledge about a greater variety of strategies than SM firms because there may be a wider number of markets available to products using only pork protein. As a result of this logic, it is expected that:
6. Ontario meat processing firms in the SM context will identify capabilities related to SM regulations in the support activities of the firm value chain. For example, it is expected that firms processing turkey only (SM) may have expert knowledge capabilities about the SM regulatory system that affects their industry.

7. Ontario meat processing firms in the NSM context will identify knowledge capabilities related to new markets in the support activities of the firm value chain. For example, it is expected that firms processing pork only (NSM) may have capabilities related to strategic external assessment to help them assess opportunities (or threats).

8. Ontario meat processing firms in the BOTH context will identify capabilities in the support activities of the value chain that may be distinct for pork (NSM) and turkey (SM) processing. For example, it is expected that firms processing both turkey and pork products may identify knowledge capabilities that are distinct for SM and NSM products.

Unit of analysis.

Yin (2009) notes that what constitutes a “case” can pose a problem in studies (p. 29) but states that a case is the same as the unit of analysis. In this study, each unit of analysis or case is the firms in the study; the cases in the study will each be found in one of three contexts. Figure 3.4 shows the multiple case design for this research and divides the meat processing industry into the three contexts. The researcher will use replication logic to select firms for analysis in the study: literal replication will be used within each context to locate and choose cases that are expected to have similarities in each context; and, theoretical replication provides the basis for choosing three contexts where results are expected to differ due to the context in which inputs are procured.
**Defining contexts.**

Figure 3.4 illustrates the three contexts in which meat processors in Ontario can operate. The first context “SM” is the context in which firms procure inputs only from the supply managed system. This context would include firms that process turkey and chicken. The second context “NSM” includes firms that procures no inputs from a supply managed system. This context would include processors of beef, pork, and others (for example, elk, sheep or goat). The third context “BOTH” includes firms that procure inputs from both supply managed and non-supply managed contexts.

![Diagram of contexts]

**Figure 3.4. Multiple Case Design in this Research based on work of Yin, (2009, p. 46).**

This illustration shows the multiple case design used in this research. Three contexts of interest are identified: the SM context where firms use supply managed protein inputs only; the NSM context where firms use no protein inputs from supply managed system; and, the BOTH context where firms use protein inputs from both supply managed and non-supply managed systems.

There are several animal proteins that are supply managed in Ontario (including chicken, turkey and eggs) and there are differences in the policies regulating production and pricing in each although the use of regulations to enforce production quotas for producers and price setting
is similar\textsuperscript{14}. It was reasoned that a single supply-managed sector would be used to avoid complications in the analysis of data by the distinct differences in supply management regulations between chicken and turkey production in Canada. As a result, the supply-managed context in this study was defined as \textit{only turkey}. Having made this decision, the researcher anticipated a challenge in using this approach because of the small number of processors in Ontario who process \textit{only turkey} that is due, in part, due to the smaller size of the turkey sector when compared with chicken.

In order to challenge explanations and offer comparisons, the environment of firms who processed \textit{only pork} was proposed as the specific non-supply-managed context in the study. It was reasoned that pork processors offered a reasonable comparison within Ontario because pork processing is also of smaller size than the beef sector. To summarize, choosing to describe capabilities in the pork and turkey processing sectors allowed the researcher to examine firms in two sectors that had a similar size relative to the largest sector in that same context. Figure 3.5 situates the pork and turkey processing industry groups in the food manufacturing sub-sector.

\textsuperscript{14} Table C2 in Appendix C outlines key differences in marketing of turkey and chicken in Canada.
Figure 3.5. Situating Turkey and Pork Processing Industry Groups in the Food Manufacturing Sub-Sector.

This figure illustrates the food manufacturing sector of which meat product manufacturing is one part; within meat product manufacturing are all animal slaughter and rendering industries and within this are found both supply-managed (SM) and non-supply-managed (NSM) industries. Turkey and Pork Processing are boldfaced; these two sectors are the SM and NSM contexts in this research.

Defining firm size.

The second criterion for selecting firms was firm size, although to a lesser degree than the regulatory context. It is recognized that smaller firms (or SMEs\(^{15}\)) may have a different managerial mindset when thinking about competitiveness than larger firms; smaller firms may also be less likely to pursue a generic cost strategy and this would affect the capabilities that they had developed. For example, smaller firms are not as likely to use a broad strategy based on costs because they lack the scale to achieve efficiencies. There is also research suggesting that the ability of smaller firms to deal with various factors in their external environment may be

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\(^{15}\) SME is an acronym commonly used to refer to Small and Medium Enterprises, although the parameters that define what comprises small and medium differ.
different from those larger firms (Sidik, 2012) who have a different resource base. Ensuring that firms of various sizes were selected in the study ensured that the researcher could look in each context to see if different sized firms described their activities differently.

The size of firms can be categorized in a number of different ways. This presents challenges when discussing results with respect to firm size\textsuperscript{16}. Industry Canada defines firm size according to full time employment as follows: \textit{micro} firms employ from one to four employees; \textit{small} firms employ from five to 99 employees; \textit{medium} firms employ from 100 to 499 employees; and, \textit{large} firms employ 500 or more employees (Industry Canada, 2012). Ontario’s Occupational Health and Safety Association (OHSA) legislation has traditionally used different firm size categories with the goal of ensuring the safety of workers in the province of Ontario; the Ontario Independent Meat Processors’ Association currently follows the OHSA categories (Nicol, 2015) and defines \textit{small} firms as having nine or fewer employees; \textit{medium} firms as having 10 to 19 employees; and, \textit{large} firms as having 20 or more employees.

Table 3.5 shows the numbers of processing plants in Ontario and Canada by firm size in 2009 using Industry Canada categories. This table identifies that most food processing in Canada and Ontario is conducted by small firms with between five and 99 employees; meat processing reflects a similar distribution of firms across size categories.

\textsuperscript{16} Gupta, Gregoriou, & Healy (2015) reported that the European Union uses widely accepted definitions for firm size categories as follows: ‘micro’ firms have fewer than 10 employees, ‘small’ firms have fewer than 50 employees, and ‘medium’ firms have fewer than 250 employees (p. 848). There are also accompanying requirements for minimum annual turnover in euros for each EU firm size category; this is not the case for Industry Canada firm size categories.
Table 3.5. Food and Meat Processing Plants in Ontario and Canada by Firm Size, June-December, 2014.

<table>
<thead>
<tr>
<th>Firm Size* (No. of Employees)</th>
<th>Canada</th>
<th>Ontario</th>
<th>Industry Size in Ontario as Percent of Canada</th>
</tr>
</thead>
<tbody>
<tr>
<td>Micro</td>
<td>1443</td>
<td>511</td>
<td>35.4%</td>
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<tr>
<td>Small</td>
<td>3667</td>
<td>1272</td>
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<tr>
<td>Medium</td>
<td>549</td>
<td>188</td>
<td>34.2%</td>
</tr>
<tr>
<td>Large</td>
<td>45</td>
<td>16</td>
<td>35.6%</td>
</tr>
<tr>
<td>Total</td>
<td>5704</td>
<td>1987</td>
<td>34.8%</td>
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<table>
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<tr>
<th>Firm Size (No. of Employees*)</th>
<th>Canada</th>
<th>Ontario</th>
<th>Industry Size in Ontario as Percent of Canada</th>
</tr>
</thead>
<tbody>
<tr>
<td>Micro</td>
<td>143</td>
<td>49</td>
<td>34.3%</td>
</tr>
<tr>
<td>Small</td>
<td>453</td>
<td>165</td>
<td>36.4%</td>
</tr>
<tr>
<td>Medium</td>
<td>108</td>
<td>40</td>
<td>37.0%</td>
</tr>
<tr>
<td>Large</td>
<td>23</td>
<td>8</td>
<td>34.8%</td>
</tr>
<tr>
<td>Total</td>
<td>727</td>
<td>262</td>
<td>36.0%</td>
</tr>
</tbody>
</table>

* Firm size categories are those used by Industry Canada.  
** Figures for number of processing plants are inflated because they include multiple firm locations for firms with more than one plant.  
Source: (Statistics Canada, 2015a)

Defining and Selecting Cases

This section discusses the type of case study that will be conducted, the unit of analysis and case selection in this study.

Type of case study.

This study is a multiple-case design. Herriott and Firestone (1983) have noted that multiple case studies may be more compelling and robust (cited by Yin, 2009, p. 53). The design used in this study is a multiple-case design as described by Yin (2009). Yin considers multiple-case designs to be robust as they can offer more compelling evidence although the design may require more extensive resources and a longer process, particularly for a single investigator. By using this study design for three meat processing contexts, the researcher can also maintain
confidentiality as per the Research Ethics Protocol by describing similarities between cases in the same context without identifying specific firm identities.

Yin (2009) advises that researchers using case research method should make clear the replication logic used in multiple case studies. Replication logic is distinct from the sampling logic used in survey methodology. Yin notes that researchers must explain “the conditions under which a particular phenomenon is likely to be found...as well as the conditions when it is not likely to be found” (p. 54). Yin (2009) notes the development of a theoretical framework will assist with case selection; theory can help to predict when similar results are expected in literal replications or to result in contrasting results in theoretical replications between case groups (p. 54). Yin (2009) also advises that cases in multiple case studies be selected based on two types of replication logic:

1. **Literal replication** is used to select cases that predict similar results (p. 54).
2. **Theoretical replication** is used to select cases that predict “contrasting results but for anticipatable reasons” (p. 54).

In this study, meat processing firms will be chosen according to both types of replication. First, literal replication will be used to select firms in each context; it is expected that firms that operate in the same specific regulatory environment will develop similar types of capabilities, however, because there are fewer firms operating in the SM and NSM contexts in the industry, there are limits to the literal replication possible by restricting data collection to these two contexts. Second, theoretical replication will be based on firm size and will help in selection of cases (firms) within each context (where possible). Replicating cases is prudent because of the structure of the meat processing industry in Ontario. Firms in different size categories may
choose different strategies by which to compete and will, as a result, may develop different types of capabilities with respect to these strategies. It is not, however, the objective of this research to determine the impact of firm size but only the goal of the replication logic to ensure that data is collected from multiple firm sizes.

*Case selection and schedule.*

Yin (2009) emphasizes that the process of screening need not be extensive (p. 91). In this study, the challenges of finding firms for the three contexts in the study was discussed. Because of the limited number of firms in some sectors of the processing industry, some challenges were expected during selection, particularly in the turkey sector where there are few firms processing turkey in Ontario.

The selection of firms for each context will not be based on probability theory or sampling logic; instead, the selection of firms will be purposive and based on replication logic as outlined earlier. Case selection will continue until data saturation is reached; that is, until no new themes are found in the analysis.

All cases in this study comprised meat processing firms operating in Ontario. Multiple sources were used to locate firms, particularly in smaller SM and NSM contexts. Firms in each of three contexts—processors of supply managed inputs, processors not using any supply managed inputs, and processors dealing with both supply managed and non-supply managed inputs—were chosen according to a number of other factors that were important to ensure evidence collection proceeded efficiently. First, cases were chosen within a reasonable driving distance (400km) from Guelph; this decision excluded processing firms located remotely that made up a minority of processing firms in Ontario as well as firms located in eastern Ontario.
Second, cases were chosen according to theoretical replication so that evidence could be collected about a variety of firm sizes in the study. Third, firms were sometimes chosen based on the availability of information on the internet about the firm in order to permit triangulation of information. And, fourth, firms had to be chosen for practical reasons, that is, based on willingness of the manager to participate and spend time in an interview with the researcher.

It was proposed that 15 to 20 cases be conducted in total across the three contexts, however, Yin (2009) notes that the ability “to conduct 6 to 10 case studies, arranged effectively within a multiple-case design, is “analogous to the ability to conduct 6 to 10 experiments on related topics” (p. 54). The fourteen cases in this study were considered adequate since (1) data saturation had been reached and (2) there were potential participants in the accessible geographic region that could not be included due to time constraints or pressing operational issues. The number of cases exceeds the example described by Yin (2009) and can, therefore, provide a robust number of cases from which to present results for the three contexts. It is worth noting that data about the number of meat processing firms that process only turkey or only pork in Ontario is unavailable. Therefore, data in Figure 3.6 can only be presented without details about processed animal proteins that are sufficiently specific. Furthermore, data is also unavailable for Ontario meat processing firms by firm size and those lists of processors available by meat protein processed contain duplication because many processors process multiple meat proteins.

<table>
<thead>
<tr>
<th>Firm Size (Industry Canada categories)</th>
<th>Firms in this study (number)</th>
<th>Meat Processing Plants in Canada (number)*</th>
<th>Firms in this Study as Percentage of Canadian plants</th>
<th>Meat Processing Plants in Ontario (number)*</th>
<th>Firms in this Study as Percentage of Ontario plants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Micro (1 to 4 employees)</td>
<td>1</td>
<td>143</td>
<td>0.7%</td>
<td>49</td>
<td>2.0%</td>
</tr>
<tr>
<td>Small (5 to 99 employees)</td>
<td>9</td>
<td>453</td>
<td>2.0%</td>
<td>165</td>
<td>5.5%</td>
</tr>
<tr>
<td>Medium (100 to 499 employees)</td>
<td>3</td>
<td>108</td>
<td>2.8%</td>
<td>40</td>
<td>7.5%</td>
</tr>
<tr>
<td>Large (500+ employees)</td>
<td>1</td>
<td>23</td>
<td>4.3%</td>
<td>8</td>
<td>12.5%</td>
</tr>
<tr>
<td>TOTAL</td>
<td>14</td>
<td>727</td>
<td>1.9%</td>
<td>262</td>
<td>5.3%</td>
</tr>
</tbody>
</table>

*Figures from 2014 (Statistics Canada, 2015a) are for processing plants, not companies or firms that may operate multiple plants. This could mean that numbers may be inflated, and may be so particularly for larger firms who are more likely to operate a number of plants. Percentages are, therefore, only calculated to give some degree of context.

Preparation for Data Collection

Preparation for the collection of data included gaining background knowledge about the industry, conducting pilot studies, identifying the evidence to be collected, and ethical considerations.

Industry background preparation.

In order to gain background knowledge about the agri-food industry and about agri-food policy, the researcher did not rely solely on industry reports and publications about the industry but also gathered an extensive amount of knowledge through informal discussions with key contacts in various industry organizations and through attendance at a number of industry events; both of these initiatives occurred over one year prior to the start of data collection and were
critical to acquaint the researcher (who had no industry background) with industry terminology and to prepare for discussions about a sensitive\textsuperscript{17} topic in an industry with few players. Concurrent with these preparation activities, the researcher wrote an industry analysis paper that can be found in Appendix C; in this appendix, the researcher used assessment tools that would be commonly used by industry manager to assess their external environment. This exercise took three months to conduct and gave the researcher an understanding of how each assessment tool approached analysis of external environments and suggested how some managers in the field may approach their assessments.

The first strategy to gain background involved the researcher contacting key industry organizations to explain the research and ask for background interviews; these interviews ranged from 45 minutes to two hours in length. Key contacts in each organization shared their knowledge in background interviews which provided additional context for the study, generally, and about challenges facing the industry, specifically. These meetings resulted in extensive notes about the industry, the industry environment and the general and specific regulations. Key contacts in the following organizations were generous enough to share their knowledge and expertise about the meat processing industry and about supply managed sectors in Ontario:

- In-person discussions took place with contacts at:
  - Turkey Farmers of Ontario, Kitchener, ON
  - Ontario Pork, Guelph, ON
  - Ontario Farm Products Marketing Commission, OMAFRA, Guelph, ON

\textsuperscript{17} The researcher suspected the topic of supply management regulations was sensitive for many stakeholders in the meat processing industry because literature had suggested the topic was both political, ideological, and often polarizing.
- Ontario Independent Meat Processors, Guelph, ON
- Agriculture and Agri-Food Canada, Guelph, ON

- Discussion by telephone took place with contact at:
  - Food and Beverage Ontario (formerly Association of Ontario Food Processors), Guelph, ON

The second strategy to gain background involved the researcher attending a number of industry events (for example, Ontario Pork Annual General Meeting) that helped the researcher prepare to conduct the intensive interviews in the data collection phase. These industry events gave the researcher an opportunity to use industry terminology, to assess how industry organizations may be interconnected, and to understand how to carefully word queries about sensitive industry issues. The researcher also learned from these discussions that the interview protocol may be best organized around issues in the general, regulatory environment rather than by immediately focusing on the specific, supply-managed regulatory environment.

Throughout execution of these background preparation strategies, the researcher talked to industry contacts and the thesis advisor about the best way to capture data with respect to two challenges. The first challenge arose because the number of firms in two of the three regulatory contexts were relatively small in number; that is, there were many firms that process both pork and turkey in the Ontario meat processing industry, however, there are fewer firms that process only turkey (SM context) or process only pork (NSM context). These discussions determined that the researcher would adapt the interview questions used in data collection to include a question for firms in the BOTH context that would help the researcher probe for differences in firm activities for SM and NSM inputs. The second challenge was related to the sensitivity of issues related to supply management and how the researcher could ask questions about this
specific regulatory context without suggesting to participants that the research was about policies supporting supply management. Discussions with industry contacts and the thesis advisor determined that the use of open-ended questions about the general regulatory environment in the industry might be an approach that would keep managers focused on firm activities rather than on the sensitive issue of policies supporting supply management. It was also determined that the researcher could probe about firm activities (using turkey and pork products as examples) in interviews with firms that operated in the BOTH context in order to explore differences or similarities in firm activities.

**Pilot studies.**

Yin (2009) recommends that pilot studies be conducted during the final stages of preparation for the collection of data; there are several reasons for this (p. 92). First, a pilot study can help to refine data collection plans. Second, the pilot study can help researchers refine interview questions and revise the interview protocol. Pilot studies can be selected for convenience and access; reports from these pilot studies are used internally by the researcher (p. 94).

Two pilot studies were conducted for this research. The first was conducted for formative reasons to assist in developing the questions for the case studies in the research (Yin, 2009, p. 92). This first pilot study was particularly important because while managers are often knowledgeable about terminology in their industries, it was not expected that theoretical terms from management theory would be appropriate; thus, it was important to consider that some language might cause confusion and possibly interrupt the flow of conversation during an interview. The first pilot study was conducted with a manager/owner of a food manufacturing company and took two hours to complete; this case was chosen for accessibility reasons and
allowed the researcher to try out different approaches to questioning in a congenial climate. In return for participating in the pilot case study, the researcher gave the informant feedback about how the pilot case study helped to adapt the procedures in the project. The experience of conducting the first pilot study allowed the researcher to rethink the approach taken in terms of questioning, in particular about market-related capabilities and about how to approach the subject of supply management regulations with respect to particular inputs. It was apparent in this first pilot study that even when the manager was aware of the research questions for the study, the term *regulations* was interpreted as relating to food safety issues rather than supply management policies despite this manager’s many years of experience in a specific supply-managed environment. In addition, it became apparent that the term “capabilities” has different meanings to different people; as a result, it was clear that a different approach would be more useful when asking managers to discuss firm capabilities. Also, the interviewer found it challenging to listen to the manager while trying to keep track of which question to ask next when the questions on the interview guide were arranged in a linear, textual fashion. It was subsequently decided that the interview guide could be presented in a more visual format. This change allowed the researcher to keep track of topic areas more quickly during interviews and it also resulted in a much more approachable and appealing guide when shared with managers before the interview. This first pilot study also demonstrated that fewer questions may reveal more information; the manager indicated that the number of questions were too many for the time most managers were likely willing to spare. This manager indicated to the researcher that one hour interviews were likely to be the longest that would be likely in the industry with most managers.
The objective of the second pilot study was to test revisions to the interview guide with its new, visual format and allowed the researcher to gain confidence in using the new guide. This pilot study was also conducted in a manufacturing (non-food) environment with a contact known to the researcher. This pilot study was also helpful because this manager had a graduate degree in business and was generous with feedback after the interview; this feedback resulted in some final adjustments to the wording of many questions in the guide and the collapsing of several questions into one. This manager also indicated that one hour interviews were likely the maximum to be expected and the researcher should plan accordingly; it was also suggested that the researcher could offer the interview protocol ahead of time to build interest and gain trust of potential participants. In addition, the researcher modified the final interview protocol (see Figure E1 in Appendix E) following the second pilot study to address the ceiling on replications possible in the BOTH context. This was done because the replications for the SM and NSM contexts was lower because of the nature of each sector. Thus, in interviews with firms operating in the BOTH context, the researcher made the assumption that managers would understand similarities and differences in firm capabilities and activities that may be related to either specific supply-managed or non-supply-managed regulatory environments. To operationalize this, the researcher modified the interview protocol so that managers of BOTH context firms could be asked to elaborate on firm activities related to the type of protein input. These additional questions allowed the researcher to capture data for different contexts that could be addressed in analysis.

Type of evidence to be collected.

Data in this study was collected from interviews with Ontario meat processing firm managers or owners, from company websites (as available), from social media sites for the firms selected for interviews, from government or regulatory agencies (as available).
Ethical considerations for research involving human participants.

Approval was granted by the University of Guelph Research Ethics Board to collect the evidence in this research. All participants were made aware that the goal of study was to explain the capabilities of meat processing firms as part of a larger project that is investigating the competitiveness of food processing firms in Ontario. In order to allow the researcher to make the best possible use of managers’ time, the decision was made to provide all consent information and the visual interview protocol ahead of time; in a number of instances, this offer to send all information ahead of time was a critical part of securing the manager’s agreement to schedule an interview. All participants were given a consent form that allowed each to choose whether or not to review the transcript and whether or not identifying information could be used in research reports. All participants elected to view the transcript when completed. All participants but one elected to allow the use of the information only when it was shared with information from other participants so that identifying details about the individual firm would be confidential. The desire of participants to remain confidential has three important implications for the analysis and results of the research: first, it may underscore the sensitivity of issues in the Ontario meat processing industry and the necessity of careful wording in any description of evidence; second, it may underscore the small size of the meat processing industry (and turkey and pork sectors, in particular) in Ontario and may limit some descriptions of evidence; and third, it means that the researcher cannot share individual case reports in the research because to do so would identify the firms and/or managers.

Field Procedures

This section explains activities related to field work in this study including: gaining access to the field, resources and guidance needed for field work, the schedule for data
collection, the plan for unanticipated events, and considerations for the ethical use of human subjects in the research. This section also includes the interview procedures used in the collection of evidence.

**Access to the field.**

There were a number of ways in which information was sourced about meat processing firms that may be suitable cases. First, the researcher made use of Scott’s Directory lists that were purchased by the thesis advisor. This list did have disadvantages because some data was out of date and some information was incorrect. Second, the Ontario Independent Meat Processors Association has a website with a search feature that could be used to find processors of particular products of in a particular geographic region; this list was particularly useful in finding smaller processors in the province. Third, the researcher used a letter of introduction to tell prospective meat processors about the research project; this letter was shared with industry contacts and at industry meetings and conferences with permission. In all cases, the researcher was responsible for prospecting, contacting, and scheduling appointments with case firms.

As a firm was targeted for a possible interview, the researcher collected background information about the firm, sent an email of introduction and explained the nature of the work and its place in the broader context of a concurrent project about food processing industry competitiveness. The researcher has over 10 years of combined formal training and practical experience at prospecting contacts and approaching them to ask for their time or assistance and these skills were useful in the field work. The email contained an attachment that outlined basic information about the project, about the Research Ethics Board clearance received, and about the researcher experience and background. The email also asked recipients for a time for a phone appointment so that the request for an interview could be made over the phone. Finally, the
researcher followed up by phone to ask for the appointment. In many cases, the participants agreed; in some cases, prospects did not agree.

**Resources and guidance during field work.**

Site preparation included planning how to access firms in the industry, considering the resources required to collect and analyze the data, creating a proposed schedule for data collection, and handling of a number of unanticipated events that occurred during data collection.

Resources were needed to collect data. First, the researcher would use a Blackberry Q10 phone with Parrot software to collect interview evidence from cases in the study. This ensured double-encryption of audio files for security and ethical reasons; all encrypted audio files were moved within 24 hours to a secure location on the University of Guelph’s website. Second, software and hardware is required to transcribe the data; software used was ExpressScribe and the hardware was a foot pedal that permitted easier and faster transcription on a laptop computer. Third, the researcher would need a personal vehicle to travel to and from meat processing firms. Fourth, NVivo 10.0 software was needed to aid in coding of evidence and for comparison of similar themes across contexts and cases. Last, the researcher purchased thank you notes that were mailed to each manager immediately following each interview as professional etiquette dictates.

Following each interview, the researcher would record voice memos immediately. These memos were transcribed and could reflect first impressions about the interview or the interview process for that particular case. These memos could also provide a source of ideas and perspectives about the evidence collected during analysis.
The researcher shared case information with the advisor in order to be able to gain guidance from a senior researcher who had extensive experience with the case method of research. This guidance, along with the structure provided by the case protocols, were important to ensure that the researcher built rigour in the case study process and learned when appropriate to be flexible.

**Interview Procedures.**

The procedures used to schedule, conduct and follow up on the interviews in this research are described next.

**Step One: scheduling interviews.**

The researcher worked with the thesis advisor throughout case selection and scheduling of interviews in order to benefit from the advisor’s experience in the field and with the case research method. Managers at firms selected in each industry context (SM, NSM and BOTH) were contacted by the researcher using email or by telephone. Manager and firm contact information was found in a Scott’s Directory database purchased by the thesis advisor, however, in some cases this information was out of date so potential cases were also found on the internet using a variety of publicly available sources. When contact was established, the researcher relied on skills from a previous sales and marketing career to establish rapport, earn trust, and book an appointment to meet with the manager in person. In the event that the manager was unable to meet in person, the researcher asked if the discussion could proceed by telephone.

During the initial contact by phone or email, the researcher also offered the manager a copy of the interview protocol so they could see the questions they would be asked in the interview. Pilot studies suggested that sharing the interview protocol ahead of time could encourage trust with and demonstrate transparency to participants. The consent form was also
shared with managers so they could review the form before the interview; it was anticipated that this could minimize the amount of time that would have to be spent on procedural matters at the beginning of the interview. Managers were informed that interviews would be kept to one hour unless they wished to continue. The researcher was prepared to book interviews for less than one hour in the event that the manager indicated they could not meet for a full hour. In this case, the researcher had prioritized questions so that key evidence could be collected in interviews shorter than one hour in length if and when necessary.

**Step Two: conducting the interviews.**

Upon arrival the researcher made introductions and then reviewed the consent form and obtained a signature from the manager. In most cases, managers indicated they would like a copy of the transcript; also, all managers indicated they wished to keep the identity of the firm confidential. Following these required steps, the researcher conducted the interview using the semi-structured interview protocol as a guide. If the manager shared information that was not directly related to the current line of questioning, the researcher could use the guide to ensure that all key areas were covered in the interview without interrupting the flow of the interview. The challenge in some interviews was to gain sufficient data for various topic areas and, at the same time, not spend too much time in others.

**Step Three: follow up after interviews.**

Upon completion of interview questions, the researcher thanked the manager for his/her time and sent a handwritten note of thanks upon returning to the office. In addition, evidence about firm attributes was added to the case database, audio files were saved to the password protected university website, and the transcription of the audio files could begin. Following the completion of each transcript by the researcher, member checks were performed as the researcher had promised the managers and proceeded as follows: first, the transcript was sent as
a password protected attachment in an email to each participant; second, the researcher requested that each participant read and comment on the transcript data; third, managers who responded indicated each that the transcript was an accurate representation of the interview discussion with one electing to add a minor clarification that was then reflected in the final copy of the transcript used in the data analysis.

Appendix G contains a summary of key attribute evidence collected for all cases in this study. The final case database is not provided as an exhibit in this thesis to protect participant confidentiality.

Unanticipated events and challenges.

There are often unforeseen events that impact a study. Yin (2009) has advised that researchers using case study method document these events and be flexible with the study design as required. Several challenges arose during case selection and these affected the schedule for collecting evidence. For example, some managers who were contacted indicated they were too busy for an interview. These firms could not be included in the study and this impacted the number of firms that the researcher could interview, particularly in the SM context. Some managers were dealing with crises, including one instance where a firm was destroyed by fire and another where managers were dealing with outbreak of disease. These instances meant that some firms initially targeted for interviews could not be included in the study. In addition, the time required to arrange many of the interviews far exceeded what the researcher had anticipated based on years as a sales professional; this challenge increased the time required to schedule interviews, suggesting either that managers were uninterested in participating or that they had little time to spare. The time required to set up interviews, however, meant that researcher could begin to analyze evidence before all evidence had been collected. This resulted in researcher
activity that alternated between data collection and analysis, an iterative process not uncommon when using the case method of research according to Yin (2009). Finally, several managers agreed to an interview but indicated that they had less than an hour for this task; the researcher responded by further prioritizing questions and by ensuring that the interview protocol and consent form were emailed to the manager ahead of time so that the full appointment could be used for interview questions.

_Documentation._

The documentation of evidence was planned as follows:

**Interview Transcripts.**

All interviews were recorded and transcribed. All files were stored on a password protected university website; only the advisor and researcher had access to these files during the collection of evidence, analysis and writing of the thesis.

**Case Study Database.**

Yin (2009) recommends that tools be used to identify information that the researchers wishes to collect and to ensure that parallel information is collected for each case in a multiple-case study (p. 89). In this study, a master database was used to collect a variety of data, both quantitative and qualitative about each case. This database was also used to create charts and tables to visually present data about the three contexts examined in the research. Table 3.8 displays the attributes for which evidence was collected in the case study database.
### Table 3.8. Attributes Collected in Case Study Database.

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Options or Units</th>
<th>Additional Detail</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recording Length</td>
<td># minutes</td>
<td>- length of audio recording</td>
</tr>
<tr>
<td>Transcript Length</td>
<td># double-spaced pages</td>
<td>- length of transcript</td>
</tr>
<tr>
<td>Interview Date</td>
<td>Day, Month and Year</td>
<td></td>
</tr>
<tr>
<td>Firm Name</td>
<td></td>
<td>- codes used for firm names</td>
</tr>
<tr>
<td>Inputs</td>
<td>SM, NSM, BOTH</td>
<td></td>
</tr>
<tr>
<td>Entry Name</td>
<td></td>
<td>- codes used for interview identification</td>
</tr>
<tr>
<td>Type Interview</td>
<td>In person, Phone</td>
<td></td>
</tr>
<tr>
<td>Type of License</td>
<td>Federal, Provincial</td>
<td></td>
</tr>
<tr>
<td>Distance</td>
<td># kilometres</td>
<td>- distance from Guelph using to Google Maps</td>
</tr>
<tr>
<td>Year Est</td>
<td>Year</td>
<td>- year in which firm began operation</td>
</tr>
<tr>
<td>Firm Age</td>
<td>Years</td>
<td>- calculated as (2015 – “Firm Age”)</td>
</tr>
<tr>
<td>Number Employees</td>
<td># Employees</td>
<td>- full time employees as reported by firm manager in interview</td>
</tr>
<tr>
<td>Size IC</td>
<td>Micro, Small, Medium, Large</td>
<td>- firm size according to Industry Canada categories: Micro = 0 to 4 employees, Small = 5 to 99 employees, Medium = 100 to 499 employees, Large = 500+ employees</td>
</tr>
<tr>
<td>Size OHSA</td>
<td>Small, Medium, Large</td>
<td>- firm size according to Ontario Health and Safety Association: Small = 1 to 9 employees, Medium = 10 to 19 employees, Large = 20+ employees</td>
</tr>
<tr>
<td>Annual Sales</td>
<td>Dollars</td>
<td>- annual sales for last full year</td>
</tr>
<tr>
<td>Ownership</td>
<td>Public, Private</td>
<td></td>
</tr>
<tr>
<td>Structure of Organization</td>
<td>Corporation, Limited Company, Proprietorship, Other</td>
<td></td>
</tr>
<tr>
<td>Family Owned</td>
<td>Yes, No</td>
<td></td>
</tr>
<tr>
<td>Social Media</td>
<td>Facebook, Twitter, YouTube, Pinterest</td>
<td>- tracked whether YouTube was posted by firm or other entity</td>
</tr>
<tr>
<td>Firm Name (hidden)</td>
<td></td>
<td>Internal use only</td>
</tr>
<tr>
<td>Protein Inputs</td>
<td>Multiple, Single</td>
<td>- did firm process more than one type of animal protein</td>
</tr>
<tr>
<td>Processor Type</td>
<td>Primary, Further, Both</td>
<td></td>
</tr>
<tr>
<td>Target Markets</td>
<td></td>
<td>- field for researcher to make notes about target markets of firm according to firm website</td>
</tr>
<tr>
<td>Integration</td>
<td>Forward, Backward, Both, None</td>
<td></td>
</tr>
<tr>
<td>Attribute</td>
<td>Options or Units</td>
<td>Additional Detail</td>
</tr>
<tr>
<td>-------------------------------</td>
<td>------------------------</td>
<td>------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Generic Strategy – scope</td>
<td>Broad, Narrow</td>
<td>Used to track scope dimension of generic strategy</td>
</tr>
<tr>
<td>Generic Strategy – advantage</td>
<td>Cost, Differentiation</td>
<td>Used to track advantage dimension of generic strategy</td>
</tr>
</tbody>
</table>

**Case reports.**

Detailed files were created for each firm interviewed in this study. These files comprised demographic data about the firms, data from firm websites (for example, marketing data, firm strategy details, etc.), contact information for interviewees, interview transcripts, as well as other records confirming correspondence with the interviewee. To protect confidentiality of firms in the study, these individual case reports were shared only with the advisor for the study according to the requirements of the Research Ethics Board at the University of Guelph. Because the meat processing industry in Canada is relatively small in terms of number of firms and issues around policies supporting supply management are a sensitive topic with many in the industry, the promise made to participants to protect confidentiality by not revealing the individual case reports was an important part of securing interviews; managers were promised that they could trust the researcher and that their businesses and reputations would be safeguarded. In two cases, where a second manager (with procurement responsibilities) was interviewed in the firm, the data collected was considered part of the case.

The report presented in the results section of the thesis is a cross-case analysis and is appropriate only for multiple-case studies (Yin, 2009). In this study, all reporting was written to protect individual firm confidentiality. Yin suggests that the use of “abbreviated vignettes” (Yin, 2012, p. 172) in written reports for case studies can add context or clarity to this report format. Both concept maps and vignettes were used in the analysis phase of the study to compare and contrast results among cases and among cases in each context.
3.5 Chapter Summary

This chapter described the research philosophy and approach used in this research and the qualitative approach to research and its appropriateness for use in this research. The chapter also described the components of the case research protocol for this research and included: the background and relevance of the research; the logic model, assumptions and propositions for the research; the case study questions; the unit of analysis; a description of how cases were defined and selected in the research and the schedule for conducting data collection; the preparation completed prior to data collection; and, the field procedures and documentation used in the research.
CHAPTER FOUR - ANALYSIS AND RESULTS

4.1 Introduction

This chapter contains three sections. Section 4.2 describes the cases in this study. Section 4.3 contains a description of the steps that were taken to analyze data in the research. Section 4.4 presents the detailed results of the analysis; this section is lengthy and describes the evidence in the study according to two broad themes, presents a summary of these themes, and addresses the propositions in the study. A summary of this chapter is found in Section 4.5.

4.2 Description of Cases

A summary of key attributes for cases in the study are described next. For several of the cases, the description is written in a manner that will not suggest the identity of participants or firms. Appendix G also contains visual presentations to describe the cases in the study. In order to cover the contexts and cases of interest in the study, evidence collected included 802 minutes of recorded interviews and 342 pages of transcribed evidence from the interviews; and, included text and pictures from 13 firm websites that was used to help confirm details about firm activities.

4.2.1 Case details.

Interviews were conducted over 12 months beginning in September 2013 and concluding in September 2014. A total of 16 intensive interviews were completed in this study and comprised 14 cases across the three contexts in the study. In two cases with larger firms, the interviewer suggested that the researcher speak with a manager in procurement to gain additional detail regarding firm activities that could not be obtained with the general manager in the first interview. In cases of smaller firms, the researcher asked if there was anyone in purchasing for
further interviews, but found that (1) either there was no purchasing manager and the general manager conducted the work or (2) the researcher was told that the manager in charge of purchasing would have the same answers to interview questions as the general manager. The researcher observed that the perspectives of the two purchasing managers in each of these instances was similar to that of the general manager; this is not surprising as managers, it could be argued, would tend to approach issues as a team in order to increase the chances that a firm strategy would succeed.

Of the 14 cases in the study, 10 cases operated in the BOTH regulatory context, three operated in the SM regulatory context, and one operated in the NSM regulatory context. While it should be made clear that replication is not based on the same logic as are sampling strategies, it should be noted that the vast majority of processing firms in Ontario process multiple protein inputs, that is, they process meat proteins from both the SM and NSM contexts (for example, both beef and chicken) and process multiple proteins in each of these contexts (for example, beef and pork, or chicken and turkey). In addition, the bankruptcy of one key pork processor (Quality Meats and its wholly-owned subsidiary Great Lakes Specialty Meats; Brodhagen, 2014) was declared in July 2014 just before data collection ended and this reduced the number of firms in the NSM regulatory context from two to one. Data from the OIMP website helps to illustrate the picture for turkey processors in Ontario. A search for processors of “turkey” in the OIMP search engine lists 113 member firms that process turkey as part of their operations of which all but one firm process other meat proteins in addition to turkey. While the small size of the SM and NSM contexts may appear to limit replication, replication logic allowed the researcher to find

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18 This bankruptcy announcement perhaps explains why the researcher could not reach a manager in the firm despite repeated attempts to set up an interview.
replication of evidence for SM and NSM regulatory contexts by asking specific questions of managers of firms in the BOTH regulatory context. The purpose of replication is not to employ statistical generalization but instead to use analytical generalization about a set of results; the objective in this research is to generalize to theory (Yin, 2009, p. 44) and challenge existing approaches to understanding how firms compete in specific regulatory environments.

Table 4.1 describes the cases in the study by their context and their firm size. Using Industry Canada firm size categories, one case was micro in size, nine cases were small size, two cases were medium size, and two cases were large size. Table 4.1 displays the cases in the study according to their size category and the number of meat processing plants in Ontario and Canada. This display is presented to address the validity of blanket comments for size categories in the study but not to produce generalizable results. As in previous tables, the number of plants in Ontario and Canada are somewhat inflated because some firms, particularly larger ones, may operate multiple plants.

Table 4.1. Summary of Cases in Study and Plants in Ontario and Canada.

<table>
<thead>
<tr>
<th>Firm Size (Industry Canada)</th>
<th>Cases in Study</th>
<th>Percent of Total</th>
<th>Plants in Ontario</th>
<th>Percent of Total</th>
<th>Plants in Canada</th>
<th>Percent of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Micro</td>
<td>1</td>
<td>7.1%</td>
<td>49</td>
<td>18.7%</td>
<td>143</td>
<td>19.7%</td>
</tr>
<tr>
<td>Small</td>
<td>9</td>
<td>64.3%</td>
<td>165</td>
<td>63.0%</td>
<td>453</td>
<td>62.3%</td>
</tr>
<tr>
<td>Medium</td>
<td>2*</td>
<td>14.3%</td>
<td>40</td>
<td>15.3%</td>
<td>108</td>
<td>14.9%</td>
</tr>
<tr>
<td>Large</td>
<td>2*</td>
<td>14.3%</td>
<td>8</td>
<td>3.1%</td>
<td>23</td>
<td>3.2%</td>
</tr>
<tr>
<td>Total</td>
<td>14</td>
<td>100.0%</td>
<td>262</td>
<td>100.0%</td>
<td>727</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

* There were two interviews conducted with one medium size firm and two interviews conducted with one large firm; two interviews with the same firm are reported as the same case.

Of the 14 cases in the study, 12 were conducted in person; four were conducted by phone. Eight of 14 cases were firms that conducted only further processing; six conducted both primary (slaughter) processing and further processing. Most cases were organizations incorporated or
limited in their legal structure; the majority of cases were privately owned. Nine cases were firms of 30 years of age or older; no cases in the study were less than five years of age. Twelve cases were located within 100km of Guelph, Ontario. Eight cases had federal licenses to process meat; six cases had provincial licenses that allowed them to process product for the province of Ontario only. Additional descriptions about cases can be found in Appendix G.

4.3 Analysis of Data

This section describes the steps used in analyzing the data and the criteria used to identify capabilities in the data collected.

4.3.1 Steps in analysis.

Analysis was iterative in nature as discussed by both Yin (2009) and M.B. Miles and Huberman (1994). For example, there were times when the researcher would be reading a transcript concurrent with capturing data online for cases in the study or with coding the data using NVivo software or entering data into an Excel database used for tracking case details. Figure 4.1 illustrates the steps used in analysis of the data in the research.
Figure 4.1. Steps in Analysis.
This figure illustrates the steps used in analysis of data from interviews.

The steps in analysis are illustrated in Figure 4.1. First, transcripts were read to get an overall impression of how the manager framed the idea of competitiveness and how the manager described the external environment of the firm; while reading, the researcher also highlighted comments of interest. Next, the researcher conducted open coding using concept maps to “evoke the complexity of the individual’s thinking” (M.B. Miles & Huberman, 1994, p. 134); this step helped organize ideas from each interview visually and helped to identify key themes in each interview that was conducted. Concept maps could be subsequently compared to each other as data collection and analysis proceeded and inductive reasoning was used to think about how concept map themes related to key areas of interest in the study, that is, with respect to firm environment, regulatory context and firm capabilities. Concept mapping also helped the researcher to think about the approach of each manager to the firm strategy. In one particular
concept map (A11) the researcher created themes based on ideas that the manager used that included creativity, about food safety, about niche markets and about innovation; the researcher then connected these concepts with each other and with other data to develop a map of the way the manager thought about the work of the firm. Following the completion of the concept map, the researcher read transcripts for a second time; concurrently, data was captured for each case and recorded in a case study database using Microsoft Excel; this data helped the researcher verify the strategy that the firm intended to pursue, the way in which the firm was approaching value creation, and the way the firm promoted its products, services, and technology to its customers. The researcher also looked for additional data about the firm and its strategy on the company website (if one existed). Next, transcript and online data were entered into NVivo 10.0 software so that the researcher could use in vivo coding to facilitate a subsequent search for categories and patterns (Yin, 2009); passages or quotations in the transcript evidence that were particularly illustrative or unique were coded for subsequent retrieval. The researcher then returned to the transcripts as needed during writing to ensure that key passages were re-read and their context confirmed. The researcher also alternated between additional literature review to clarify theoretical details, drafting the results, consulting with the thesis advisor, and examining the data with various conceptual and theoretical approaches.

The objective of this research was to describe firm capabilities of meat processing firms in supply managed and non-supply managed regulatory contexts, so inductive reasoning was used as part of the research approach during analysis. The use of inductive reasoning allowed the researcher to suggest and explore (and then discuss with the advisor) possible relationships between key concept areas. The use of inductive reasoning was not intended to provide either causal evidence or proof of conclusions.
4.3.2 Member Checks

Following the steps of analysis outlined in Figure 4.1, preliminary results from analysis of evidence in this study were prepared and shared in a 20-minute presentation to a gathering of Ontario meat processing industry managers. Unsolicited responses from several meat processor managers following this presentation indicated to the researcher that results presented were an accurate representation of what managers in the Ontario meat processing industry were experiencing. In particular, managers agreed with observations about the unpredictable nature of the meat processing industry environment, the breadth of regulations that affect the industry, and the wide variety of firm activities that were necessary for a successful meat processing business. Managers also indicated that they found the observations about their firm capabilities interesting; some indicated they had learned something new from the presentation and felt it was of value to them.

4.3.3 Framework used to identify capabilities in firm value chain.

In order to develop a framework to help identify capabilities in the data collected in this research, a new framework was developed in Figure 4.2 that links Morgan’s (2012) framework of capabilities and firm-level business performance with the firm value chain of Porter and Millar (1985). Morgan’s (2012) framework integrates research from three streams of research about capabilities from the strategic management literature and applies this framework to marketing capabilities; Morgan’s framework is borrowed here because it provides a concise and convenient way to categorize firm capabilities according to their level of complexity and it suggests examples of each category of capability that can be linked to the value chain of the firm. Because many capabilities “have yet to be comprehensively identified and cataloged” (Morgan, 2012, p. 106), the use of Morgan’s framework in the new framework in Figure 4.2 also allowed
the researcher to think broadly about the variety of capabilities that may be suggested by evidence from the research.

![Diagram](image)

**Figure 4.2. Framework linking Firm Capabilities with the Firm Value Chain.**

This figure is based on Morgan’s (2012) conceptual framework to understand firm marketing capabilities that contribute to superior firm-level performance and Porter and Millar’s (1985) value chain of the firm. The new framework in this figure uses examples of marketing capabilities from Morgan (2012) and provides arrows to link these examples to the firm-level activities in the value chain (Porter & Millar, 1985).

**Figure 4.2** links the value chain to firm capabilities as follows. Specialized capabilities are the least complex capabilities that allow firms to combine and transfer resources and may be
found in the functional activities of firms (Morgan, 2012, p. 106), for example, inbound logistics. Cross-functional capabilities are more complex than specialized capabilities and integrate two or more specialized capabilities (p. 107), for example, tasks that might require coordination between inbound logistics and operations. Architectural capabilities are more complex capabilities that allow firms to select, combine and manage different cross-functional capabilities in order to plan and implement initiatives (p. 108) and could span multiple primary and support activities. Finally, dynamic capabilities are capabilities that help firms engage in market based learning, resource reconfiguration, and capability enhancement in order to succeed in dynamic environments (p. 108); these capabilities are the more complex and may span any combination of or all primary and support activities of a firm.

4.4 Results from Analysis

This section describes the data collected in this research. Section 4.4.1 describes themes related to framing that arose from the creation of concept maps immediately following the first reading of each transcript; the concept maps allowed the researcher to consider surprising or unique perspectives and themes arising for each case. The theme of framing arose from data about the way Ontario meat processing firms framed a number of factors. Section 4.4.2 describes themes about firm capabilities arising from transcript and website coding; each transcript was coded according to themes arising in the data (for example, customer relationships), those considered important given the literature (for example, generic strategy of firm), and those observed in concept maps (for example, lack of predictability in general environment). The theme of firm capabilities describes evidence about capabilities that Ontario meat processing firms use to bring their products to markets. Section 4.4.3 summarizes themes and addresses the
propositions of the research. Figure 4.3 shows theme areas arising from analysis of data; evidence for each theme area is discussed next.

Figure 4.3. Theme areas arising from analysis.

4.4.1 Themes related to Framing

The theme of framing has three sub-themes suggested by the data; these are also illustrated in Figure 4.3. First, the mindset of managers includes evidence about how managers frame the goals of the firm. Second, the regulatory includes evidence about how managers may frame the general regulatory environment and specific regulatory environments that may include supply management policies. Third, the approach to competition includes evidence suggesting how managers may view the rules of the game. Evidence supporting each of these four subcategories is presented next followed by a summary of the four subcategories.
**Framing and mindset of the manager.**

Evidence suggests that the mindset of managers is not always consistent among the Ontario meat processing cases in this study. Evidence suggests that differences in mindset allow each manager to frame opportunities and threats in a different manner than competing firm managers and allows for individual differences between managers whose firms may compete using very similar strategies. Although there were some similarities across general views about the industry, each manager approached their understanding of opportunities and threats facing their firm through a slightly different lens. This suggests that managers may each assess their external environment differently than others. This difference in mindset among managers was also noted with respect to other themes in the analysis.

**Framing of regulatory environment.**

The evidence in this study suggests that there are both similarities and differences in the way firms frame the regulatory environment in the meat processing industry. Figure 4.4 illustrates the theme areas that relate to framing of the regulatory environment that are described next.

**Figure 4.4. Themes Related to Framing of Regulatory Environments.**

This figure illustrates the themes related to framing of the general regulatory environment and the framing of regulatory environments that include supply management policies.
Evidence suggests a variety of opinions about the general regulatory environment for Ontario meat processors. Managers referring to food safety inspectors suggested one should respect regulators (N1413) to stay on their good side because they would win in the end (M1312). Another noted that there was a lack of trust in some regulatory personnel because they wouldn’t put anything in writing (N1413). One described that a relaxed approach was best but indicated one should avoid complaining, suggesting it was better to view the food safety regulator as a “third eye” (M1312) or a neutral overseer that could make suggestions that may benefit the firm. This manager may have been suggesting that the use of trust was one strategy by which to be more efficient when dealing with regulators and working toward general regulatory requirements; building and leveraging trust in relationships with food safety regulators could be a way to save both management and staff valuable time.

A number of managers suggested that there was an impractical or unrealistic element to food safety regulations in the meat processing industry. Some suggested that the level of detail in certain food safety regulations was unnecessary; others noted that the more detailed food safety regulations were open to interpretation (H88) and this could cause confusion and time delays. In one example, a manager shared a narrative about how a producer was instructed by an inspector to keep animals in the barn; it was subsequently discovered that it was only the feed that needed to be inside the barn (H88). In this last case, the manager suggested that such food safety regulations caused delay and confusion which put pressure on the entire value chain. Several managers suggested that food safety regulations are best written by someone who knows the work involved at the processing stage of the value chain but that these regulations often did not consider these practical concerns when they were written or enforced.
Managers were not prompted by the researcher in interviews to specifically address *positive or negative* aspects of the general regulatory environment, but managers made a number of positive comments that suggest some general regulations may be connected with opportunity and innovation. A number of managers suggested that consumer allergies and food sensitivities (consumer health) were sound reasons for regulations to exist for labelling. It was suggested that labelling was a positive sales feature and might help firms market products to customers (K1110). Another suggested that there may be future opportunities to work with the Canadian Food Inspection Agency (CFIA) to develop practical solutions to a variety of regulatory challenges related to food safety in the industry; this manager suggested it was less stressful to adopt the mindset that that food safety regulations are part of the general regulatory environment of the industry and instead focus efforts on the potential benefits from suggestions made by CFIA inspectors as opposed to complaining. It was suggested that the perspective of the inspector can be helpful and can identify improvements that firm management or staff may have missed (M1312, line 398). This suggests that there may be opportunities where general regulations prompt better product quality or improve processing knowledge, both of which may help firms develop capabilities that could contribute to their success.

Evidence suggests that the general regulatory environment may be framed in different ways by firm managers across each of the three contexts. Managers suggested there was an impact from general regulations that “change an awful lot” (N1413) in the meat processing environment; this may suggest that the general regulatory environment may change or be subject to revisions more often than is practical for some firms. One manager suggested current labelling regulations lacked specificity and did not effectively allow firms to deliver that which customers were asking of the processor. This evidence could suggest that general regulations may
sometimes be developed without input from consumers or that government-enacted regulations may not be updated to keep up with changes firms must make to address changing consumer demands. Evidence suggests that managers share information about the general regulatory environment; some suggested that inconsistencies among regulatory jurisdictions (for example, among provinces or countries) were problematic for certain firms although they may not be problematic for their own. Managers suggested that both interprovincial differences and international differences in general regulations could be challenges for firms who exported to markets outside Ontario or Canada. Some managers suggested that firm sales had increased since provincial regulations became stricter, suggesting that there had been increased recognition by their customers that provincially licensed processors could offer the same product quality to processors who were federally licensed. One manager commented that there was not a “perceived gap between provincial and federal (licenses)” (E55, line 129) as there had been in the past; this manager also noted that it may have been a “perceived lack of regulations that hurt” (E55, line 125) provincial processors prior to the regulatory changes to provincial licensing. One manager suggested that that general regulations were simply part of being in the business of processing meat and suggested that many firms in the industry understood how all firms in the meat processing industry could be affected by the same, small problem. Other managers suggested that there was always a time investment required by managers when any regulation was involved (L1211); the degree of general regulation might affect new or continued investment in the industry because the “system tends not to give high enough earnings” (F66, line 253); and, that managers didn’t “look at (food safety regulations) as barriers as much as goals that we strive for” (C33, line 119).
Environments with supply management policies.

Evidence suggests that some managers in the same context did not necessarily frame specific supply-managed regulatory environments consistently; that is, evidence suggests that managers in the food processing industry had a variety of perspectives about supply-management regulations. Comments that could be categorized as negative are described first: One manager recounted an experience of dealing with a marketing board\(^{19}\) that was “brutal” (G77, line 74) and highly political although also noted that lengthy delays and bureaucratic costs of marketing boards were not the intent when policies were first implemented. Another noted that involvement with marketing boards in supply managed sectors required a time investment because issues were not resolved quickly. One suggested, however, that the political climate varies by marketing board. Some described a lack of transparency with respect to some marketing boards; others expressed curiosity about how supply management worked and suggested they would like to understand details about how prices were set. The evidence suggests that some firms may experienced supply issues such as being unable to purchase animal protein with specific characteristics (E55, line 241). One described how firm plans to address a niche market may be related to limits on inputs; it was hard to plan for new product launches without a commitment of input volume. The evidence shows also that larger firms may have concerns about procuring additional volume of inputs with less lead time required for ordering. Some suggested that supply management could result in fewer suppliers for some sectors and observed that this could represent increased risk for the value chain in the event of a crisis like disease outbreak or severe climatic events. It should also be noted that some of the comments classified above as negative

\(^{19}\) The specific marketing board, although identified in the interview, cannot be identified in this paper for reasons of participant confidentiality.
could also be judged as neutral, for example, the curiosity about how supply management regulations work and the lack of information about how prices are set.

Evidence about supply management policies in the specific regulatory environment that could be categorized as neutral or positive are discussed next: One manager in the BOTH context suggested that supply management had no impact on business but was only a “marketing thing” that had “ups and downs like anything else” (N1413, line 759). One manager in the BOTH context suggested that the firm had seen consistent returns and “more continuity” (F66, line 247) in earnings over time for supply managed products (poultry) than for non supply managed products (pork). This evidence suggests that some managers may recognize benefits for firm performance from consistency and predictability of input price and quality in the specific supply-managed regulatory environment. Others suggested that there were many other issues of concern that affected the supply of animal proteins that were outside supply management—like disease outbreaks or weather and supply management was not an urgent concern. Supply management policies were also suggested as a way to decrease the risk of disease outbreaks that could hurt the whole meat processing industry; this suggests that the existence of supply managed sectors could have value and benefit the whole meat processing industry and the all firm value chains. A manager in the BOTH context suggested that firms using supply managed inputs as one of the ingredients in processed products (for example, in sausage) had to focus on making wise use of the inputs (J106, line 195) but did not suggest this was any different for non-supply-managed inputs. This suggests that supply management may increase the focus of managers on efficient use of resources and may increase their focus on decreasing waste during processing of animal proteins; one could also argue that this focus on efficiency may be found through an entire value chain for any valuable resource. One manager in the BOTH context
suggested that marketing boards in supply managed industries were dealing with their own issues (for example, biosecurity or marketing) and suggested these boards were doing the best they could with limited funds. The suggestion of the manager was that the firm wanted “to be a part of the solution...but (couldn’t) be worrying about (marketing boards)” (A11, line 415) because the firm had its own issues of concern. Another manager in the BOTH context suggested that supply management policies would have more impact on firms that only slaughter animals (primary processors) and more impact on larger firms because they use a low cost strategy to compete and must process, therefore a higher volume of protein. The manager suggested, “if you’re processing a lot of poultry then (supply management) would be an issue” (K1110, line 387). This suggests that different sizes and types of processing operation may be impacted differently or in different degrees by policies supporting supply management.

Finally, in the SM context, one manager suggested that supply management was a relationship between farmers and the abattoirs (M1312, line 461) and it had little to do with further processors; this suggests that the type of processing that is done—that is, primary (slaughter) or secondary (further) processing—or the context may affect the way the specific supply-managed regulatory environment is framed by managers; alternatively, the strategy used by the firm to compete may dictate the way that supply management policies are framed.

_Framing and approach to competition._

The evidence suggests that managers may not all frame or approach competition similarly. Evidence suggests that managers have differing views about how firms should go about the work of being successful. The evidence suggests that there may be general rules about being successful in the meat processing industry and rules that may generate success with respect
to the general regulatory environment of some firms. Figure 4.5 illustrates the theme areas that relate to framing the approach to competition; these are described next.

![Approach to Competition](Image)

**Figure 4.5. Themes Related to Framing the Approach to Competition.**

This figure illustrates themes related to framing the approach to competition and includes the framing of competition in the meat processing industry and the framing of the competition in the general regulatory environment.

The evidence had a number of examples of interesting ways in which some managers understood the *rules of the game* in the meat processing industry. Some of the narratives shared with the researcher were surprising because managers were sharing opinions about the many different ways in which their firms achieve success; many reports about the food processing industry tend to talk about cost and competitive issues but evidence suggests this is not the case. The evidence describes that firms in the industry compete using a variety of different approaches and strategies. Evidence suggests that some firms were focused on meeting customer needs and creating value through quality and variety; these firms focused on creating new revenue streams by creating recipes, offering new products, and extending product lines for their existing customers and for new customers in growing niche markets (for example, kosher, halal, gluten-free, antibiotic-free, nitrate-free products). Managers of smaller firms suggested they were focused on selling value to customers (D44) instead of being focused on prices; they also shared that they would speak in-depth with consumers at a retail counter or in social media about ideas and concerns. This evidence suggests that many managers feel confident in marketing quality to their customers and may have developed capabilities to accomplish this.
Evidence suggests, however, that some managers may frame competition in the meat processing industry in cost terms. Larger firm indicated they used hedging in the commodity markets in order to improve their margins (D44, I99, J106). Some managers suggested that they knew of competing firms that processed counterfeit product to survive (E55), for example, processing imported meat and labelling this as Canadian meat. This evidence may suggest that: managers were dishonest; that the firm responded to customer demands for lower prices by reducing quality; managers decided there were few options to achieve firm success without changing the business strategy; or, it could also mean that some managers lack strategic assessment capabilities or formal knowledge to help them respond to cost issues without being dishonest. At very least, this evidence suggests that cost pressures for some firms are a significant threat to survival in the meat processing industry. One manager indicated that the large volume of meat being exported from Canada to the global market at low prices may be partly to blame for the creation of a “commodity environment” (E55, line 213) for domestic processors. This evidence suggests that some managers may frame competition as primarily related to price and cost rather than related to quality. It could also suggest that the global market is viewed as a race to the bottom because firms that compete globally focus only on cost in order to succeed.

Other evidence suggests that competition is not always viewed as a fight between rivals. Managers in some smaller firms suggested that there may be enough work available for all firms in the industry, suggesting they could grow revenue without stealing market share from others by creating markets themselves. One manager suggested that, rather than focusing on competitors, the firm focused attention on a single vision and pursued it every day (C33); this suggests that a clear strategic vision and plan may be an important way some firms succeed. The evidence also
suggests that some managers were focused on creating value and meeting customer needs by *informally cooperating* with competitors, rather than being combative with rival firms. One manager suggested that those who run smaller businesses may live in the same community so respect may be particularly important. The evidence contains a narrative about a manager who consulted a business neighbour before making a decision to sell the same product that the neighbour also sold. This narrative suggests how playing by rules of a *neighbourhood* may have changed the way that business activities were conducted. This type of narrative is not typical, however, evidence suggests that for firms framing competition this way, it was succeeding.

Evidence also suggests that a collegial approach with competitors may help some firms succeed. Some managers indicated they may share business with local and regional competitors if they have operational issues, for example, if they are short processing capacity themselves. This suggests that some firms in the industry may follow different rules about how to interact with other rivals. It may suggest firms have a level of trust with other firms or may suggests maintaining customer trust and meeting customer needs are more important than *defending* business from competitors. One manager suggested that firms may have to choose which threats to address because they had limited resources (C33). This suggests that some firms may choose to not to address certain threats (for example, competitors) because they may not have the resources to address them, for example, firms may choose to accept that competitors may copy products eventually but continue to focus on serving a niche market need because this is central to the firm mission and vision. This suggests that a firm’s approach to competition may be related to firm resources or capabilities. One manager told a narrative about contacting a competitor to ask if the manager would be bothered if they started to sell a non-meat product also sold by the competitor; the competitor responded that they didn’t mind sharing sales of this
product because it was not their primary source of revenue (M1312); both firms agreed that selling the same non-meat product fit into both of their product-service offerings and would improve the customer responsiveness and the image of these two firms in the same region. This suggests there may be room to negotiate with some competitors. Taken together, all the evidence presented here suggests that the approaches to competition used by some firms in the Ontario meat processing industry may not match assumptions about how firms are thought to compete; these assumptions, in turn, may also have affected the way that we understand firm competitiveness and the relate to the gap in knowledge about the possible role of capabilities in Ontario meat processing firm activities.

**Summary of Themes related to Framing.**

Table 4.2 summarizes key results from the three subcategories in themes related to framing: framing and the mindset of the manager; framing of the general and specific regulatory environments; and, framing and the approach to competition. In each theme area, there was no evidence to support that any of the three theme areas are context dependent, that is, supply management may not matter.

**Table 4.2. Summary of Themes related to Framing.**

<table>
<thead>
<tr>
<th>Framing and Mindset of the Manager</th>
<th>Managers use different approaches to understanding environments, opportunities, threats</th>
</tr>
</thead>
</table>
| Framing and General Regulatory Environment | Positive aspects of regulatory environment:  
- May offer opportunity for innovation, learning (depending on mindset)  
- Supports consumer health (for example, allergies, food safety)  
- Labelling regulations support marketing to consumers  
- Possible assistance from inspectors, regulators  

Negative aspects of regulatory environment:  
- Challenging to work with regulators (lack of personnel, lack of trust, lack of opportunity)  
- Frequent changes to all types of regulations |
Framing and Specific Regulatory Environments with Supply Management Policies

- Lack of practical consideration in writing policies and enforcement
- Inconsistencies in and between general regulations; gaps between jurisdictions
- Time resources required (ongoing)

Evidence suggests firms in both context identify **consistency and predictability of inputs and earnings with policies that support supply management.**

*When prompted,* managers in BOTH and SM contexts commented about policies supporting supply management:

**Negative aspects of SM environments:**
- Lack of transparency, variety of input limited, input volume concern, slow to make decisions, political

**Positive aspects of SM environments:**
- Cyclical like markets, has nothing to do with processors, offers consistent returns and continuity of earnings, offers resilience in value chain, increases firm efficiency

<table>
<thead>
<tr>
<th>Framing and Approach to Competition</th>
<th>Rules of game vary with firm (cost vs. value, rivals vs. neighbours)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• May be related to capabilities that help firms assess opportunities and threats in external environment and to mindset of manager</td>
</tr>
</tbody>
</table>

### 4.4.2 Themes related to Capabilities in the Firm Value Chain.

This section describes themes that relate to capabilities in the firm value chain that arose during coding of transcript and website data using NVivo 10 software and during the use of the case study database to organize evidence and look for similarities and differences in capabilities across cases and across contexts.

In the previous section, **Figure 4.2** outlined a framework linking firm capabilities with the firm value chain. Results in this section are organized according to this framework; the evidence suggesting various capabilities is described according to activities in the firm value chain. Evidence suggests that firms in the Ontario meat processing industry have developed a number of firm capabilities that support their success.
Figure 4.6 illustrates four themes that relate to firm capabilities; these will be described next. It is important to stress: although every effort has been made to isolate and categorize the capabilities described in this section for ease of the reader, because capabilities are complex and may span a number of the firm’s primary and/or support activities, some capabilities are described in multiple sections where evidence suggests they are in use by firms. Following descriptions of capabilities at each stage of the value chain, a summary table is presented.

![Figure 4.6. Themes About Firm Capabilities in the Value Chain.](image)

This figure identifies themes related to firm capabilities in the value chain that include capabilities related to inputs, to transformation, to outputs and capabilities that are related to support activities in the value chain. It should be noted that—although many capabilities span multiple activities of the firm—some categorization is necessary to visually represent the theme areas in this section.

**Firm capabilities related to input stage of value chain.**

Evidence suggests that a variety of capabilities may help firms with their activities at the input stage of the value chain:

*Purchasing capabilities.*

Some managers reported that they had developed purchasing capabilities to avoid getting caught in price increases for protein inputs that were not price managed in the supply management context. Evidence from one processor in the BOTH context indicates that some
firms may refuse to quote prices more than a month or two ahead of time for non-supply managed products or for large orders due to price volatility. Some managers ensured all purchasing staff and managers had a precise understanding of cost structures for all products produced (N1413). Several larger firms reported some use of hedging strategies or the use of long term contracts to procuring non-supply managed inputs but this was not mentioned by smaller firms. This might mean that purchasing capabilities may differ between smaller and larger firms because of the smaller volume of input required. Smaller firms may instead focus on building production capabilities to produce specialty products for premium margins. Evidence suggests that procurement for larger firms may also be different for firms in Ontario than in other jurisdictions; managers in larger firms suggested that procurement differences were related to different labelling terminology (for example, antibiotic-free etc.) in each country (J106, line 124) and not specifically to those regulatory policies that supported supply management. Taken together, this evidence may suggest that purchasing capabilities in the Ontario meat processing industry might be related to the nature of the general regulations or to the degree of predictability in the external environment. Evidence suggests that supply management policies may increase predictability for firms as it relates to activities at the input stage so the purchasing capabilities of firms may develop according to the specific regulatory context.

Industry knowledge capabilities.

Evidence suggests that managers stayed informed about products, services and technology in the industry environment by establishing and maintaining relationships with a variety of stakeholders including (but not limited to) trade associations and regulatory agencies. Managers suggested these relationships allowed them to gain valuable knowledge about the industry, for example, information about new equipment, new flavours or spices, or new
packaging. Industry knowledge that was considered valuable to firms included information about all types of general regulations (either current or changes pending); about processing labour and equipment; about sanitation programs and strategies; about additional business networking opportunities; about a variety of marketing and grant programs; about technological and information management systems; and, about future trends in the processing industry. One manager suggested that sharing problems with suppliers was beneficial because they may be able to help with solutions (B22); another suggested that solutions may be found and industry knowledge gained by working with regulators (L1211). Evidence suggests that industry knowledge capabilities at the input stage of the value chain were of value to firms in all contexts to ensure they were up to date about new inputs that could help the firm compete.

Table 4.3 summarizes the evidence described for capabilities related to the input stage of the value chain.

Table 4.3 Firm capabilities related to INPUT stage of value chain.

<table>
<thead>
<tr>
<th>Firm Capability</th>
<th>Results</th>
</tr>
</thead>
</table>
| Purchasing capabilities | May develop differently in supply management context; some BOTH firms identified distinct purchasing capabilities required to acquire non-supply managed inputs, for example, hedging knowledge and limiting advance price quoting. All firms:  
  o Purchasing capabilities relate to breadth of regulatory requirements in industry.  
  Firms using cost strategies:  
    o Short-term pricing only  
    o In-depth knowledge required about cost structures for all products  
    o Hedging strategies  
  In firms using differentiation strategies:  
    o Smaller volume may mean input price not critical  
  In firms that export:  
    o Labelling knowledge required for export markets |
Firm capabilities related to transformation stage of value chain.

Evidence suggests several types of firm capabilities exist in Ontario meat processing firms to help firms transform inputs into outputs:

Industry knowledge capabilities.

The evidence suggests that the ability to gather and maintain knowledge about the industry was important to Ontario meat processing firms in all three contexts. Evidence suggests that managers felt it was important to keep abreast of industry developments related to meat packaging, processing equipment, future consumer eating trends, nutritional knowledge, and societal issues that could impact the meat processing industry in the future. Managers suggested they focused on keeping their industry knowledge current and accomplished this by reading trade magazines or newsfeeds, or by leveraging relationships with industry associations and competitors. Managers of firms with retail operations actively sought information about markets from their customers during transactions; evidence suggested they also relied on informed and knowledgeable staff to relay this information to the management level. Managers of smaller firms also built industry knowledge capabilities with competitors. The evidence suggests that research about the general regulatory environment was an important part of staying informed about the industry and markets for firms across all regulatory contexts. Evidence suggests that some larger firms employed personnel who had industry knowledge capabilities related to general regulations, or to a variety of specific regulations, for example, regulations related to labelling of meat product ingredients, to processing equipment, or to supply management.
regulations; evidence suggest that these industry knowledge capabilities related to specific regulations were important to firms because specific regulatory requirements often differed by jurisdiction both domestically (between provinces) and globally (between counties).

**Human resources capabilities.**

There is evidence that suggests that human resource capabilities may be valuable to firms in all contexts. Some managers noted they were thinking about how to recruit skilled labour for meat cutting (butchering) work, especially since this was challenging throughout the industry. Some managers were involved with initiatives to train or import skilled labour, but some also suggested they were thinking creatively about this challenge. For example, one manager indicated that the firm would train employees who might not usually be considered for certain roles, for example, an employee who had a language barrier. Evidence also suggested that building relationships in the industry could help develop human resources capabilities. Because the industry has a general regulatory environment that is specific to the processing of meat proteins, employees with knowledge about the general regulatory environment could easily move from location to location, be shared by two or more processing firms, or be moved to new plants as business volume fluctuated. Another manager explained that a key operations positions had become vacant and several plant supervisors suggested this position not be filled; instead, the supervisors suggested a creative plan to share these job responsibilities, effectively eliminating the need to search for employees with skills that were hard to find. This evidence suggests that, some Ontario meat processing firms have developed human resources capabilities to help them succeed that allow them to use flexibility and creativity to address threats from skill shortages.
Relationship capabilities.

There is evidence that suggests that firms have developed relationship capabilities that help them succeed. Evidence suggests that managers collaborate with others to build or acquire skills used during processing activities in the firm (D44); if a firm lacked certain skills needed to compete, firms could collaborate with external stakeholders including other firms. Evidence suggests that each collaborative relationship may be slightly different in nature, managers suggested that flexibility was a key attribute of successful collaboration (N1413). This suggests that managers may understand how relationship capabilities allow them to seize opportunities such as the chance to have additional flexibility in an unpredictable external environment. Relationships included those with contacts in the general regulatory environment; one manager suggested that relationships with regulators allowed the use of “off the record advice” (N1413); this manager also suggested that this type of advice was particularly helpful before making an investment. Other managers suggested, however, that regulators were sometimes reluctant to make recommendations to firms in writing to confirm earlier discussions and this was a challenging factor in building relationships with regulators. Evidence suggests that firms in all three contexts were thinking about collaboration with external stakeholders that would help the firm gain flexibility and make good decisions; evidence did not suggest that the desire to collaborate was different by specific regulatory context. Finally, balance was also suggested as an important part of relationship capabilities. Evidence suggested that some managers may have relationship capabilities that helped them judge when to share ideas or industry knowledge with someone and when not to and when to give direction to employees and when not to.
Learning capabilities.

Evidence suggested that firms in all contexts built capabilities to help at the transformation stage of the value chain. For example, managers suggested there may be benefits for processors who participated in subsidy programs that required partnerships in the value chain (G77); solutions to various problems about the business of processing could be shared while managers worked together. Some managers in smaller firms suggested that some regulatory agencies spent less time with managers of smaller firms and more time with managers of larger firms. This may have resulted for a variety of reasons. It may be that larger firms have greater risk due to their processing volume and, therefore, a greater need for oversight that subsequently results in increased or stronger regulatory relationships. It may also be that regulators maximize their limited time resources and interact with fewer, larger firms rather than many, smaller firms to cover more ground. It may also be that smaller processors do not seek out relationships with regulators because they do not have the time resources to do so; or they may not have developed relationship capabilities that help them establish these relationships. Evidence suggests that many managers placed value on the advice of regulators and had developed capabilities to learn from regulators. One manager conveyed that meat processing firms in Ontario are segmented by food safety regulators according to the type of processing done by the firm; firms are categorized for food safety reasons into those firms producing raw products requiring the consumer to cook the product before eating and those firms producing cooked products that only require the consumer to heat and consume the product. The manager indicated that firms who fall into both categories (that is, they process both raw and cooked products) were an “eye opener” (N1413) for some food safety inspectors. This suggests that some food safety inspectors may have expertise for one particular type of processing (either raw or cooked) and have little experience with firms that
conduct both types of processing. This may be related to the small size of the Canadian meat processing industry (inspectors have little exposure to plants processing both cooked and raw product) or the relatively smaller size of plants in the Canadian industry (when compared with China or the United States); it does, however, suggest the extent to which firms processing both raw and cooked product may have to develop expert learning capabilities related to the transformation stage of the value chain. This also suggests that there may be a mismatch between the expert learning capabilities of some meat processing firms and the expert knowledge of regulators who advise these processors.

*Time related capabilities.*

Evidence suggests that time was a valuable, inimitable and non-substitutable resource for all managers; and evidence also suggests that firms have managed this resource by building time related capabilities at the transformation stage. Evidence suggested that managers were aware of time shortages and may make decisions more quickly than they would prefer to; some observed they often had to make trade-offs they could have avoided if there had been extra time available. Several managers described the use of decision making rules during some activities in order to decrease the time it took to make decisions. Indeed, this time shortage may not be unique to managers in the meat processing industry since most managers will at some point confront time shortages, however, in an external environment that is unpredictable, time related capabilities may be all that more important for meat processing industry managers. Evidence did not suggest that any of the trade-offs managers had to make were related to regulatory requirements, but evidence did suggest that dealing with multiple, general regulations required time related capabilities.

*Table 4.4. Firm capabilities related to TRANSFORMATION stage of value chain.*
### Firm Capabilities

<table>
<thead>
<tr>
<th>Firm Capability</th>
<th>Results</th>
</tr>
</thead>
</table>
| **Industry Knowledge Capabilities**    | No evidence to support differences between contexts. Firms in all contexts had industry knowledge capabilities:  
  o About a variety of industry issues, general regulations  
  o Sourced from a variety of channels (staff, retail, competitors)  
  Firms that export may have increased need for industry knowledge capabilities related to labelling and supply management regulations. |
| **Human Resources Capabilities**       | No evidence to support differences between contexts. Firms in all contexts developed human resources capabilities to support:  
  o Training  
  o Promotion  
  o Recruitment  
  o Creative solutions |
| **Relationship Capabilities**          | No evidence to support differences between contexts. Firms in all contexts used relationship capabilities to:  
  o Learn about processing techniques and equipment  
  o Increase flexibility  
  o Inform investment  
  o Share solutions  
  o Inform and balance decision making |
| **Learning Capabilities**              | No evidence to support differences between contexts. Firms in all contexts used learning capabilities to support involvement in industry partnerships  
  Firms in all contexts used learning capabilities to support working closely with regulators:  
  Strength of relationship may differ by size of firm and type of processing |
| **Time Related Capabilities**          | No evidence to support differences between contexts. Time related capabilities involved:  
  o Decision making rules to increase speed of decision making  
  o Dealing with broad and deep regulatory requirements |

**Firm capabilities related to output stage of value chain.**

Evidence suggests several types of firm capabilities exist in Ontario meat processing firms at the output stage of the value chain:
Marketing capabilities.

The evidence suggests that some firms may have marketing capabilities that help them bring products, services and technology to markets. One manager noted that you could “sell a nickel cheaper or sell value” (E55, line 690). This suggests there are two general strategies between which firms can choose: if a firm uses a cost strategy to compete, then firm capabilities that keep prices and costs low will be important to managers; alternatively, if a firm uses a differentiation strategy to compete, then firm capabilities that identify new markets and create value for them will be important to managers. The evidence suggests that some Ontario meat processing firms use differentiation strategies to compete. Managers of these firms indicated they were looking at: new markets, for example, processed meat products for senior living; flavour trends that would translate to new meat products, for example, chipotle; or, complimentary product lines, for example, in house steak sauces. There was also evidence of firms in all contexts identifying and developing niche markets within larger niche markets, or sub-niches. A number of managers in smaller firms discovered sub-niches by observing and interacting with customers in-depth at retail counters and then innovating with new products (for example, new flavours and packaging), cyclical product releases (for example, limited or repeated runs of specialty items), or new services (for example, delivery of meat products). Firms used marketing capabilities to identify sub-niches where they could. Evidence suggests that other smaller firms were also building knowledge and expertise to create meat products that were gluten-free or sodium-reduced or to develop special packaging to assist with in-home preparation. One smaller firm in the SM context noted that only two people in the firm had the technical skills to create a product that was in high demand by customers; the manager described that the labour required to produce the product was high but so was the margin from sales of the product. Evidence suggests
that many firms have developed marketing capabilities related to sub-niches; this may be one way that processing firms using differentiation strategies are capitalizing on emerging or underserved market spaces that may be too small or too trendy for the attention of firms using cost strategies. One manager indicated that unique products developed by the firm would be copied by larger firms eventually, but also indicated that by the time this occurred, the firm would have found other markets to serve. The capability to find sub-niches and market products to these groups of consumers may help to build competitive advantage for smaller firms. These marketing capabilities allow them to offer value-added products to markets. A final note: Two managers in the SM context noted that decisions about value creation in the form of new products were made quickly (C33, L1211) and ensured that the firm could introduce new products, services or technology before competitors. Not only does the evidence support that marketing capabilities are being used by firms in all contexts, but it also indicates that some SM firms have developed marketing capabilities to introduce new offerings quickly. This evidence suggests that policies supporting supply management may not affect the marketing capabilities of firms using differentiation strategies.

Evidence also suggests that firms using differentiation strategies to compete were more likely to have company websites, to send out newsletters by email, and to use social media platforms to communicate with customers and to promote their products and services.

**Table 4.5. Firm capabilities related to OUTPUT stage of value chain.**

<table>
<thead>
<tr>
<th>Firm Capability</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marketing Capabilities</td>
<td>No evidence to support differences across contexts based on supply management regulations.</td>
</tr>
<tr>
<td></td>
<td>Firms developed and used marketing capabilities to:</td>
</tr>
</tbody>
</table>
- Support future growth through new markets, products, services
- Constantly identify and develop niches and sub-niches
- Identify unique technical capabilities and create products with high demand and high margins
- Create new product-service offerings with speed
- Use media technology and social media to promote their products and services

**Firm capabilities related to support activities in the value chain.**

Evidence suggests several types of firm capabilities exist in Ontario meat processing firms that span a number of the support activities of the value chain:

**Strategic assessment capabilities.**

Strategic assessment is an analytical capability that firms use to plan for future growth. Evidence suggests that managers in Ontario meat processing firms in all contexts used strategic assessment to analyze a variety of factors. Evidence also suggest that some managers assessed that future growth would require skilled labour; others suggested that there was a shortage of skilled labour so growth was unlikely. The evidence suggests that some managers may be concerned with changes to government policies about farm workers. One manager suggested that future growth may also mean an increasing need for higher level managerial capabilities (for example, time related capabilities and decision making capabilities) and for more managers with these capabilities. Evidence suggests these capabilities may help some managers make difficult and high risk decisions but some managers explained time to develop these skills was currently not available. Another manager noted that it was important to have several team members involved in decision making because each team member may bring their own knowledge and perspective; the evidence suggests that some managers are using decision making teams to
capitalize on the valuable capabilities of each team member. This evidence suggests that firms in all three contexts are assessing future growth opportunities and see a number of issues related to labour that may limit future growth.

Evidence also suggests that strategic assessment capabilities may be related to time related capabilities (needed to plan for firm growth). Evidence suggests that one firm in the BOTH context indicated that policies supporting supply management were part of the general regulatory environment that may affect growth but did not elaborate. One manager suggested that while a new facility was being built, management had to spend time to deal with regulations about wastewater, regulations related to existing plant operations, regulations about food safety, and regulations about business practices and concerns. This suggests that strategic assessment capabilities may also be related to the number and variety of government-enacted regulations that firms have to manage so they may be related to both time related and regulatory capabilities of firms.

*Practical knowledge capabilities.*

The evidence suggests that practical knowledge capabilities are found in all firms in all contexts. Evidence suggests that managers valued *hands-on or practical knowledge capabilities* in their firms. Managers suggested that practical knowledge gained through books or formal education was incomplete on its own and it was important to have practical, experiential knowledge to succeed in the meat processing industry. In this study, the majority of cases were firms over 30 years of age, many were owner operated, and data collected from firm websites confirms that many were started by a previous generation. It may be, then, that managers who were second generation meat processors had opportunities to gain practical knowledge capabilities from the previous generation. Some managers suggested they had some formal
training in the agri-food area that taught them how the industry worked, taught them basic management skills, or taught them food safety skills; some suggested that practical knowledge capabilities could only develop through experience in the industry and could not be taught in a formal educational setting. Managers also suggested that these practical knowledge capabilities could be used to help make decisions. This evidence suggests that there are practical knowledge capabilities developed through practical experience in the meat processing industry that may not be captured in formal education or training; this also suggests that practical knowledge capabilities may be important, valuable, rare and hard to imitate or substitute resources for firms. It also suggests that practical knowledge capabilities could provide a high barrier for entry to the processing industry and may suggest why so few new firms enter the industry or why larger firms may buy smaller firms as part of a growth strategy.

Some managers suggested they had learned much from both experience and education and suggested that it may have changed their business thinking and actions as a result. Managers indicated that they worked hard to learn from crises (J106) and to create a climate where employees had permission to learn from experiences. Some managers of smaller firms indicated that a desirable skill in the meat processing business was to accept that you can’t really plan because so much can—and does—change and change often. This may impact strategic assessment capabilities previously described because it may decrease the time managers use in planning and assessing activities. This could also indicate that knowledge capabilities may have been learned from others in the industry or may be an emergent set of skills that developed during years of personal experience in the industry. This also suggests that managers in the industry may place less importance on planning activities than is done in other industries because
plans, more often than not, may not materialize; it is simply not practical to emphasize some planning activities in the meat processing industry.

Regulatory capabilities.

The evidence suggests that firms in the meat processing industry may use regulatory capabilities to support firm activities; evidence about supply managed regulatory capabilities are discussed first followed by evidence about general regulatory capabilities.

Evidence suggests that few comments suggesting regulatory capabilities of firms related to the supply management regulations. One manager in a firm in the SM context suggested that if policies supporting supply management regulations were removed, growth of the firm would be necessary and would have to occur quickly if the firm was to survive; this manager also indicated that the elimination of supply management policies would force firms to change their firm strategy since the existing strategy could not be executed successfully without the support of the supply management system. This evidence suggests that any supply management regulatory capabilities that exist for SM context firms may not be applicable in a NSM context (a specific regulatory environment without these policies). If processing firms have invested in developing specific regulatory capabilities necessary to the supply-managed regulatory context, it is also plausible to understand how other levels of the value chain may also have developed resources or capabilities to compete within the supply managed context.

Evidence in the research also suggested that firms may have developed general regulatory capabilities to compete with a wide variety of regulatory requirements. Some managers observed that growth in the meat processing industry meant adhering to general regulations and still having the resources and time to manage firm operations; managers across all three regulatory
contexts suggested frustration with respect to general regulations and firm growth. One manager whose firm had executed growth strategies over the last decade suggested that firm growth would mean extra regulatory work in addition to managing regular operations and said: “Let’s see how that works for you” (L1211). Managers suggested that they had insufficient time resources with which to handle additional regulatory requirements that would arise with growth. One suggested that in order to grow a meat processing business, managers must be ready and willing to confront and manage multiple and complex layers of general regulations. Another described how plans were “thrown out the window” (J106) when regulations changed for animal feed and processed meat ingredients in the past. Evidence suggests that time delays by regulators also frustrate managers and may impact firm plans; one described a time when a funding opportunity took so long to be confirmed by the regulator that a new project was in jeopardy (H88). Evidence does seem to suggest that Ontario meat processing firms in all three regulatory contexts have highly developed regulatory capabilities; evidence suggests that although meat processing managers understand the importance of and need for general regulations, they are frustrated by the challenges that this presents.

While managers attempt to juggle multiple regulations, evidence suggests that some firms do not have time to deal with all the necessary regulations. Managers suggested that they contracted out services such as food safety testing or laboratory testing related to plant or equipment cleanliness. This may suggest that some firms choose to purchase additional regulatory capabilities from industry partners rather than develop these in house. Evidence suggests that some firms have human resources challenges that will limit their general regulatory capabilities in the future; some managers suggested they were considering their retirement from the industry but saw this as a challenge because of the amount of time it would take to build
general regulatory capabilities (B22) in new managers and staff. This challenge faced by these managers may underscore the value of general regulatory capabilities that are necessary for the future success of the Ontario meat processing industry and suggests that regulators could play a role in the education of future meat processing managers.

Relationship capabilities.

Evidence suggests that relationship capabilities were used by firms in all contexts. Managers described the importance of many relationships but particularly those relationships: that had been maintained over time; that were stable and based on mutual trust; and, that were likely to result in collaborative strategies, knowledge exchange and joint innovation. Evidence suggests that relationship capabilities enabled firms to build learning capabilities, particularly during collaborative activity. Managers of some smaller firms described learning through trusted partnerships with competitors in their geographic region over many years; this is interesting because some strategic management tools implicitly assume that rivals represent an external threat rather than an opportunity. Some of these managers described how firms would work together to address customer needs and regional markets by sharing business in a geographic region. Because firms each had different ways of creating value and different target markets in the region, each firm could give other firms space to succeed with their own products and services. The evidence suggests that this type of respectful relationship with competitors may also be related to regulatory capabilities that may be important to firms sharing a specific regulatory environment. The theme of balance in relationship capabilities was also suggested by evidence. One manager described: “I keep my distance but I like to know everybody” (M1312). The way that some managers framed competition may affect the relationships capabilities of the
firm. Managers may work to establish relationships but also consider the needs of the firm and those relationships that are most likely to help the firm succeed.

In addition, there was no evidence to suggest that establishing relationships was more difficult for firms in any of the three regulatory contexts in the study. There is evidence that suggests, however, that smaller processors may find establishing relationships with regulators more challenging than larger firms although they are interested in relationships with many different external stakeholders. This may be the case because: regulators may lack knowledge about how to establish relationships with smaller firms; smaller firms may lack the resources to invest in regulatory relationships; or, there are a higher number of smaller firms in the industry relative to the lower number of regulatory personnel available to establish relationships. Evidence suggests that managers of smaller firms would like to establish relationships with regulators but many find it challenging to do so.

**Time related capabilities.**

Managers in most industries may agree that time is a valuable, rare, and a difficult to imitate or substitute resource, so time related capabilities could help firms invest more time in a variety of other firm activities. Evidence suggests that innovation requires a significant time investment and time related capabilities to manage. Some managers indicated they used suppliers or consultants to take on work the managers considered to be part of innovation in the firm because the firm had less time for these activities than they would like; this may suggest time related capabilities that let firms look to opportunities outside the firm to conduct some activities related to innovation. The evidence also suggested that time related capabilities were important with respect to developing partnerships designed to result in innovation or knowledge exchange. Managers described that some partnerships had been built around lengthy application processes.
for funding from government programs designed to help firms innovate; it may be that time related capabilities help firms continue through lengthy administrative and planning processes such as these. Managers described time delays involved in administration of innovation grants or delays in the receipt of funds; dealing with these delays may indicate time related capabilities that help firms deal with disappointment, for example, when program delays take so long that firms involved in these programs can no longer achieve the goals that the funding program was originally created to support. Managers across all three regulatory contexts in the study described these types of scenarios, however, evidence described earlier also suggests that some managers describe supply managed inputs in positive terms, for example, as having predictable pricing or reliable quality. This may suggest that if certain components of the specific regulatory environment (for example, policies supporting supply management) can support time related capabilities in some firms, then firms may have an increased ability to take on other activities to support the work of the firm, for example, involvement in funded initiatives.

Table 4.6. Firm capabilities related to SUPPORT activities in value chain.

<table>
<thead>
<tr>
<th>Firm Capability</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strategic Assessment Capabilities</td>
<td>No evidence to support differences between contexts. Firms have strategic assessment capabilities that may:</td>
</tr>
<tr>
<td></td>
<td>o Support assessment of growth opportunities and threats, for example: shortages of technical skill and managerial skills</td>
</tr>
<tr>
<td></td>
<td>o Be related to time related capabilities and regulatory capabilities</td>
</tr>
<tr>
<td></td>
<td>o Be developed with multiple perspectives and reside in teams</td>
</tr>
<tr>
<td>Practical Knowledge Capabilities</td>
<td>No evidence to support differences between contexts. Practical knowledge capabilities (gained through industry experience) valued highly by all firms. Practical knowledge capabilities built over time through:</td>
</tr>
<tr>
<td></td>
<td>o Crises</td>
</tr>
<tr>
<td></td>
<td>o Making mistakes</td>
</tr>
</tbody>
</table>
Practical knowledge capabilities support strategic assessment capabilities in that planning may not always be practical in unpredictable industry environment.

| Regulatory Capabilities | No evidence to support differences between contexts. SM policies may support firm strategies. Regulatory capabilities in firms:  
| o supported firm operations  
| o sometimes contracted out  
| o challenged planning activities, growth  
| o related to time related and human resources capabilities  
| o were critical to future of firm, industry |

| Relationship Capabilities | No evidence to support differences between contexts. Used by firms to:  
| o build relationships on trust and stability  
| o maintain relationships over time  
| o increase learning capabilities through collaborative partnerships  
May be related to framing of competition, idea of balancing in relationships. Smaller firms may have greater challenge in building relationship capabilities with regulators than larger firms. |

| Time Related Capabilities | No evidence to support differences between contexts. Used by firms to support innovation:  
| o contracting out innovation activities  
| o combining with relationship capabilities for innovation partnerships  
Used for involvement in funded projects and to support response (resilience?) to delays. SM may support time related capabilities for some firms by saving them time |

**Summary of Themes related to Capabilities in the Firm Value Chain.**

This section described the results about firm capabilities in the firm value chain according to the inputs, transformation and output stages and according to support activities.
4.4.3 Summary of Results

In the previous section, text and a number of tables described the results of analysis in the research. These results from two segments of analysis and next summarized in Table 4.7 and are organized according to the propositions of the research.

Table 4.7. Propositions and Results.

<table>
<thead>
<tr>
<th>Proposition</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Capabilities at INPUT stage of value chain</strong></td>
<td></td>
</tr>
<tr>
<td>Firms in the BOTH context will identify different firm capabilities used for</td>
<td>Proposition was supported. Evidence suggests that <em>Purchasing capabilities</em> may be different</td>
</tr>
<tr>
<td>turkey (SM) inputs and for pork (NSM) inputs required in activities at the</td>
<td>for SM and NSM inputs; firms in NSM context may develop purchasing</td>
</tr>
<tr>
<td>input stage of the firm value chain.</td>
<td>capabilities to conduct price hedging or to avoid restrict price</td>
</tr>
<tr>
<td></td>
<td>quoting to the short term only. Evidence suggests that <em>Industry knowledge capabilities</em> exist for both SM and NSM firms, however, SM firms may have industry knowledge capabilities related to the specific regulatory environment of supply management.</td>
</tr>
<tr>
<td><strong>Capabilities at TRANSFORMATION stage of value chain</strong></td>
<td></td>
</tr>
<tr>
<td>Firms in the BOTH context will identify different capabilities needed for</td>
<td>Propositions were not supported. There were no differences found across</td>
</tr>
<tr>
<td>turkey (SM) products and for pork (NSM) products required in activities at</td>
<td>three contexts related to the capabilities required at the transformation</td>
</tr>
<tr>
<td>the transformation stage of the firm value chain.</td>
<td>stage of the value chain.</td>
</tr>
<tr>
<td>Firms in the SM context will identify capabilities related to the efficient</td>
<td>Evidence suggests firms in both the SM and NSM contexts focused on</td>
</tr>
<tr>
<td>use of turkey products during the transformation stage of the value chain.</td>
<td>efficient use of protein inputs and on developing innovative products.</td>
</tr>
<tr>
<td>Firms in the NSM context will identify capabilities related to</td>
<td>The following capabilities were identified in all firms in each of</td>
</tr>
<tr>
<td></td>
<td>three specific regulatory contexts</td>
</tr>
<tr>
<td></td>
<td><em>Industry Knowledge Capabilities</em> – support variety of industry issues</td>
</tr>
<tr>
<td></td>
<td>which varied by firm but not by context; for example, firms that export</td>
</tr>
<tr>
<td></td>
<td>may have different knowledge capabilities and firms that operate in SM</td>
</tr>
<tr>
<td></td>
<td>contexts may have knowledge related to supply management regulations.</td>
</tr>
<tr>
<td></td>
<td><em>Human Resources Capabilities</em> – support training, promotion, recruitment,</td>
</tr>
<tr>
<td></td>
<td>creative human resources solutions</td>
</tr>
<tr>
<td></td>
<td><em>Relationship Capabilities</em> – support many transformation stage activities</td>
</tr>
<tr>
<td>Capabilities at OUTPUT stage of value chain</td>
<td>Proposition was not supported.</td>
</tr>
<tr>
<td>--------------------------------------------</td>
<td>--------------------------------</td>
</tr>
<tr>
<td>Firms in the BOTH context will identify that different firm capabilities may be required in activities at the output stage of the firm value chain for turkey (SM) products and for pork (NSM) products.</td>
<td>No differences found across three contexts for capabilities at the output stage of the value chain. Firms identified no differences in capabilities required for output of turkey or pork products. The following capabilities were identified in all firms in each of three specific regulatory contexts: Marketing capabilities – support future firm growth, help to identify and develop niches and sub-niches, help to identify unique technical capabilities and create products with high demand and high margins, promote products and services, and help to create new product-service offerings repeatedly and with speed</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Capabilities for SUPPORT activities in value chain</th>
<th>Propositions were supported.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Firms in the SM context will identify capabilities related to SM regulations in the support activities of the firm value chain. Firms in the NSM context will identify knowledge capabilities related to new markets in the support activities of the firm value chain. Firms in the BOTH context will identify capabilities in the support activities of the value chain that may be distinct for pork (NSM) and turkey (SM) processing.</td>
<td>Evidence suggests that Time related capabilities may be different for SM firms and NSM firms; supply management regulations may increase predictability that can support time related capabilities The following capabilities were identified in all firms in each of three specific regulatory contexts: Strategic Assessment Capabilities – to support assessment of growth opportunities and threats; related to time related capabilities and regulatory capabilities; are developed using multiple perspectives and teams that can offer these perspectives Knowledge Capabilities - practical knowledge capabilities (gained through industry experience) support Strategic assessment capabilities because planning activities may not be practical in unpredictable industry environment</td>
</tr>
</tbody>
</table>
4.5 Chapter Summary

This chapter described details of the cases in the research, the steps and framework used in analysis of the data, and the themes from analysis of the data; the chapter closed with a summary table of results organized by the propositions of the research. The chapter also presented evidence that suggests that, with the exceptions of purchasing capabilities, industry knowledge capabilities, and time related capabilities, capabilities do not differ by the specific regulatory context of the firm.
CHAPTER FIVE - DISCUSSION

5.1 Introduction

This chapter discusses the results presented in Chapter Four. Section 5.2 discusses key results of the research and uses these to develop a framework that can describe the market-related capabilities of meat processing firms in Ontario who operate in specific regulatory environments; this framework answers the research question and achieves the objective set out for the research. Section 5.3 describes five contributions of this research. Section 5.4 makes recommendations for policy makers, marketing boards and meat processing firms. Section 5.5 presents limitations of the research. Section 5.6 provides suggestions for future research.

5.2 Framework and Key Results

The primary research question in this thesis was:

*How can we describe the capabilities that firms use to succeed in specific regulatory environments with or without policies supporting supply management?*

The theoretical objective of this research was:

*To develop a framework that can help us understand the capabilities used by firms to succeed in specific regulatory environments where supply management may be part of the set of government-enacted regulations.*

Results from the research are discussed next using a framework that developed to achieve the objective of the research and to answer the research question.
The evidence in this study, taken together, suggested that framing is important to consider when seeking to understand: the mindset of managers at the firm-level of Ontario meat processing firms; the way that managers approach competition; and, the way that managers assess the specific regulatory environment in which their firm operates. Figure 5.1 presents a framework developed to show how framing of three factors may be related to firm capabilities at four stages of the firm value chain. Factors related to framing are discussed next and the importance of framing to firm capabilities is noted throughout; this is followed by a discussion of the market-related firm capabilities suggested by the research results.

![Diagram of Framing and Capabilities at the Firm-Level of Analysis](image)

**Figure 5.1. Framing and Capabilities at the Firm-Level of Analysis.**
This figure illustrates the themes related to framing and how the idea of framing may be related to capabilities at the firm-level of analysis according to the stages of the firm value chain.

**5.2.1 Framing and Manager Mindset**

Evidence suggested that managers in Ontario meat processing firms may use different approaches to the work of the firm; this has been referred to as manager mindset in this research. Firms routinely adopt a variety of strategies to build on opportunities and mitigate threats in their external environment. Evidence suggested there are a variety of ways that firms approach their
work differently within the same industry and this is an idea that is expected when applying a variety of management approaches. For example, some firms may choose to address opportunities and threats by building strategies that focus on delivering value to consumers in new or emerging markets while other firms may choose to build strategies that focus on delivering value to consumers at low cost.

In Appendix C, an analysis of the meat processing industry context used three management tools that were each based on a specific management approaches (for example, Five Forces, PESTLE, Stakeholder analysis). These three tools would be commonly used by managers in many industries to assess the external environment and to help them identify opportunities and threats. The researcher conducted this analysis to prepare for field work, to understand what these tools might reveal about the industry, and to understand how managers might view their industry using these tools. The application of these tools made clear that there are advantages and disadvantages in using these tools. However, using multiple assessment tools for a task also underscores that new insights can be gleaned by using a variety of approaches to examine an issue or problem. This is a similar insight to that which arises from evidence suggesting that manager mindset differs by firm, thereby affecting the way the manager approaches the work of the firm and their assessment of the firm’s external environment.

5.2.2 Framing and General Regulatory Environment

Part of the external environment of Ontario meat processing firms is the general regulatory environment that contains many types of regulation that affect many aspects of firm operations. Evidence has suggested that firms in the Ontario meat processing industry and across specific regulatory contexts describe this general regulatory environment as changing and time
consuming—but also framed this general regulatory environment using a variety of approaches. Put another way, firms do not necessarily frame the general regulatory environment in the same way. Evidence in the research suggested that, across three specific regulatory contexts, firms described the general regulatory environment in both negative and positive ways. Evidence suggested that negative observations include: the challenge of working with regulators (due to lack of personnel, lack of trust, or lack of opportunity); the frequent changes to regulations; the lack of practical knowledge in written policies and in enforcement; the inconsistencies in regulations; the regulatory gaps between jurisdictions; and, the ongoing time resources required to deal with general regulations.

Despite some negative observations, evidence suggested that many firms recognized the general regulatory environment as an important and valuable aspect of the meat processing industry. Evidence suggested that positive observations include the idea that regulations may: offer opportunities for innovation and learning (may depend on mindset of manager); may support social and consumer health objectives (for example, for allergies or food safety); may supporting industry marketing efforts through labelling regulations; and, may provide assistance to meat processing firms via inspectors and/or regulatory personnel.

On a related theme, evidence also suggested that managers view their relationships with regulators in a variety of ways; some firms wanted closer ties to regulators and competitors alike despite challenges in establishing and maintaining these relationships. There may be several possible reasons for this: firms may have developed relationship capabilities that lead to relationships that can support time related capabilities; firms may need relationships to assist in the development of regulatory capabilities; or, firms may be responding to forces in the industry environment and must establish relationships to support industry knowledge capabilities. The
evidence suggested that policies supporting supply management provide support for some firm strategies but also that firms would like to forge stronger relationships with supply management regulators; evidence suggests that this could be viewed as an opportunity for firms and policy makers alike.

**5.2.3 Framing and Specific, Supply-Managed Regulatory Environment.**

Part of the general regulatory environment for some Ontario meat processing firms are the *specific regulatory environments* in which processing firms operate with (or without) policies supporting supply management. Here, too, evidence suggested that framing is important to consider. Evidence suggested that the impact of a wide range of government-enacted regulations in the meat processing industry was of more concern to firm managers than were supply management regulations specifically. Evidence suggested that supply management policies were described in both positive and negative or neutral terms by firms in the research. Evidence also suggested that supply management policies were *not* mentioned by firm managers when they were asked about threats and opportunities in the general regulatory environment. In fact, evidence suggested that other government-enacted regulations that had greater relevance for meat processing firms across all three contexts than did policies supporting supply management.

Some evidence suggested that some firms competing with a *cost strategy* may frame supply management regulations as a threat due to the restrictions the regulations place on volume discounts for inputs or volume limitations due to quota. However, supply management regulations were *not* the set of regulations noted when these managers were first asked about threats and opportunities in the general regulatory environment. Even after probing about the specific, supply-managed regulatory environment, evidence suggested that managers did not always frame supply management regulations as a *threat* for the firm. This underscores evidence
suggesting that meat processing firms in Ontario may frame the *general regulatory environment as a threat* but may not frame the specific supply-managed regulatory environment as a threat.

Evidence also suggested that some firms competing with *differentiation strategies* may frame supply management regulations in a positive way, that is, as regulations that presented opportunities. Evidence suggests that managers in the specific, supply-managed regulatory context saw benefits from working with supply management policies because they supported consistently high input quality and predictable pricing that saved managers time by eliminating or reducing the need to negotiate prices or quality. By saving firms time and by increasing the predictability of animal protein quality and pricing, supply management policies may be creating value and reducing the threat for meat processing firms that operate in a general industry environment described as unpredictable. By reducing the threat in the general regulatory environment, supply management regulations may be supporting the competitiveness of those firms in specific supply-managed environments.

### 5.2.4 Market-related Firm Capabilities

Evidence suggested that Ontario meat processing firms have developed a variety of capabilities related to markets that help to build and maintain primary activities at the input, transformation and output stages of the value chain and build and maintain support activities of the firm. Firm capabilities suggested in the evidence may each help firms bring products, services and technology to markets in the Ontario meat processing industry; they are categorized broadly as *market-related capabilities*. Evidence suggested ten market-related capabilities that may be used by Ontario meat processing firms. These capabilities are organized in Table 5.1 according to the stage in the firm value chain where they were suggested by the evidence and indicated by an “X” in the table. Capabilities noted by a boldface “X” and shaded cell are those
that evidence suggests may differ by specific regulatory context. For example, evidence suggested both purchasing capabilities and industry knowledge capabilities at the input stage and time related capabilities in support activities may be different for firms processing inputs from a supply-managed regulatory environment when compared with firms that do not process inputs from a supply-managed regulatory environment. The market-related capabilities of firms in the Ontario meat processing industry suggested by evidence are summarized next by stage of the value chain.

Table 5.1. Market-related Capabilities of Firms Suggested by Evidence.

<table>
<thead>
<tr>
<th>Market-related Capability</th>
<th>INPUT</th>
<th>TRANSFORMATION</th>
<th>OUTPUT</th>
<th>SUPPORT ACTIVITIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Purchasing</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Industry Knowledge</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Human Resources</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Relationship</td>
<td>X</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>5. Learning</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Time Related</td>
<td>X</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>7. Marketing</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>8. Strategic Assessment</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>9. Practical Knowledge</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>10. Regulatory</td>
<td></td>
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At input stage.

Results describe that purchasing capabilities and industry knowledge capabilities are used at the input stage of the value chain to help firms purchase inputs. The evidence describes that some firms in the BOTH context identified that they needed purchasing capabilities to hedge markets for some non-supply managed inputs and to manage risk by limiting advance price quotations. Industry knowledge capabilities were required by all firms; firms that exported required knowledge about these markets.
At transformation stage.

Results also described a number of firm capabilities used at the transformation stage of the value chain. *Industry knowledge capabilities* were suggested by the evidence at this stage; firms in all contexts used these capabilities to gather information about a variety of issues, including all regulatory policies, and sourced this information from a variety of places including external stakeholders, for example, customers and competitors. Firms that export products again may have high industry knowledge capabilities to support labelling regulations and, in the case of firms that exported supply managed products, they required *industry knowledge capabilities* about supply management policies. Results describe that firms also had *human resources capabilities* that supported training, promotion, recruitment, and creative solutions for human resources challenges. Firms in all contexts used *relationship capabilities* to learn about processing techniques and equipment, to increase their overall operational flexibility when and where possible, to inform investment decisions, to share solutions, and to help inform and balance decision making for operations. Firms used *learning capabilities* during the transformation stage in all contexts to support involvement in industry partnerships including those with regulators; results describe that *learning capabilities* may be related to *relationship capabilities* as the strength of relationships may differ by firm size or type of processing done by the firm. *Time related capabilities* were also used by firms in all contexts to support operational decisions (increased speed of decision making) and to help them deal with broad range of regulatory requirements.

At output stage.

Results in the research describe the *marketing capabilities* used by firms to support activities at the output stage of the value chain. Firms across all contexts developed *marketing*
capabilities to support the strategy of the firm and to support future growth. Firms using differentiation strategies to compete used marketing capabilities to identify and develop niches and sub-niches and to create new product-service offerings with speed; despite their often smaller size, firms using differentiation strategies used social media and technology to promote their products and services to customers.

For support activities.

Results in the research described a number of capabilities that firms developed for use in support activities that provided a platform for primary activities of meat processing. Strategic assessment capabilities were used in all contexts to assess threats and opportunities in the external environment. Strategic assessment capabilities were those that helped firms develop multiple perspectives about their external environment. These capabilities were built across teams in some firms and evidence suggested they may be related to time related capabilities and regulatory capabilities. Practical knowledge capabilities were described for firms in all contexts; these capabilities were highly valued by all firms and helped to support firms over time and during times of crisis or when mistakes were made. These capabilities were also identified as valuable in an unpredictable external environment and may provide support to firms when formal planning is not possible due to time constraints. Regulatory capabilities were described for firms in all contexts; these capabilities provided important support for firm operations particularly because of the breadth of regulatory requirements in the industry. Some firms would contract other firms to augment regulatory capabilities due to a lack of time to build or develop these in-house. Relationship capabilities could be described for firms in all contexts and were used to build relationships with the goals of providing trust and stability in relationships, to maintaining relationships over time, and to increase learning capabilities. Relationship
capabilities may be related to the theme of framing and the idea of balance. Results suggest that smaller firms may have greater challenges in building relationship capabilities than larger firms for a variety of reasons. Finally, time related capabilities were suggested by evidence for firms in all contexts. These capabilities could be supported by contracting out some time-consuming innovation activities and, when coordinated with relationship capabilities, can support innovation partnerships. Time related capabilities may be supported by the specific, supply management regulatory environment for some firms by saving them time by removing some decisions from the purview of the firm.

To summarize, results from this research describe ten, market-related capabilities used by meat processing firms in Ontario to address opportunities and threats in their external environment. Three capabilities—purchasing, industry knowledge, and time related—may differ for firms using supply managed inputs; that is, a specific regulatory environment with policies supporting supply management may help firm support activities and help primary activities in the input and output stages of the value chain.

The use of management approaches in this research allowed the researcher to describe how firms frame their general regulatory environments and describe the market-related capabilities that firms in these environments have developed to seize opportunities and mitigate threats.

5.2.5 Firm-level Competitiveness in Supply-managed Regulatory Environments

In a sector—like the turkey sector in the meat processing industry—with supply management policies in the specific regulatory environment, approaches using economic theory understand market-level impacts by focusing on limits to production from quotas; these
approaches argue that limits to production and price setting stifle firm competitiveness along the
value chain and result in higher prices for consumers. These approaches rarely consider the
demand implications of supply management policies nor do they consider firm-level
competitiveness where decisions are made by managers about how the firm chooses to compete
in the sector. To consider competitiveness at the firm-level and to consider competitiveness of
firms in the middle of the value chain, therefore, management theories may provide useful
perspectives. This research has demonstrated the application of three management approaches,
each with a distinctly useful perspective about how firms compete in a specific regulatory
environment found in the Ontario meat processing industry. Chapter Two described three
management approaches and how each might view firm-level competitiveness. Threads from
each theory are used next to discuss firm-level competitiveness using market-related capabilities
for specific regulatory environments found in the Ontario meat processing industry.

First, Resource-Based Theory (RBT) offers insights about how the specific or general
regulatory environment may affect economic rents earned by firms or influence the types of
resources that firms control. For example, firms using supply managed inputs cannot control the
quantity, price or quality of the resources (protein inputs) they must purchase. RBT might
consider, therefore, that superior rents are less likely to be achieved in specific supply managed
environments. Further, RBT suggests that without resource heterogeneity, competitive advantage
is less likely to be achieved through resource value, rarity, inimitability, or substitutability
(VRIN). The large number of Ontario meat processing firms that process two or more animal
proteins suggests that resources (in the form of protein inputs) themselves may not be the basis
for firm competitiveness; firms may instead compete by using industry knowledge capabilities to
process multiple types of animal protein and create VRIN through a broader product-service offering.

Second, Capabilities Theory—viewed as an extension of RBT—offers insights about sustained competitive advantage firms by looking at a variety of capabilities as complex, intangible and interrelated skills and competences developed by firms to help them compete over time. The useful thread in Capabilities Theory is the idea that firm capabilities can be developed—irrespective of resource homogeneity that may exist in specific regulatory environments—that may help firms compete over time. Firms that achieve the greatest success may be those that develop capabilities that are VRIN so it may be that processing firms in supply-managed regulatory environments compete by developing capabilities that are VRIN (for example, industry knowledge capabilities for specific regulatory environments) or by developing capabilities that contribute to competitive advantage in other ways (for example, time related capabilities that increase the predictability for processors). By considering capabilities as distinct from resources means that they can be examined as a possible source of competitive advantage for firms even when resources are not heterogeneous.

And third, but to a lesser degree, Stakeholder Theory offers insights by looking at value creation opportunities with external stakeholders. The theory posits that firms that cooperate socially by seeking out and establishing relationships with external stakeholders, may generate win-win outcomes allowing them to compete. Using a Stakeholder approach suggests that relationship capabilities may be important for firms and that firms that develop relationship capabilities with external stakeholders will be competitive while those firms that do not develop these relationships will not. Evidence in the research suggests that all meat processing firms had relationship capabilities that they employed during transformation and support activities in the
firm value chain. A stakeholder approach considers firm competitiveness to result from value creation with stakeholders; for firms in the Ontario meat processing industry, the evidence about relationship capabilities suggests that firms see value in relationships with regulators, both general and specific. Considering a Stakeholder approach means that firm relationship capabilities can be seen as contributing to firm competitiveness over time.

Because evidence has also suggested that firms may not have the same mindset, the same assessment of the specific or general regulatory environment, or the same approach to competition, it is perhaps not surprising that firms can also adopt a variety of strategies to reduce the negative impacts and increase the positive impacts they have assessed. Just as multiple management theories each focus on a different aspect of what helps firms achieve their goals, evidence in this study suggests there are a variety of ways that firms in an industry may choose to frame their general regulatory environment and assess opportunities and threats therein. For example, some firms may choose to address opportunities and threats by building strategies and capabilities around delivering value to consumers in new or emerging markets while other firms may choose to build strategies and capabilities that focus on delivering value to consumers at low cost.

In Appendix C, an analysis of the meat processing industry context applied three management tools that are each based on a specific management approaches (for example, Five Forces, PESTLE, Stakeholder analysis). These three tools are commonly used by managers to assess the external environment of the firm and to help them identify the opportunities and threats in the environment. The analysis also described possible drawbacks of assessments using tools that may rely on past information or trends, may not consider firm-level capabilities, or may not consider time resources of firms. This may indicate a need for new approaches to look at
firm-level competitiveness that are useful in unpredictable environments, that situate firm
capabilities as an internal response of the firm to these environments, or that assist firms in
prioritizing stakeholder relationships that will best with the strategy of the individual firm.

5.3 Contributions

This research makes five important contributions to the literature.

5.3.1 Market-Related Capabilities in Supply-Managed Environments

First, this research suggests that there are a ten market-related capabilities used by firms
in the Ontario meat processing industry to compete. These capabilities are largely similar for
firms in each of three contexts with respect to supply management regulations; however,
evidence has suggested that three market-related capabilities may differ for firms that procure
supply-managed inputs: purchasing capabilities and industry knowledge capabilities at the input
stage of the firm value chain; and, time-related capabilities in the support activities of the firm.
Evidence has also suggested that each of the three capabilities that differ by specific regulatory
context may be important to help firms address the threat of unpredictability in the general
regulatory and industry environments.

5.3.2 Firm-Level Competitiveness and Supply Management Regulations

Second, this research also makes a contribution to understanding about how supply
management policies that are often viewed as supportive of animal protein producers only may
affect firms farther along the value chain, such as meat processing firms. This research suggests
that the impact of general and specific regulatory environments on firm competitiveness is not
consistent among firms in the industry. The research suggests that some processors frame
impacts from supply management regulations as positive, others frame impacts as negative, and
some frame the impacts as neutral and approach them with little concern. This is an important contribution because the results suggest that assumptions about the impact of supply management regulations on the competitiveness of the Ontario meat processing industry may not apply to all firms.

5.3.3 Framing and Firm-Level Assessment of External Environment

Third, this research advances knowledge about the way that framing by firm managers may affect approaches to threats and opportunities in the firm’s external environment. Evidence in this research suggests that managers in the Ontario meat processing industry are not necessarily similar in the way they approach competition or the work of the firm or in the way they frame their external and specific regulatory environments. Evidence does, however, suggest that the lack of predictability in the general regulatory environment may be an assessment shared by all managers in the Ontario meat processing industry; evidence suggests that this lack of predictability may contribute to the types of market-related capabilities that firms develop in order to compete, for example, purchasing, industry knowledge or time related capabilities that each help firms increase predictability. This contribution is important because it challenges some meat processing industry reports that conclude that the meat processing industry is not competitive and that government-enacted regulations are in large part to blame; evidence suggests, however, that specific regulations like supply management may, in fact, increase predictability for firms in this specific regulatory context.

In addition, this research provides additional insights into the generic strategies in use by firms in the Ontario meat processing industry and into the size of firms in the industry. Evidence suggests that smaller firms may be more likely to compete using differentiation strategies that allow them to create value for specific markets while larger firms may tend to focus on cost
strategies that succeed based on efficient production and high product volumes and plant capacity. Evidence suggests that each of these generic strategies can be successful and growth can occur using either strategy but that the nature of this growth may be different in each strategy. Firms using a cost strategy may frame growth according to physical scale while firms using a differentiation strategy may frame growth according to qualitative improvements. This is important because some reports have suggested that growth in scale and size is necessary for industry success; this suggestion does not account for firms that have sustained success over decades using differentiation strategies and evidence in this research supports this idea.

5.3.4 Pluralistic Approach to Study of Firms in an Agri-Food Industry

Fourth, the research contributes to the literature about firm-level competitiveness and capabilities in the meat processing industry that has been limited largely to examinations by economics-based scholars. This has meant that firm-level competitiveness and specific supply-managed regulatory environments have been largely understood from market-level, analytical, economics-based approaches that examine market-level supply and demand. This research has demonstrated that a pluralistic approach can be applied to increase our understanding of agribusiness and advance knowledge about firm-level competitiveness in an agribusiness setting.

5.3.5 Application of Management Approaches to Practical Problem

Fifth, the research contributes by demonstrating the use of threads from several management theories to a practical problem about how market-related capabilities can be described in specific regulatory environments of a specific industry. In particular, this research demonstrates the usefulness of using management theories to advance understanding where there may be knowledge about a general regulatory environment that has been studied largely using one approach or when there is a practical problem such as how firms achieve their goals in
specific regulatory environments. The use of management theory can suggest alternate approaches to the study of firms and how they continue to operate in general and specific regulatory environments. By applying management theory to understand a practical problem, this research demonstrates that different approaches can be applied to practical problems in order to develop a framework to help increase understanding about firm-level competitiveness in specific regulated environments.

At the beginning of this thesis, a question was asked: How can we understand the success of meat processing firms in Ontario using approaches that are not traditional economics-based, analytical approaches? Evidence in this study has suggested that firm managers in the Ontario meat processing industry may themselves not rely on a single approach to understanding how they can help the firm succeed. The industry environment in which meat processors operate may be characterized by a lack of predictability and a range of general regulatory requirements, however, evidence suggests that managers of firms in the industry may not restrict their approach to understanding threats and opportunities in their regulatory environment to tools based on economics-based approaches. Evidence suggests that managers use a variety of approaches to compete in an unpredictable external environment and firms across and in three specific regulatory contexts have developed a wide variety of capabilities to support their success. Specifically, firms in the supply-managed context may have developed market-related skills and competences such as purchasing capabilities, industry knowledge capabilities and time related capabilities that help them to compete.

This research also provides new insights into the nature of firm capabilities in the meat processing industry in an external environment characterized by a broad set of general regulations. This research suggests that the development of firm capabilities may be connected to
a lack of predictability in the external environment of the industry, the nature of the general and specific regulatory environments in an industry, and/or related to the generic strategy by which firms compete. Firms in the meat processing industry may develop market-related capabilities that help them create value and bring products, services and technology to the market; relationship capabilities that help them save time resources, collaborate and increase their flexibility; time-related capabilities that help them understand the nature of animal protein inputs; balancing capabilities that help them balance a variety of tensions; and, improvising capabilities that help them succeed in an unpredictable industry environment. It also suggests that industry managers who have developed the capability to balance a variety of factors may help them be flexible and adapt to changes in the industry environment or in government-enacted regulations affecting industry firms. These insights are valuable because they suggest firms develop capabilities that may help conserve scarce time resources or remain flexible and agile in unpredictable environments. These insights are also important because it suggests that both time shortages and lack of predictability may drive firm capabilities to a greater degree than does the specific regulatory environment. These insights also suggest that some reports focusing on negative aspects of the supply-management policies have failed to address the ways in which supply management policies affect firm-level competitiveness for the better by saving time resources, by decreasing waste and encouraging efficient use of resources, by decreasing risk for firms in the industry, or by providing continuity of earnings for firms in this specific, regulatory context.

5.4 Recommendations

The results of this research are the basis for recommendations for policy makers in government and marketing boards and for managers of processing firms. The history and politics
of supply management policies in Canada are not new, however, because of the historical and political legacy around this set of specific regulations, many (if not most) discussions about supply management policies often become argumentative or antagonistic and do not proceed beyond a list of entrenched criticisms or defenses. Because the background of the researcher did not include knowledge about the agri-food industry or about supply management policies, one of the interests in conducting the research was to understand how a management approach could add value to an often contentious topic. The recommendations presented next are those of someone with little knowledge of supply management policies (prior to conducting this research) or knowledge about the business of meat processing; the following recommendations are, thus, those of someone with no previous preconceptions.

5.4.1 For Policy Makers in Government

The results in this study also suggest that firm size and the type of processing performed by the firm are two factors related to other issues. The evidence suggests that many firms in the meat processing industry—both larger and smaller—may already realize there are some differences in the issues faced by processors of different sizes. This is perhaps suggested by the fact that there are separate industry associations that tend to represent interests of larger processors (for example, Canadian Meat Council) and smaller processors (Ontario Independent Meat Processors) in the meat processing industry. In order to address the interests of smaller and larger firms, policy makers may wish to consider how they can scale their policies to encourage growth by firms that tend to follow a generic cost strategy and those that follow a generic differentiation strategy. The evidence suggesting that government-enacted regulations may have different impacts on primary or further processing activities is also important. Further processing
may be key to offering firms additional value creation opportunities that cannot be capture by primary processors.

Because evidence has suggested that managers are concerned about the time it takes to manage regulatory requirements, it would be valuable for policy makers to consider regulatory systems that may help managers conserve their time resources. Policy makers could consider how regulatory programs are developed, introduced to industry, or managed. They could consider offering additional support to smaller firms that may not have the time resources to handle management of a larger regulatory burden as do larger processors with many departments and greater human resource availability. Initiatives such as on-site training, assisting firm staff, or development of handbooks aimed at processors with various strategies could help firms understand how best to manage regulatory requirements with minimal time investment. The development of tools that are targeted according to firm strategies may help to regulators to establish relationships with smaller processors; this, in turn, may also serve to increase regulators’ understanding of firms that use a differentiation strategy and perhaps results in policies that are better translated for some firms in the industry.

5.4.2 For Policy Makers in Marketing Boards

As explained earlier, the recommendations presented here are those of someone with no previous preconceptions about the subject of study. In the review completed for this study, the researcher did not encounter any work that thought about how marketing boards and firms could work together and support strategies used by firms to compete in the meat processing industry; most work noting relationships noted issues where boards and processing firms were on two opposite sides. The evidence in this study, however, suggests that meat processing firms operating in specific supply-managed regulatory environments may welcome new opportunities
to build relationships and share information and ideas with marketing boards that regulate production and marketing through quotas. Evidence suggested that these firms are willing to invest time and effort into these relationships because they can benefit from a deeper understanding of how supply management is executed by boards. In order to successfully create and build relationships between firms and boards, however, it is likely that additional board staff should be made available for this time consuming but valuable work. It is also important that boards and firms trust each other if relationships are to be successful; evidence suggests that trust in relationships with regulators was important for many managers who were willing to work with regulators. Because relationships based on trust may take several (or many) years to establish, this recommendation is long term in nature.

Evidence in this research also suggests it may be important for all types of marketing boards to understand that managers in processing firms further along the value chain may not frame things similarly; that is, they may have different mindsets, they may not view their general regulatory environment in the same way, and they may not approach competitiveness similarly. Marketing boards may wish to consider that because of differences in framing, firms differ in the strategies by which they choose to compete. It may be valuable for marketing boards to understand which firms have strategies that may be more likely to value certain capabilities that could be developed in partnership with marketing boards. An understanding of this potential may lead to new initiatives and partnerships that could create value for value chains, for meat processing firms, and the meat processing industry in Ontario.

Evidence in this research also suggested that many meat processing firms operate in what they consider to be an unpredictable external environment with constant regulatory change. This suggests that initiatives or programs developed or modified by marketing boards that can
consider the shortage of time resources of firms will be more likely to receive positive reaction when introduced and may be more likely to be integrated in a timely fashion. In particular, evidence in this research suggests that marketing boards that regulate production through quotas should be encouraged to understand and clearly articulate the value of the predictability they bring to some firms in the meat processing industry. These boards might also consider time resources and predictability when future reforms are being discussed. The evidence suggests clearly that meat processing firms view a lack of predictability as a threat in the external environment; this, in turn, suggests boards may find a friendly audience for any initiatives that could increase predictability for these firms.

5.4.3 For Meat Processing Firms

The evidence in the study has also suggested that firms have developed capabilities that help them balance various tensions and may also have both practical experience about management and formal training in the industry. The development of these capabilities suggests that managers of meat processing firms would be receptive to new approaches and new tools that may help them assess or think about unpredictable external environments.

The results from this study may help meat processing managers to think about their firm capabilities vis-à-vis their general and specific regulatory environments if they had not yet done so. Firm capabilities in the food processing industry have largely been discussed based on knowledge about firms in other industries; it may be important to understand the relative value of various capabilities in the general regulatory environment of the meat processing industry. Managers may also consider the components of firm strategy explicitly with respect to the ten capabilities suggested by this research. It may be a helpful exercise for managers to assess how
various market-related capabilities may add to firm flexibility, agility or the ability to adapt to an unpredictable industry environment.

Firm managers may also wish to take inventory of their relationship capabilities. Results in this research suggest there are meat processing firms that are successfully adopting new and cost-effective ways to establish relationships with a number of external stakeholders. Some have refocused on customer responsiveness and others have made sophisticated and persistent use of social media to create, build and maintain these relationships. Creating conversations with external stakeholders can help knowledge exchange between the firm and the external environment and may save managers time elsewhere on researching new products ideas or getting customer feedback, for example.

5.5 Limitations

The case method of research was an appropriate method by which to study the objective of the research; it gave flexibility to the researcher to both learn and analyze while collecting data about a phenomenon for which there was no existing theory. The interview protocol in its visual form, along with the semi-structured approach to the interview and the experience of the researcher, enabled the researcher to explore the way that meat processing firms understand their environment and the way they develop capabilities to compete in the meat processing environment. The method also permitted the researcher to address the reality of the Ontario meat processing industry in terms of the low number of firms in the SM and NSM contexts by capitalizing on replications in the BOTH context and by incorporating questions that directly asked participants operating in both SM and NSM contexts to share similarities and differences in their firm activities for supply-managed and non-supply-managed inputs.
Several points should be noted. First, all managers interviewed in this research worked in firms that were successful as defined by their existence at the time of data collection. It would be interesting to have included interviews with managers of failed meat processing firms in order to describe the capabilities in these firms; many firms closed in the late 2000s when government-enacted regulations regarding meat inspection in Ontario changed. Not only would it be difficult to locate some of these individuals but inquiries made by the researcher also indicated that several of these individuals would not have been willing to recall their experiences. Second, there are few meat processing firms that operate in the supply managed only (SM) that process turkey; there are more processors that process both turkey and chicken but interviewing these firms would have complicated analysis because of the possible impact of two sets of different supply management policies. In addition, because of recent industry consolidation and closures, there were (and are) few firms that could be classified in the non-supply managed (NSM) context that process only pork. When managers in the SM and NSM contexts could not be contacted or would not agree to an interview, there were few other firms that could be contacted as replacements. This challenge was addressed as much as was practically possible by relying on data from firms in the BOTH context and prompting managers to share differences between processing of pork and processing of turkey. This strategy was used with some success, in part because of the flexibility of the research method chosen.

5.6 Suggestions for Further Research

Given that traditional, economics-based approaches have often been applied to analyses of agri-food firms in the past, this researcher recommends that further research be undertaken of these firms using multiple management theories and pluralistic approaches. Specifically, research could be conducted to empirically test the presence of specific capabilities identified in specific
supply-managed regulatory environments. In addition, the design used in this research could be applied to other industries with unpredictable external environments to test the external validity of the findings. Another suggestion is to conduct a more rigorous method for evaluating firm capabilities, particularly time related capabilities because of their value as suggested by evidence in this research.

The results of this research suggest there are many ways for firms to frame external environments in future research. This result represents an opportunity for scholars to create or modify existing tools used by managers to assess the industry and general regulatory environments using different approaches. For example, it might be helpful to construct a tool that is flexible enough to incorporate several management approaches that help managers examine threats and opportunities in their external environment and to identify the capabilities that should be developed to help the firm succeed. In addition, new tools that incorporate different approaches may also help some managers think about alternate ways to frame the external environment, particularly as this environment will continue to change.

Last, there are other factors that could be investigated in future research related to various firm characteristics. Evidence in this research suggests that the strategy chosen by the firm may be related to the market-related capabilities that the firm develops and uses to compete. Future research may examine how firms choose between strategies, how these decisions may be affected by policies supporting supply management, and how growth strategies are framed within specific regulatory environments. Future research could also investigate capabilities of firms that export versus those firms that do not in order to identify capabilities that help achieve competitive advantage in these markets. The type of processing (that is, primary or further) could also be investigated further by examining the how firms use market-related capabilities to
compete according to type of processing activities. It would also be interesting to investigate how the practical knowledge capabilities of firms could be described with respect to firm age. And, finally, firm capabilities could also be investigated with respect to the degree to which the firm has integrated vertically.
REFERENCES


Dinnissen, S. (2015, August 6-11, 2015). [Phone and Email Correspondence].


Food and Beverage Ontario. (2014). Food and beverage processors tap into public sector market [Press release]. Retrieved from [link]


Mas, S. (2013). 5 ways the Canada-EU trade deal will impact Canadians | Politics | CBC News. 2015 (October 25).


from


Appendix A - Non-Academic Sources of Information used in Literature Review

This appendix describes non-academic sources of information about competitiveness and innovation that were reviewed for this research. While reviewing, specific attention was paid to the following questions:

- What framework was used to assess the problem?
- How was competitiveness defined, measured, or approached?
- What peer-reviewed literature supported the assessment?
- What were the assumptions made in the study, either explicitly or implicitly?
- What data was reported? Was primary or proprietary data used in the study? Could the study be replicated?
- What agency or body sponsored the work, if any or if discussed? What attempts were made to reduce any bias in the research?

A number of the questions above would be asked of academic work, an interrogation that is part of the peer review process and a tactic meant to challenge the work and increase quality of the study and the reliability of the findings.

In reviewing a number of non-academic sources of literature, however, it was often unclear if the work had been reviewed by an independent expert unconnected with the organization. In other cases, works cited sources from non-academic sources or cited sources previously authored by the same organization. Some academic work was cited in many reports, at least occasionally. Some reports contained findings that were not linked to specific data sources; these were generally treated as opinion. Most non-academic sources did not, as one might expect, use theory as the basis for the report or study, however, there was also a failure to declare the approach or perspective taken in the document; in these cases, the researcher had to infer the writer’s perspective from the implicit assumptions that were made in the report or from the mission of the organization sponsoring the report. Further, data used to reach conclusions in many reports was proprietary in nature or the data sources were only vaguely referenced. This made it difficult—and in many cases, impossible—to find the data or replicate the study.

A failure to clarify the fundamental assumptions behind the approach to examining competitiveness could also be extended to some academic papers. For example, in the economics
and management disciplines, the vast majority of work seemed to assume that the reader already understood and accepted that free markets are best and the laws of supply and demand are a given. Behavioural economists, for example, Schumacher (1973) or Shah & Dawney (2005) have noted this assumption in much of economics. Because of the history of the management field, management literature may also make the same assumptions.

Tables A1 and A2 follow: Table A1 lists organizations with a link to the meat processing industry or organizations that have published reports that address the Canadian or Ontario meat processing industries.

**Table A1. Organizations used as Information Sources and Their Mission.**

<table>
<thead>
<tr>
<th>Name and Website</th>
<th>Mission</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conference Board of Canada <a href="http://www.conferenceboard.ca/">http://www.conferenceboard.ca/</a></td>
<td>“We are dedicated to building a better future for Canadians by making our economy and society more dynamic and competitive” (Conference Board of Canada, 2015)</td>
</tr>
<tr>
<td>Canadian Agri-Food Policy Institute <a href="http://www.capi-icpa.ca/">http://www.capi-icpa.ca/</a></td>
<td>“The Canadian Agri-Food Policy Institute (CAPI) is the place for agri-food leaders to come together, share insights and advance ideas on emerging issues facing this important sector” (The Canadian Agri-Food Policy Institute, 2015)</td>
</tr>
<tr>
<td>Canadian Agricultural Innovation and Regulation Network <a href="http://www.ag-innovation.usask.ca/">http://www.ag-innovation.usask.ca/</a></td>
<td>“The objective of the Canadian Agricultural Innovation and Regulation Network (CAIRN) is to bring researchers together to study the processes of agricultural innovation while proactively engaging government, industry, and the public in an effort to improve the agricultural innovation system in Canada” (Canadian Agricultural Innovation and Regulation Network, 2015)</td>
</tr>
<tr>
<td>Fraser Institute <a href="http://www.fraserinstitute.org/">http://www.fraserinstitute.org/</a></td>
<td>“The Fraser Institute publishes peer-reviewed research into critical economic and public policy issues including taxation, government spending, health care, school performance, and trade” (Fraser Institute, 2015)</td>
</tr>
<tr>
<td>MacDonald-Laurier Institute <a href="http://www.macdonaldlaurier.ca/">http://www.macdonaldlaurier.ca/</a></td>
<td>“The Macdonald-Laurier Institute for Public Policy exists to make poor quality public policy unacceptable in Ottawa. We will achieve this goal by proposing thoughtful alternatives to Canadians and their political and opinion leaders through non-partisan and independent research and commentary.” (MacDonald-Laurier Institute, 2015)</td>
</tr>
</tbody>
</table>
### Name and Website | Mission
--- | ---
**Montreal Economic Institute**
http://www.iedm.org/e | “…an independent, non-partisan, not-for-profit research and educational organization. Through its publications, media appearances and conferences, the MEI stimulates debate on public policies in Quebec and across Canada by proposing wealth-creating reforms based on market mechanisms. It does not accept any government funding” (Montreal Economic Institute, 2015)

**Canada West Foundation**
http://cwf.ca/ | “Our mandate is to explore public policy issues of particular interest to western Canadians, to test national policies against regional aspirations and to ensure an effective regional voice in national policy discussions and the national political process” (Canada West Foundation, 2015)

**George Morris Centre**
http://www.georgemorris.org/ | “As Canada’s leading economic agri-food research centre, the Centre was national in scope, international in outlook, independent in position and believed in the importance of provoking informed dialogue and debating issues that fostered excellence and the economic stability and wellbeing of Canada’s agri-food sector” (George Morris Centre, 2015)

**Organisation for Economic Co-operation and Development**
http://www.oecd.org/ | “To promote policies that will improve the economic and social well-being of people around the world” (Organisation for Economic Co-operation and Development, 2015)

Next, **Table A2** lists organizations that are Agricultural Product Marketing Agencies or Industry Associations that could be considered relevant to turkey and pork processing in Ontario and Canada and contains organizations both national and provincial.

**Table A2. National and Provincial Agricultural Product Marketing Agencies and Industry Associations relevant to Turkey and Pork in Canada and Ontario.**

<table>
<thead>
<tr>
<th>Organization and Website</th>
<th>Mission</th>
</tr>
</thead>
</table>
| Farm Products Council of Canada (FPCC)  
http://www.fpcc-cpac.gc.ca | “…to assist the Canadian supply managed agri-food industry by sharing information, providing direction and supporting an environment that promotes industry |

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20 The George Morris Centre closed at the end of 2014, reportedly due to funding and resource issues (Mann, 2015).
<table>
<thead>
<tr>
<th>Organization and Website</th>
<th>Mission</th>
</tr>
</thead>
<tbody>
<tr>
<td>National Association of Agri-Food Supervisory Agencies (NAASA) (no website)</td>
<td>“…to assist the Canadian supply managed agri-food industry by sharing information, providing direction and supporting an environment that promotes industry development and prosperity. It provides a forum for communication among its members in support of the progressive evolution of orderly marketing systems within a globally competitive environment.” (Farm Products Council of Canada, 2014)</td>
</tr>
<tr>
<td>Food and Beverage Ontario (formerly Association of Ontario Food Processors)</td>
<td>“established as the Alliance of Ontario Food Processors in 2003 by industry to provide a single and powerful voice on behalf of Ontario food and beverage manufacturers” (Food and Beverage Ontario, 2014)</td>
</tr>
<tr>
<td>Ontario Independent Meat Processors (OIMP)</td>
<td>To “strengthen Ontario's meat and poultry industry by working with stakeholders, responding to challenges and identifying opportunities on behalf of the membership” (Ontario Independent Meat Processors, 2015a)</td>
</tr>
<tr>
<td>Further Poultry Processors Association of Canada (FPPAC)</td>
<td>“a trade association where manufacturers of value-added poultry products have the opportunity to share visions and concerns. The association was founded by three independent further processors (without slaughter facilities) in August of 1985. The common cause that brought members together then was the concern about adequate supply of raw material and this today remains a key issue.” (Further Poultry Processors Association of Canada, 2014a)</td>
</tr>
<tr>
<td>Canadian Poultry and Egg Processors Council (CPEPC)</td>
<td>“To foster a climate of continuous improvement within the Canadian feather industry recognizing the need for increasing competitiveness.” (Canadian Poultry and Egg Processors Council, 2015)</td>
</tr>
<tr>
<td>Small Flock Poultry Farmers of Canada (SFPFC)</td>
<td>“dedicated to communicate, discuss, and advocate for the civil rights and important role that small flock poultry farmers can play (and should play) in Canadian Society.” (Small Flock Poultry Farmers of Canada, 2015)</td>
</tr>
<tr>
<td>Turkey Farmers of Canada (TFC)</td>
<td>“To develop and strengthen the Canadian turkey market through an effective supply management system that stimulates growth and profitability for economic stakeholders.” (Turkey Farmers of Canada, 2015c)</td>
</tr>
<tr>
<td>Organization and Website</td>
<td>Mission</td>
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</tr>
<tr>
<td>Canada Pork International (CPI) <a href="http://www.canadapork.com/en/">http://www.canadapork.com/en/</a></td>
<td>“…reunites Canadian pork exporters, provincial institutions and service organizations to promote Canadian pork in a variety of international markets…(to) develop new opportunities in existing and new markets for Canadian pork products aiming to serve clients, importers, end-users and consumers abroad.” (Canada Pork International, 2015a)</td>
</tr>
<tr>
<td>Canadian Meat Council <a href="http://www.cmc-cvc.com/">http://www.cmc-cvc.com/</a></td>
<td>“advocates for the needs of its members to secure and improve Canada’s global meat competitiveness” (Canadian Meat Council, 2015b)</td>
</tr>
<tr>
<td>Canadian Pork Council <a href="http://www.cpc-ccp.com/">http://www.cpc-ccp.com/</a></td>
<td>“To play a leadership role in achieving and maintaining a dynamic and prosperous Canadian pork sector.” (Canadian Pork Council, 2013)</td>
</tr>
<tr>
<td>Ontario Farm Products Marketing Commission <a href="http://www.omafra.gov.on.ca/english/farmproducts/">http://www.omafra.gov.on.ca/english/farmproducts/</a></td>
<td>To “administer the legislation and regulations of the Farm Products Marketing Act (FPMA) and the Milk Act (MA) and supervise the activities of Ontario’s marketing boards and Section 12 (of the FPMA) representative associations…” (Farm Products Marketing Commission, 2015)</td>
</tr>
<tr>
<td>Turkey Farmers of Ontario <a href="http://turkeyfarmers.on.ca/">http://turkeyfarmers.on.ca/</a></td>
<td>“…to ensure humane treatment and care of our turkeys while providing safe, high quality food to consumers for many years to come.” (Turkey Farmers of Ontario, 2015c)</td>
</tr>
<tr>
<td>Poultry Industry Council (PIC) <a href="http://www.poultryindustrycouncil.ca/">http://www.poultryindustrycouncil.ca/</a></td>
<td>“Delivers poultry extension services, event coordination, and project and program management while supporting research capacity for the betterment of the Ontario industry.” (Poultry Industry Council, 2015)</td>
</tr>
<tr>
<td>Meatingplace Magazine <a href="http://www.meatingplace.com/">http://www.meatingplace.com/</a></td>
<td>“Meatingplace is the premier multimedia information source for the red meat and poultry processing industry. Focused on the U.S. &amp; Canadian markets…” (Meatingplace.com, 2015)</td>
</tr>
<tr>
<td>Canadian Poultry Magazine <a href="http://www.agannex.com/about-us">http://www.agannex.com/about-us</a></td>
<td>“…provides the entire Canadian poultry industry and related trades with informative, timely and interesting facts, ideas and innovations to help them maximize its profitability, efficiency and safety.” (AgAnnex.com, 2015)</td>
</tr>
<tr>
<td>Google Group “Niche Meat Processor Assistance Network”</td>
<td>Google group that permits niche meat processors to share knowledge.</td>
</tr>
<tr>
<td>“Keep-Supply-Management” <a href="https://groups.google.com/forum/#!overvview">https://groups.google.com/forum/#!overvview</a></td>
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</tbody>
</table>
Appendix B - Forty Management and Organization Theories

Table B1 on the pages that follow in this Appendix was created using the work of J.A. Miles (2012) who reviewed forty established management and organization theories that have implications for practicing managers. Table B1 displays the name of each theory, an abbreviated description of the theory, the focus of the theory, and the assumptions of the theory.
<table>
<thead>
<tr>
<th>Theory</th>
<th>Description</th>
<th>Focus of Analysis</th>
<th>Assumptions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Absorptive Capacity</td>
<td>• New knowledge the source of increased innovativeness and firm success</td>
<td>• Firm</td>
<td>• Firms can absorb new knowledge</td>
</tr>
<tr>
<td>2. Actor Network</td>
<td>• All entities acquire characteristics through relations with other entities in their environment</td>
<td>• Individual</td>
<td>• Why and how more important than explanations of behaviour</td>
</tr>
<tr>
<td>3. Agency</td>
<td>• Looks at risk sharing and agency problems when authority is delegated with imperfect information</td>
<td>• Contract between agents and principals</td>
<td>• Useful in economics but considered less so for practical problems</td>
</tr>
<tr>
<td>4. Agenda Setting</td>
<td>• How does social change occur in society? • Framing of messaging, impacts of media and policy messaging</td>
<td>• Issues related to public opinion</td>
<td>• Moral issues complicate use of theory</td>
</tr>
<tr>
<td>5. Attachment</td>
<td>• Nature of bonds between people</td>
<td>• Relationships with individuals</td>
<td>• Does not consider covert or attitudinal behaviours</td>
</tr>
<tr>
<td>6. Attribution</td>
<td>• Perceived causes of past events will contribute to current and future motivations and attitudes</td>
<td>• Attritions of individuals</td>
<td>• Failures blamed on environment but success on oneself</td>
</tr>
<tr>
<td>7. Balance</td>
<td>• Perceptional changes over time</td>
<td>• Individual sentiments</td>
<td>• People want stress-free interactions</td>
</tr>
<tr>
<td>8. Control (Cybernetic)</td>
<td>• Self-regulating systems and feedback loops</td>
<td>• Individual cognitive and affective elements</td>
<td>• Action only taken when discrepancy exists</td>
</tr>
<tr>
<td>9. Diffusion of Innovations</td>
<td>• Examines processes used by innovators, adoption and diffusion rates of innovation over time</td>
<td>• Stages of innovation, especially technical</td>
<td>• All new methods are positive, all good innovations are adopted</td>
</tr>
<tr>
<td>10. Dynamic Capabilities</td>
<td>• How firms build, integrate, reconfigure competencies</td>
<td>• Firm capabilities</td>
<td>• Better dynamic capabilities will result in better firm success</td>
</tr>
<tr>
<td>Theory</td>
<td>Description</td>
<td>Focus of Analysis</td>
<td>Assumptions</td>
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<tr>
<td>11. Efficient Market</td>
<td>• Looks at market efficiency and how market prices change as a result of new information</td>
<td>• Asset prices</td>
<td>• Investors act rationally when they get new information</td>
</tr>
<tr>
<td>12. Ethical</td>
<td>• Examines conditions in which an action is moral</td>
<td>• Ethical dilemmas</td>
<td>• Challenge in practical application when there are competing ethical approaches</td>
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<tr>
<td></td>
<td>• Considers ethics of character and conduct; considers utility of actions in variety of situations</td>
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<td></td>
</tr>
<tr>
<td>13. Field</td>
<td>• The forces and conditions that act on an individual at a specific time are responsible for behaviour</td>
<td>• Life space of individuals</td>
<td>• All conditions that affect individual or organization must be known to predict behaviour</td>
</tr>
<tr>
<td>14. Game</td>
<td>• Examines individual decision strategies, outcomes, payoffs and equilibrium of games.</td>
<td>• Decisions of individuals</td>
<td>• Assumes abstract setting</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Assumes games of strategy but not chance</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Assumes competitive behaviour with complete information</td>
</tr>
<tr>
<td>15. Goal Setting</td>
<td>• Examines goal setting and task performance</td>
<td>• Individual</td>
<td>• Creative tasks may not involve specific goals</td>
</tr>
<tr>
<td></td>
<td>• Performance levels increase with more specific or difficult goals, by increasing commitment to goals, by setting one’s own goals, or by getting feedback</td>
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<tr>
<td>16. Image</td>
<td>• Uses schemata to represent cognitive frameworks that underlie decision processes</td>
<td>• Decision makers</td>
<td>• Possible to measure images</td>
</tr>
<tr>
<td>Theory</td>
<td>Description</td>
<td>Focus of Analysis</td>
<td>Assumptions</td>
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</table>
| 17. Institutional      | • Organizations tend to look at act the same over time and work to achieve organizational legitimacy  
• Organizations acquire meaning and stability from sources other than efficiency in reaching firm goals | • Organizational structures, practices and institutional isomorphic pressures      | • Environment is source of pressures on organizations                                                   |
| 18. Knowledge-Based    | • Organizations provide the most efficient way to store and use knowledge, competencies and capabilities  
• Tacit and explicit knowledge  
• Codification processes | • Individual                                                                  | • Organizations are heterogeneous and knowledge stocks explain diversity                                |
| 19. Media Richness     | • Individual performance in situation is function of fit between characteristics of medium and the task to be performed  
• Examines sharing of meaning and information | • Individual                                                                  | • Individual choice is more important than situational or social factors                                |
| 20. Mental Models      | • Mental models affect decision making                                         | • Individual                                                                  | • Better construction and use of accurate mental models will increase firm success                     |
| 21. Organizational Ecology | • Diversity of organizations due to social, political and economic systems  
• Looks at competition models and niche theory | • Organization                                                               | • Darwinian perspective of evolution can be applied to organizations                                   |
| 22. Organizational Justice | • Considers organizational and individual justice and fairness perceptions in employment relationships  
• Employee-Employer (dyad) | • Individual                                                                  | • Individual processes and outcomes are distinct concepts                                            |
<table>
<thead>
<tr>
<th>Theory</th>
<th>Description</th>
<th>Focus of Analysis</th>
<th>Assumptions</th>
</tr>
</thead>
<tbody>
<tr>
<td>23. Planned Behaviour</td>
<td>• Behaviour can be predicted and explained by examining behavioural intentions and by considering attitudes and subjective norms</td>
<td>Individual</td>
<td>• Intentions will result in actual behaviour when individuals have control</td>
</tr>
<tr>
<td>(Theory of Reasoned Action)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>24. Prospect</td>
<td>• Considers how decisions are made under uncertainty and risk</td>
<td>Individual</td>
<td>• Decision prospects can be defined as either positive gains or negative losses</td>
</tr>
<tr>
<td>25. Psychological Contract</td>
<td>• Employees form beliefs and expectation based on psychological contracts with organizations</td>
<td>Employee-Employer dyad</td>
<td>• Individuals have choice and can participate in or leave contracts freely</td>
</tr>
<tr>
<td>26. Resource Based</td>
<td>• Performance difference in firms are due to resource differences</td>
<td>Enterprise/Business</td>
<td>• Resources differ by organization and are not perfectly mobile</td>
</tr>
<tr>
<td></td>
<td>• Firms compete based on intangible and tangible resources</td>
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<td></td>
</tr>
<tr>
<td>27. Role</td>
<td>• People are conditioned to play roles in order to keep social order</td>
<td>Group</td>
<td>• Roles can be defined within a set of roles and individuals will not alter their roles</td>
</tr>
<tr>
<td>28. Self-Determination</td>
<td>• Considers extent by which behaviour is driven by self-motivation and determination</td>
<td>Individual</td>
<td>• People are growth-oriented and seek out health and well-being</td>
</tr>
<tr>
<td>29. Sensemaking</td>
<td>• People make sense of events, create meaning around events and this affects their future behaviour</td>
<td>Individual</td>
<td>• Managers can make better decisions by focusing on potential meanings of events</td>
</tr>
<tr>
<td>30. Social Capital</td>
<td>• People gain resources through social interactions and connections with others</td>
<td>Individual, Group</td>
<td>• Social capital can be considered a resource</td>
</tr>
<tr>
<td></td>
<td>• Examines relations and networks</td>
<td>Organization</td>
<td></td>
</tr>
<tr>
<td>Theory</td>
<td>Description</td>
<td>Focus of Analysis</td>
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</tr>
</tbody>
</table>
| 31. Social Cognitive       | • Three, interacting factors influence behaviour over time  
• People can learn by observing others and by enacting behaviours and continuing them if they get positive reinforcement | Individual        | • People produce and are products of their environment  
• People have agency |
| 32. Social Comparison      | • People assess their opinions and abilities by using information about others’ opinions and abilities | Individual        | • Only specific opinions and abilities are compared and may vary by individual |
| 33. Social Exchange        | • People enter into relationships and maintain them to acquire rewards  
• Exchanges that are most valued are those without a material price | Individual        | • Theory extends to mutually contingent and rewarding processes only  
• Return on investment for social exchanges are unspecified and voluntary |
| 34. Social Facilitation    | • Examines the influence of the presence of other people on task performance due to stimulation, concentration and type of work | Individual        | • People will alter behaviour if others are present |
| 35. Social Identity        | • Membership in a group has emotional and value significance | Individual        | • People want to improve self-esteem and have a positive self-concept and these can be affected by group membership  
• People evaluate group membership by comparing group attributes |
<table>
<thead>
<tr>
<th>Theory</th>
<th>Description</th>
<th>Focus of Analysis</th>
<th>Assumptions</th>
</tr>
</thead>
</table>
| 36. Social Network     | • People behave in similar fashion because they are connected by network linkages  
• Network tie strengths are dependent on time spent, emotional intensity, mutual confiding and reciprocal exchanges                                                                                                                                                                                                                                                                  | Individual        | • The central point in a network is most advantageous  
• People tend to stay connected through relationships over time in long lasting patterns                                                                                                                                                                                                                                             |
| 37. Stakeholder        | • Goals of the firm include broader interests other than shareholder wealth  
• Managers should look for solutions that maximize value for all stakeholder groups that can affect or be affected by the actions of the firm                                                                                                                                                                                                                                                                   | Firm              | • Managers have discretion to act in the interest of stakeholders                                                                                                                                                                                                                                                                 |
| 38. Structural Contingency | • Organizational structure that is most appropriate is determined by contingencies facing organizations  
• Organizations should work to achieve fit between their structure and their environment                                                                                                                                                                                                                                                                                             | Firm              | • Organization’s structure is determined only by its environment                                                                                                                                                                                                                                                                 |
| 39. Structuration      | • Individuals are members of social structures that support continued performance over time  
• Behaviour of individuals also shapes social structures                                                                                                                                                                                                                                                                                                                                                                      | Individual        | • Structures consist of rules and resources                                                                                                                                                                                                                                                                                                  |
| 40. Transaction Cost   | • Examines if firms should make something or buy instead  
• Looks at transactions and contracting issues between partners and the costs involved                                                                                                                                                                                                                                                                                                         | Firm              | • Assumes risk neutrality of trading firms; firms are equals in business experience; firms have special expertise.                                                                                                                                                                                                                   |
Appendix C – Analysis and Context of Ontario Meat Processing Industry

The purpose of this appendix is to describe the context in which Ontario meat processing firms operate and to use the same tools used by managers to understand key dynamics in the external environment of the firm.

Section C1. Introduction

The appendix is organized as follows: Section C2 situates the Ontario meat processing industry and establishes its importance. Section C3 describes strategic tools used to assess competitive environments\(^{21}\) at the macro-, industry- or firm-level and uses these in an assessment of the meat processing industry in Ontario and Canada. Section C4 discusses the relevance of the assessments to the research objectives in this study and summarizes the appendix.

This appendix was approached as a second literature review in which the meat processing industry in Ontario is described using several practical, strategic management tools using all available information. This review addresses the challenge of describing the external (general and industry) environment of the Ontario meat processing industry. This description is important for two reasons. First, the review helped the researcher gain insight into how the meat processing industry can be examined with widely available management tools developed using approaches in the management literature. The practical tools applied in this chapter are used by managers, consultants and policy makers to understand the external environment and challenges facing firms within an industry; use of these tools helped the researcher establish how firms may view threats and opportunities in the industry environment. Second, this review was also completed to

\(^{21}\) Since the external environment of the firm is also the environment in which competition occurs, the terms are used interchangeably.
provide the researcher with additional background about the industry while designing the research. A summary of this review at the end of appendix three identifies that each of the practitioner tools is externally-oriented and, therefore, does not adequately describe firm capabilities that may be important to firm success in certain regulatory environments.

As noted, the industry description in this chapter arises from practical analyses, that is, with tools and information that would be available to all firms and stakeholders in the meat processing industry. To support industry descriptions, data was drawn from a review of reports written by industry groups, government agencies and ministries, think tanks and public policy organizations, industry newsfeeds, government databases. Data collected from interviews and from firm websites was also used to create the assessments of competitive environments found in this chapter. Further to the use of information from the public domain, some terms in this section are italicized to indicate that they are being used colloquially as opposed to academically. For example, some terms used by industry appear to be similar or the same as those used in academia, but they are not used differently in practice. To avoid a lack of clarity, it was necessary to develop a system to indicate to readers that a term was being used colloquially.

Data for this appendix also draws broadly from notes written during extensive background preparation and before entering the meat processing industry to collect data. Chapter 3, Section 3.4.3 describes the detailed preparation conducted by the researcher over a one-year period before entering the field and the extent to which the input from a variety of industry contacts helped to give the researcher knowledge about the meat processing industry and issues therein. The writing of this extensive appendix formed a foundational part of the background preparation.
Section C2. Situating the Ontario Meat Processing Industry

The Ontario meat industry is bounded by the larger, Canadian industry that is itself bounded by both the larger North American and global meat industries. These markets are generally considered to be fairly open. Figure C1 situates the Canadian meat processing industry in Canada using the North American Industrial Classification System (or NAICS; Statistics Canada, 2013). The North American Industrial Classification System (NAICS) is used by government departments (for example, Statistics Canada, Industry Canada) to organize industrial economic data and to define industries and sectors. The manufacturing sector NAICS 31-33 in Canada consists of “establishments primarily engaged in the chemical, mechanical or physical transformation of materials or substances into new products” (Statistics Canada, 2012a). This sector is divided into subsectors, one of which is the food manufacturing sector (NAICS 311) comprised of “establishments primarily engaged in producing food for human or animal consumption” (Statistics Canada, 2012b); this category includes the food manufacturing subsector NAICS 3116; subsectors are next divided into industry groups. The meat product manufacturing industry group includes the animal slaughtering and processing industry group NAICS 31161 which is further divided into three Canadian industries: first, those firms that slaughter animals NAICS 311611; second, firms that render or process meat from carcasses NAICS 311614; and third, firms that slaughter and/or process poultry NAICS 311615. Firms that process pork as their primary activity are included in NAICS 311611 or 311614 depending on whether or not they conduct slaughtering or processing as their primary activity reported to government. Firms that process poultry (including turkey and chicken) as their primary activity
are coded as NAICS 311615.

**Figure C1. Situating the Canadian Meat Processing Industry Using the NAICS Classification System.**
This figure shows the structure of the manufacturing industry in Canada and the hierarchy of subsectors, industries and industry groups. The Canadian industries of Animal Slaughtering, Rendering and Meat Processing from Carcasses, and Poultry Processing are found at the lowest level of the hierarchy using the NAICS classification system.

In this appendix, references to the meat processing industry will discuss firms in the three Canadian industries NAICS 311611, 311614 and 311615. When additional detail is discussed about the pork processing industry, the discussion will apply to firms found in NAICS 311611 and 311614; when additional data is discussed about the turkey processing industry, the discussion will apply to firms found in NAICS 311615. Firm classification for the NAICS system is based on the primary activity of firms which is defined as the relative share of value added if the firm is involved in more than one activity (Statistics Canada, 2015). Meat processing firms that are classified in these NAICS codes, therefore, are firms whose primary activity is
processing meat; some may add value through retail sales of meat, however, if this is not their primary activity it will not impact their primary classification.

Ontario Industry, Size and Distribution

Meat processors can be provincially or federally inspected in Canada; those who are federally licensed usually do so because it allows export to other provinces or countries. Those processors who are federally licensed are represented by the Canadian Meat Council (CMC) that reports that there are over 1000 meat processing firms in Canada (Canadian Meat Council, 2015a). These processing firms include both packers (primary processing including slaughter) and further processors (secondary processing). In February 2015, the Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA) reported a total of 112 abattoirs who were conducting only further processing and 132 processors who conducted abattoir activities and possibly some further processing (OMAFRA, 2015). Table C1 shows the number of licensed meat processing plants according to OMAFRA for Ontario’s meat processing industry.

---

22 The OMAFRA statistics are challenging to work with; data is sorted by animal class and facility type. Meat processors who process more than one type of animal protein will appear in multiple databases making aggregation problematic.
Table C1. Number of Provincially Licensed Meat Processing Plants in Ontario, by Category.

<table>
<thead>
<tr>
<th>Plant Category (Species)</th>
<th>Number of Plants (by distinct address)</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Abattoirs</td>
<td>132</td>
</tr>
<tr>
<td>Abattoirs Conducting Further Processing</td>
<td>112</td>
</tr>
<tr>
<td>Red Meat: Beef</td>
<td>99</td>
</tr>
<tr>
<td>Red Meat: Pigs</td>
<td>82</td>
</tr>
<tr>
<td>White Meat: Chicken, Fowl</td>
<td>30</td>
</tr>
<tr>
<td>White Meat: Turkey</td>
<td>27</td>
</tr>
<tr>
<td>Total</td>
<td>1291 *</td>
</tr>
</tbody>
</table>

* Total number includes some duplication. Some firms have multiple plants and some firms process multiple proteins.

Source: OMAFRA, 2015

The meat processing plants in Table C1 are concentrated in the southern part of the province of Ontario; most plants are located near consumers and can be found near larger cities such as Hamilton, Toronto, and Ottawa.

The Ontario Independent Meat Processors (OIMP) is an industry association that was formed in 1980 to represent a range of processors, including abattoirs, plants and butcher shops (Ontario Independent Meat Processors, 2015a). The OIMP reports that food manufacturing has a value 39 billion dollars in Ontario and, of this, meat processing represents 23 percent of the value to the province and 25 percent of the workforce by number of employees (Ontario Independent Meat Processors, 2015b).
Turkey Industry

Production.

It is important to describe turkey production in Canada and Ontario in order to put turkey processing into context. Turkey production is relatively low when compared with other animal proteins. The Canadian Turkey Marketing Agency has the power under the Farm Products Agencies Act (FPAA) of 1974 to regulate the pricing and supply of turkey in Canada. Data from 2013 indicate there were 527 producers in Canada in 2013, the majority of which are located in the provinces of Ontario and Quebec (Turkey Farmers of Canada, 2015e, p. 4); there are 176 growers in Ontario—the highest number found in any province. Since 1983, the number of registered turkey growers has decreased from 602 to 527 across Canada in 2013 with. In 1974, just over 100 million kg of eviscerated turkey was produced in Canada and this has grown to just under 170 million kg in 2013 (Turkey Farmers of Canada, 2015d, p.15).

The export of turkey protein relative to total production has grown since 1974 when 271,000 kg of turkey were exported; this has since increased to over 24 million kg in 2013 (Turkey Farmers of Canada, 2015e, p. 16). Imports of turkey have also grown; 1,993 thousand kg were imported in 1974 and 4,355 were imported in 2013. Statistics also show that, after adjusting stocks for both imports and exports, the per capita supply of turkey produced has not changed significantly from 1974; the 2013 figures indicate 4.21 kg of turkey per capita are supplied (Turkey Farmers of Canada, 2015e, p. 22). These data seem to indicate that consumer consumption of turkey per capita has remained consistent during growth in national population. Data show that retail purchases of turkey parts have been growing since 1983 even though whole turkeys (both fresh and frozen) retail sales have not changed significantly in that time (Turkey Farmers of Canada, 2015e, p. 24).
Within the supply management of poultry in Canada, there are a number of differences between the two systems. *Table C2* displays some selected differences between the marketing of turkey and chicken in Canada and Ontario; these differences were selected because they were most likely to impact processing or the relationship between producers and processors.

*Table C2. Differences Between Marketing of Turkey and Marketing of Chicken in Canada.*

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Turkey</th>
<th>Chicken</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supply (Quota Allocation)</td>
<td>Supply (quota allocation) is set for whole bird demand and for further processed demand (where further processed does not cover whole bird end uses).</td>
<td>Supply (quota allocation) is set for overall chicken demand.</td>
</tr>
<tr>
<td>Quota Period</td>
<td>Annual quota allocation – supply set annually. Production occurs throughout the year with Tom, Broiler and Hen weights produced over differing number of weeks throughout the year.</td>
<td>Quota is allocated every 8 weeks. Less variation than for turkey in the number of weeks required to grow differing weights of birds.</td>
</tr>
<tr>
<td>Seasonality</td>
<td>Seventy-two percent of whole bird production is consumed at Christmas and Thanksgiving (Turkey Farmers of Canada, 2014). Much of whole bird production is inventoried as frozen product to meet two holiday markets.</td>
<td>Demand is spread more widely throughout the year. The proportion of chicken that is sold as fresh relative to frozen is far greater (exact statistics not available since chicken production not divided into fresh and frozen categories).</td>
</tr>
<tr>
<td>Procurement Process</td>
<td>In Ontario, government-enacted regulations permit Turkey Farmers of Ontario to set minimum, live prices for turkeys. The processors and the board have agreed to a method by which the board does the price setting. In Ontario, processors are not assured a certain share of the of turkey supply. Processors must contract with individual quota holding producers for supply when securing their desired level of production.</td>
<td>In Ontario, Chicken Farmers of Ontario assures processors of an established share of chicken supply based on a historic share. However, processors lose share if they do not contract their share within a tolerance level. While each processor contracts with individual quota holding producers, the board will redirect production where necessary to assure a processor a given share of supply.</td>
</tr>
<tr>
<td>Attribute</td>
<td>Turkey</td>
<td>Chicken</td>
</tr>
<tr>
<td>-----------</td>
<td>------------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Exports</td>
<td>If a processor has an export market opportunity, conditional quota will be allocated on a request basis. Processors in Ontario who are granted conditional export quota can choose which producer(s) to contract with to produce for this export market.</td>
<td>If a processor has an export market opportunity, quota will be allocated on a request basis to the provincial board and supply will be granted to the processor. Chicken Farmers of Ontario ensures all producers have an opportunity to produce a portion of the quota granted for exports.</td>
</tr>
</tbody>
</table>

Source: Dinnissen, 2015.

**Processing.**

As with production, the number of processors of turkey is relatively small. The Turkey Farmers of Canada website indicates there are 19 federally inspected turkey processing plants in Canada (Turkey Farmers of Canada, 2015e). It is the case, however, that there are a number of smaller processors in the country that process turkey in addition to other animal proteins, but would not consider primary or further turkey processing as their primary activity. Turkey processors in Canada are represented by the Canadian Poultry and Egg Processors Council (CPEPC; Canadian Poultry and Egg Processors Council, 2015). The website for CPEPC lists 14 primary processors in of turkey in Canada as members of which four are in Ontario. One further processor of turkey sits currently sits on the board of the Turkey Farmers of Ontario (Turkey Farmers of Ontario, 2015b).

Pork Industry

**Production.**

The Canadian Pork Council (CPC) is a key source of information for the hog industry in Canada; Canada Pork International (CPI) reports on hog industry related to a variety of international markets that are important to many processors in the industry. The hog industry in
Canada is traditionally volatile and some describe it as “more volatile than in most other countries” (Canada Pork International, 2015b, para. 1). The CPI describes the volatility in terms of prices and supply in the market and attributes an approximately four-year cycle to both seasonality (for example, climatic conditions) and cyclical variability (for example, higher number of hogs on market in first quarter annually and lowest in third quarter, para. 2). The CPI also indicates that about 50 percent of Canadian pork is further processed which means the primal cuts (for example, butt, belly, loin) are then further processed into both cured and cooked products (para. 4). Hog cycles exist elsewhere in the world; scholarly literature has confirmed that the hog cycle in the U.S. is statistically significant and that an increased challenge to dealing with these types of cycles may be complicated by recent changes in cycle length (Shonkwiler & Spreen, 1986).

The CPC reports that the industry neared collapse in 2009 and developed a strategic plan for renewal that involved a “significant downsizing” (Canadian Pork Council, 2015) in both the number of hogs and in the number of industry producers. The CPC attributes a 2008 notice about Mandatory Country of Origin Labelling (MCOOL) for Canadian pork imports as the most recent shock that forced downsizing of the hog industry, despite a fight over the ruling at the World Trade Organization (WTO). Shortly after this ruling, an oversupply of hogs due to American labelling rules meant that prices plummeted in Canada and resulted, according to one report, in losses of just under $2 billion (Gietz, 2013, p. 3). This ruling, however, was reversed after Canada appealed to the World Trade Organization and won; currently, a “WTO arbitrator (is) now…determining the level of retaliation” (The PigSite News Desk, 2015, para. 3) to provide the Canadian hog industry with some compensation for losses suffered since 2008.
In 1946, pork producers in Ontario had chosen to be the only marketer of hogs in Ontario under the Farm Products Control Act, now called the Farm Products Marketing Act (Ontario Pork, 2015a); this changed in 2010 when new legislation permitted producers to market their hogs either directly to a buyer/intermediary or through the marketing division of Ontario Pork (Ontario Pork, 2015a); the Universal Services Division handles hog marketing and research to benefit the entire provincial industry.

The pork industry in Ontario is subject to volatility in pricing; efforts have been under way to look at ways to minimize risk and improve profitability for producers (Chilmeran & Verhoeven, 2013). Ontario Pork’s website reports that there are just over 1500 hog farmers in Ontario with the majority being family-owned and operated and 40 percent of producers marketing 500 to 3000 hogs per year (Ontario Pork, 2015c). Hog production in Canada has grown since the late 1990s.

**Processing.**

Processing in the pork industry often occurs close to where hogs are raised and the number of establishments processing pork has been decreasing in Canada in recent decades. Figure C2 illustrates the inventory of pigs on Canadian farms including inventories in the six provinces with the largest inventories in 2010; the figure illustrates that Quebec, Manitoba and Saskatchewan have been growing inventories while Ontario, Alberta and British Columbia have been decreasing. Because primary processing activities are best accomplished in close proximity to where animals are raised, this graph also suggests that there have been changes to the regions where processors are located.
Figure C2. Graph showing inventory of pigs on farms by provinces/regions in Canada, 1986 – 2010.

The graph in this figure shows that hog production has decreased in Ontario and Alberta in the time period shown. In the same time period, Quebec, Manitoba and Saskatchewan have increased their hog production. These changes have implications for processing firms because they are best located near hog production to minimize transport distances for animals (Canada Pork International, 2015b).

Recently (and concurrent with data collection for this research), the closing of a major processor in Ontario (Better Farming Staff, 2014) in 2014 took place in a continuing climate of pricing uncertainty; it has been reported that this plant is being repurposed from pork to turkey processing (Better Farming Staff, 2015). Pricing volatility is often related to supply concerns and recently, these concerns have been related to the Porcine Epidemic Diarrhea Virus (Statistics Canada, 2014b) that is persistent even in colder climates. In the past, concerns about hog prices have also been related to the oversupply of hogs (McEwan & Duffy, 2006, p. iii). Pricing and supply concerns are both cyclical and typical in the hog industry and result in highly variable pricing for processors of pork that may constrain the ability of firms to quote prices more than a
few months in advance and may force smaller firms to focus their efforts on the other value they could add when input prices are high.

Section C3. Assessment of Competitive Environments

Figure 1.2 in Chapter One illustrated concepts related to firm-level competition—they use assets and activities to bring products, services and technology to market. The competitiveness of the firm results, in part, from the product service offering and competitive premise of the firm but is also influenced by the external environment. In order to understand how firms achieve goals, therefore, one factor that strategic managers examine is the firm’s external or competitive environment.

There are a number of ways to examine external environments (some of these were discussed in Chapter Two), however, the goal in this section is to understand the meat processing industry by applying several widely adopted, practical tools used by managers and other stakeholders to assess environments in which firms function. Strategic tools applied in this chapter include: an assessment of the broad external environment using PESTLE; an assessment of the competitive forces of an industry environment using the Five Forces Model (Porter, 1979); and, an assessment of external stakeholders (Freeman, 1984).

The strategic tools that are used for assessment are explained next and then used in analyses for the Ontario meat processing industry.

Strategic Tools for Managers

In order to examine the industry, three external analysis models were used; data in the industry assessment came from perceptions from interviewees in the research and executives of key industry groups, from both published and publicly available data, and from dynamics that are
widely recognized. Table C3 outlines the names of strategic assessment tools that will be used to assess the external environment of the Ontario meat processing industry. The table contains a brief description of three tools, and notes about each tool. In some sections (when and where relevant), additional detail is provided specifically for turkey and pork processing environments. Since this is not part of the academic contribution of the dissertation, the tools in Table C3 are provided as a backdrop for the assessment of the Ontario meat processing industry.
Table C3. Strategic Assessment Tools Used by Managers to Understand Firm Environments.

<table>
<thead>
<tr>
<th>Analysis and Level</th>
<th>Assessment Tool Description</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environmental Scanning (Macro Level)</td>
<td>PESTLE Analysis (Aguilar, 1967) Includes factors outside the control of industry that can affect industry Includes the following factors: • Political • Economic • Socio-Cultural • Technological • Legal • Environmental-Physical</td>
<td>• Factors change over time • List of factors acts as checklist to ensure thorough analysis • Factors affect competitive forces in an industry (see below)</td>
</tr>
<tr>
<td>Competitive Forces (Industry-level)</td>
<td>Competitive Forces (or Five Forces) Model (Porter, 1980) Includes the following five forces*: • Bargaining power of customers • Bargaining power of suppliers • Threat of substitute products/services • Threat of new entrants to the market • Rivalry among existing firms in the industry</td>
<td>• Forces change over time • Industries and organizations may seek to influence factors through strategic responses</td>
</tr>
<tr>
<td>Stakes and Stakeholders (Firm-level)</td>
<td>Stakeholder Analysis (Freeman, 1984) Includes considering firm strategy vis-à-vis: • Stakeholders and their stakes • Dominant organizational values • Societal issues expected to be salient in long term</td>
<td>• Based on current perceptions of managers</td>
</tr>
</tbody>
</table>

*NOTE: The power of *complementors* was not one of Porter’s original five forces but has been identified by all economists to be an influence on demand (Hill, Jones, & Schilling, 2015, p. 58). This force has subsequently been addressed by some strategic management researchers.

Academic support for the use of strategic tools has been discussed by Mintzberg (1998) who suggests there is a “pervasive strategic failure in many large corporations may well be attributed to the army of business school graduates who have been sent out with an incomplete
tool kit” (p. 20). The pervasive failure to which Mintzberg refers may occur because tools are based on certain assumptions about contexts or environments; tools may not be effective, for example, when the competitive environment is turbulent or unpredictable (Mintzberg, 1994). It is important, therefore, to conduct assessments using the same tools considered relevant by managers and business consultants so that potential gaps in assessment of firm environments can be accurately described and discussed.

Analysis of General External Environment

Section C3.1 identified the PESTLE tool as a way for strategic managers to assess the general external environment of the firm. The PESTLE tool will be applied next to assess the general external environment of the meat processing industry.

**PESTLE tool.**

The PESTLE tool has been used for decades by managers to assess the general external environment in which the firm operates and to consider possible impacts on the firm and its strategy using six factors. PESTLE is an acronym where each letter helps manager recall six factors that can affect firms and industries. van Duren (2014, p. 499) describes each factor as follows:

1. Political factors include a variety of potential influences including conflicts and wars, protests, etc. Political factors include how governments influence firms.
2. Economic factors include macroeconomic trends and events and may include microeconomic factors if they affect industries.
3. Socio-cultural factors include many demographic, attitudinal and lifestyle factors; buying trends, ethnic, religious, and ethical factors can also be included in this group of factors.

4. Technical factors relate to systems of knowledge that are used at any step of a manufacturing operation; these factors may be thought of as including process or product innovations developed to solve problems for firms, their suppliers or their customers.

5. Legal factors include laws, policies, government-enacted regulations and any activity conducted by governments or other legal authority.

6. Environmental-physical factors include both natural and built environments and are concerned with natural resources, infrastructure and the physical environment in which the firm conducts activities.

Managers using PESTLE are prompted to answer the following:

1. What is known or unknown about each factor?
2. How could factors change over time to offer opportunities or threats?
3. How might factors interact? What implications might these interactions have for the industry and the firm?

The six PESTLE factors are assessed next for Ontario’s meat processing industry.

*Political factors.*

The political environment of the meat processing industry is highly charged and can change rapidly. Political events elsewhere in the world can affect meat processing industries overseas which can have a ripple effect on domestic processors. For example, political events in the Ukraine in 2014 exacerbated Russian trade actions in the Ukraine (Vorotnikov, 2014a). The
Russian beef industry was planning to expand tenfold in the short term to allow self-sufficiency in beef production (Vorotnikov, 2014b). These two political occurrences immediately halted Canada’s beef exports to Russia. In addition, because of the Canadian government’s position on the Russia-Ukraine situation, Russia banned all Canadian pork in August 2014; some have reported that high prices for some products could help to mitigate losses (CBC News, 2014b) and the Canadian Meat Council indicated that the Canadian industry hoped to redirect pork already in transit to Russia because Canada has a number of other export markets available (CBC News, 2014b).

Influence from political factors is hard to predict much of the time and many political factors are unknown so firms may try to plan with contingency plans; the unpredictable nature of these factors, however, can make short term planning very challenging and short term changes to plans can also affect long term goals of a firm.

In addition to political issues of countries and governments, processors face political issues related to consumers which may arise suddenly; these can affect processors individually or may affect the entire industry value chain. Both pork processors and poultry processors alike have faced protests by consumers concerned about animal welfare (Davidson, 2015; Guelph Pig Save, 2015); issues related to antibiotic use in animal farming are also of great concern to meat processors (Crowe, 2014; Keefe, 2014; Scott, 2014, 2015). Although these types of issues flare up periodically, most industry associations and meat processors have learned to address these issues on websites and in press releases so that concerned consumers will have information from the processing perspective.
Economic factors.

In Canada, the economy has been recently characterized by slow growth. A wide variety of factors have likely had an impact, for example, the financial crisis in 2008 or the recent decrease in oil prices worldwide. Some observers have noted signs that traditional economic stimuli are not working to correct fluctuations as they have in the past (Curry, 2014). It has also been reported that businesses in Canada have been slow to invest in capital projects because of the general sense of uncertainty about the economic climate (Beltrame, 2013); some reports have indicated that meat processors have failed to invest in their firms.

Tax rates and structures also impact the industry. In the 2015 federal budget, the Government of Canada tabled the budget and indicated that small business will continue to see a decrease in their current tax rate of 11 percent to 9 percent by 2019 and increase in the lifetime capital gains exemption (Government of Canada, 2015b); unless changed, both of these changes will impact small processors who make up a large percentage of firms in the industry. After the 2015 budget was presented, the Canadian Federation of Agriculture reported that the government “showed a commitment towards bolstering Canada's manufacturing industry” (Canadian Federation of Agriculture, 2015) and highlighted expected changes to accelerated capital cost allowance that the association expects will increase productivity and encourage long term investments in the processing industry.

Climate change and the resulting weather patterns can impact the economics of meat processing because of the crucial link to producers who depend on certain, basic environmental conditions for animal production. In recent years, processors in the United States have been moving their operations from the southern plains northward in order to be closer to the live animal supply that is being forced northward due to drought conditions. (See Johnston (2014) for
a map illustrating the movement of American meat processors between 1994 and 2014). In the longer term, climate change may favour processors in Canada, however, regional differences and the lack of predictability in future weather patterns make it hard to predict outcomes for Canadian processors.

From the consumer perspective, the cost of living and prices for essentials, like food and meat, have increased since 2000. Appendix D contains a variety of statistics including: the Consumer Price Index (CPI), the Raw Materials Price Index (RMPI); and retail prices for various items from 2000 to 2014. Only CPI data is available by province and is displayed for the province of Ontario. The following observations can be made from these figures:

1. The prices of all item categories in the basket of consumer goods tracked by Statistics Canada have increased since 2000.
2. The prices of raw materials, including animals and animal products, have increased since 2000 except for the category of metal ores.
3. Breaking out the price of raw materials for various types of live animals in the animals and animal products category shows that the price index for cattle and calves and hogs has been higher than the category average since 2000; the price index for turkeys has been lower than the category average for the same period of time.
4. Retail prices data for food and selected protein alternatives show that the price of beef (including steaks, roast, and several other cuts) has been higher than the price of various protein alternatives such as canned salmon, eggs and peanut butter; these three protein alternatives have also been less expensive than chicken and bacon in the same time period.
Table C4 displays the most recent data available for food prices in both Canada and Ontario for meat categories that are tracked. Increases in meat prices may be due to the combined impact of a variety of other PESTLE factors including, but not limited to: higher raw material costs, lower supply of raw materials, commodity cycles that can affect feed prices for producers, climatic events (for example, extreme drought, heat or rainfall), the spread of disease affecting herds (for example, Porcine Epidemic Diarrhea Virus or PEDv), as well as seasonal issues (for example, summer barbecuing season (Statistics Canada, 2014b).


<table>
<thead>
<tr>
<th>Category</th>
<th>Canada</th>
<th>Ontario</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Meat</td>
<td>11.8</td>
<td>11.7</td>
</tr>
<tr>
<td>Fresh or Frozen Meat (excluding poultry)</td>
<td>15.4</td>
<td>11.5</td>
</tr>
<tr>
<td>Fresh or Frozen Poultry Meat</td>
<td>3.5</td>
<td>3.2</td>
</tr>
<tr>
<td>Processed Meat</td>
<td>12.9</td>
<td>17.9</td>
</tr>
</tbody>
</table>

Source: Statistics Canada, 2015b.

As the price of meat has been rising, Food Banks Canada reports that over 800,000 citizens in Canada make use of food banks (a 24.5 percent increase since 2008) and in Ontario almost 375,000 citizens use food banks (a 19.2 percent increase since 2008); (Food Banks Canada, 2015).

Price elasticity of a product is the change in quantity due to a change in price. Although there are a variety of opinions about meat price elasticity in Canada (Eales, 1996), some research in the U.S. has identified that meat prices are among the four most elastic food categories (Andreyeva, Long, & Brownell, 2010). Recent reports indicate that consumers are willing to pay more for some beef and pork items but not for chicken (Gabbett, 2015).
Other economic factors that can influence the industry are interest rates (currently low), and exchange rates (currently the weak dollar favours those who export but can affect others in the value chain due to feed costs). There are also rapid and unexpected economic changes at the global, national or interprovincial levels that may impact the meat processing industry. Examples of changes include, but are not limited to: animal diseases that can swiftly close borders and affect trade; or, demographic changes like the decrease in size of the middle class in North America resulting in decreased demand for high-end processed products.

In terms of market structure, some sectors in Canada (and Ontario) are supply managed and have control supply of production and price setting via cost of production formulae. In sectors that where production and pricing are regulated—like dairy, poultry and eggs—some argue that the value of quota may be causing price increases affecting consumers. In addition, the limited supply of available new quota means that growth may be limited for specific markets and/or specific regions (for example, in Northern Ontario) where there is not a legally available source of local poultry (Food Security Research Network, 2014, p.1).

*Socio-cultural.*

Various socio-cultural trends at the local, provincial, national and international level can affect the meat processing industry. Socio-cultural factors that affect the industry include (but are not limited to) the following:

1. Demographic Shifts

Demographic shifts are related to changes in the population. One example of this is the increasing size of segments of the population who have religious preferences for different types of animal protein, for specific types of slaughter, or for particular
methods of meat processing, for example, halal and kosher processing (Maddock, 2014). This shift has impact on the demand for these products locally, provincially, and nationally; this trend has resulted in increased demand for purchase of domestic meat processors in Ontario by foreign processors (Nicol, 2015).

2. Ethno-cultural Shifts

Ethno-cultural shifts include those trends that affect values and practices in society (Van Duren, 2014) and ultimately affect the meat processing industry. One example of this type of ethno-cultural trend is changes in consumer eating patterns (for example, consumer concerns about broad application of antibiotics via animal feed as a factor driving antibiotic resistance in humans (Crowe, 2014). Another is the use of ingredients in new food categories, for example, meat becoming part of foods not traditionally associated with meat (for example, ice cream). Consumers also have increased safety concerns about processing methods, for example, about the processes to create lean finely textured beef (LFTB) or the use of chlorine or irradiation to increase food safety. Some consumers have concerns about the need for meat in human diets; some may have ethical beliefs that preclude them from eating animals (for example, carnism) and this will affect consumer demand for meat products. There are also geographic cultural differences with respect to meat processing practices, for example, the use of chlorine rinsing that is used in the U.S. but not permitted in the EU (Bryne, 2014); this type of shift can also affect trade negotiations. There is also a growing interest in local food that has led to a demand for locally produced and processed animal proteins.
Ethno-cultural shifts take place over time and are durable. Single events may have an impact on these shifts, but are increasingly likely to do so when they are repeated and influence consumer preferences through reinforcement. For example, repeated (but difficult to predict) outbreaks of various animal diseases that create media headlines may have this impact. Specific examples of this type of event that—if repeated—can have a lasting impact include the XL foods beef recall due to E. coli-157:H7 in Alberta in 2012 (CBC News, 2012) or the 2015 outbreak of H5N2 avian influenza on some Ontario turkey farms (Branswell, 2015). Repeated events of this type could affect some markets for the meat processing industry by moving consumer to other protein sources in the short or the long term. These types of events have also put pressure on the meat processing industry for increased transparency and truthfulness. The trend of transparency was recently noted in Meatingplace magazine where the President of Cardinal Meats in Brampton, Ontario observed “the biggest trend is transparency” (Johnston, 2015, p. 56) and continues to say that firms who do more than the minimum standards require in food safety will be the successful firms (p. 62).

One final social concern relates to animal welfare issues across species that, for a variety of reasons, can affect the industry more quickly than ever before. Both pork (Anonymous, 2011) and turkey (Anonymous, 2014) processors in Ontario have been the targets of animal welfare protests and processing firms have been working to increase transparency with consumers about processing methods. Many now prominently feature website links to communicate the firm’s interest in maintaining animal health and in using humane methods of slaughter, for example, Maple Lodge
Farms (2015). One coordinated response at the industry-level in the United States was the hiring of Dr. Temple Grandin, a well-known animal welfare expert, to help the industry develop transparency through standards for animal transport, handling and slaughter for the North American Meat Institute (North American Meat Institute, 2013). Efforts to increase transparency have also been visible in the Canadian industry; many processors now use social media or company websites to address issues related to transparency.

Another shift is cultural—but is related to the culture in the meat processing industry. In a recent interview with a Canadian meat processor, the following was observed: “If (North American Meat Institute) is going to be successful, it’s going to have to stick to the fact that regardless of size each member has equal say…there’s a huge educational part that trade association can do that allows small medium and big companies to learn” (Johnston, 2015, p. 64). This may be the beginning of a cultural change in how the knowledge and experiences of smaller processors may be increasingly important to industry learning.

*Technological factors.*

Processors can keep in touch with new technology through meat shows and expos that are held, for example, at the annual IFFA trade fair in Frankfurt, Germany (Messe Frankfurt, 2015) and at the International Production and Processing Expo in Atlanta, Georgia (International Production and Processing Expo, 2015). They can also keep abreast of recent innovations by subscribing to newsfeeds and trade magazines or seminars. New processing equipment and processes and food safety related innovations are the focus for most shows, including the annual global expo in Chicago, IL (Food Processing Suppliers Association, 2015), however, most shows also include seminars about innovative business and retail management. New developments in
packaging technologies that extend shelf life or improve food safety (Whitworth, 2015) or technologies that use waste to make packaging (Phillipson, 2015) are only two important examples of how the industry is being challenged to continuously improve and invest in new technology. Many technologies, however, are developed outside of Canada inflating industry costs for some technologies. This represents an opportunity for suppliers to the industry in Canada.

Software innovation to support traceability programs are also being developed by some smaller processors in Ontario. Despite the recent removal of country-of-origin labelling (COOL) requirements by the United States, some processors in this study feel that it is to Canadian processors’ benefit to label meat as Canadian because of the brand value with customers and because global trade in meat could still mean increasing requirements for sophisticated tracking labelling systems.

**Legal factors.**

Due in part to the potential risk of unsafe food to consumers, the potential risks to the environment, and the potential risk to animals (in animal farming), there is legislation that can affect every functional area of a meat processing firm. In addition to common policies that would be required of any business in Canada, therefore, the processing industry must deal with legislation that covers both the safety of the product (food safety) that is produced, the manner in which processing occurs, and (for some) the system from which inputs are procured. There are some signs in Canada that regulators are beginning to collaborate more with industry in an effort to increase transparency in food safety regulations (Johnston, 2015, p. 64). One food processing executive has observed that when reducing food safety risks, “we can’t just look at our own plant” (Johnston, 2015, p. 64) but must be aggressive with buyers and suppliers.
In 2012 Kathleen Gibson, a policy analyst with the British Columbia Food Systems Network, described four, key areas of government-enacted regulation in Canadian meat processing and federal, provincial and municipal levels for a government committee. Her summary organized the legal framework for meat processors into two categories of government-enacted regulation affecting the entire value chain (food safety and public health) and two categories of government-enacted regulation affecting the producer and abattoir (animal health and animal welfare; Gibson, 2012); this description did not include the additional legislation that applies to producers of supply managed products. Gibson (2012) summarizes the impact on provincial meat processors that resulted from the regulatory structure as follows: approaches of smaller processors are more “holistic and more diversified” (p. 2) than larger processors; programs and policies are designed for large companies (p. 3); regulators who have intervention powers but not accountability (p. 4, note vii) and introduce standards that may not be workable (p. 3); and, poor fit between policies and the nature of smaller processing firms (p. 3).

**Turkey.**

Turkey is covered by the Canadian Farm Products Agencies Act of 1974 (hereafter referred to as the “Act”) which states, in part, that its objectives are: (a) to promote a strong, efficient and competitive production and marketing industry for the regulated product or products in relation to which it may exercise its powers; and (b) to have due regard to the interests of producers and consumers of the regulated product or products (Government of Canada, 2014).

The Canadian Turkey Marketing Agency Proclamation (Government of Canada, modified:2014-10-10) gave power to create the Canadian Turkey Marketing Agency in Canada; this organization was renamed in March 2009 as the Turkey Farmers of Canada (TFO; Turkey
Farmers of Canada, 2015b). The organization describes its objective as follows: “to encourage cooperation throughout the Canadian turkey industry and to promote the consumption of turkey in Canada, while acting as the voice for Canadian turkey farmers both domestically and internationally” (Turkey Farmers of Canada, 2015a). To reach this goal, the organization controls both the supply of turkey produced in Canada and the price of turkey produced. It is worth noting that the term marketing as used in the legislation extends to a broad variety of activities including “selling and offering for sale and buying, pricing, assembling, packing, processing, transporting, storing and any other act necessary to prepare the product in a form or to make it available at a place and time for purchase for consumption or use” (Government of Canada, 2015a). It is clear that this legislation affects many activities of the processor of turkey protein.

The amount of turkey produced in Canada is allocated first, by province and second, among producers in each province where a provincial body (for example, the Turkey Farmers of Ontario) may administer the work of the federal body. Most turkey in Ontario is processed by primary processors. Table C5 shows selected statistics for select years in Ontario from 1974 to 2013 and illustrates the nature of turkey production since 1974 when supply management legislation was enacted. Several observations can be made about the Ontario turkey market from Table C5:

- The number of registered turkey growers has increased by 6 percent in Ontario compared with a decrease nationally by 12 percent.
- Ontario hosts almost one third of the total federally inspected slaughter plants in Canada.
Although the supply of turkey produced has not increased per capita, the number of kilograms produced has increased as exports have increased.

**Table C.5. Select Statistics for Turkey Production in Canada and Ontario, 1974 to 2013.**

<table>
<thead>
<tr>
<th>Statistic</th>
<th>Jurisdiction</th>
<th>1974</th>
<th>1983</th>
<th>2013</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population (1000’s, number persons)</td>
<td>Canada</td>
<td>22,808</td>
<td>34,880</td>
<td>↑53%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Ontario</td>
<td>8,204</td>
<td>13,538</td>
<td>↑65%</td>
<td></td>
</tr>
<tr>
<td>Registered Turkey Growers (number of firms)</td>
<td>Canada</td>
<td>602</td>
<td>527</td>
<td>↓12%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Ontario</td>
<td>166</td>
<td>176</td>
<td>↑6%</td>
<td></td>
</tr>
<tr>
<td>Federally Inspected Turkey Slaughter Plants (number of firms)</td>
<td>Canada</td>
<td>20</td>
<td>--</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Ontario</td>
<td>6</td>
<td>--</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Turkey Production (1000 kg, eviscerated, all turkey categories)</td>
<td>Canada</td>
<td>102,524</td>
<td>168,148</td>
<td>↑64%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Ontario</td>
<td>41,808</td>
<td>72,011</td>
<td>↑72%</td>
<td></td>
</tr>
<tr>
<td>Canadian Turkey Exports (1000 kg, eviscerated)</td>
<td>Canada</td>
<td>271</td>
<td>24,049</td>
<td>↑8774%</td>
<td></td>
</tr>
<tr>
<td>Canadian Turkey Imports (1000 kg, eviscerated, all types)</td>
<td>Canada</td>
<td>1993</td>
<td>4355</td>
<td>↑119%</td>
<td></td>
</tr>
<tr>
<td>Turkey Supply per Capita (1,000,000 kg)</td>
<td>Canada</td>
<td>4.32</td>
<td>4.21</td>
<td>↓3%</td>
<td></td>
</tr>
<tr>
<td>Retail Purchases of Turkey (1000 kg)</td>
<td>Canada</td>
<td>55,789</td>
<td>69,530</td>
<td>↑25%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Ontario</td>
<td>23,725</td>
<td>30,466</td>
<td>↑28%</td>
<td></td>
</tr>
</tbody>
</table>

Source: (Turkey Farmers of Canada, 2014)

Firms processing turkey must adhere to government-enacted regulations administered by the TFC that determines the volume of meat that will be produced for consumption domestically and allocates this quota among the provinces (Lang, 2014). In Ontario, the TFO then regulates production of turkey and acts as the marketing body to promote consumer purchase and use of turkey. Legislation is further refined as the turkey category is divided into sizes of turkey (for example, toms, broilers and hens) that will be produced and communicates this information to quota holders. The TFO is also empowered by legislation to set the price for each category of turkey; input is permitted from processing companies and there is a mechanism for appealing decisions made by the TFO.
With respect to firm transactions, the TFO (or provincial counterpart) does not handle the transactions between producers and processors; the price of turkey in the exchange, however, must be equal or higher to the minimum price set by the TFO. In cases where turkey that is processed is subsequently exported, a commodity board grants *regrow credits* to processors to ensure that the volume supplied to the domestic market meets the quota originally allocated to consumers in the domestic market.

Supply management legislation affects, therefore, both pricing and supply of turkey in Ontario and is the system from which processors using purchase their inputs. The policies have been blamed for a lack of differentiation at the production level of the value chain because similar methods are used by the majority of producers in the supply managed system (Metcalf Foundation, 2010, p. 13). Thus, supply management policies affect both quantity and the price of the inputs required by meat processors who process turkey or chicken. Based on this, it is reasonable to argue that the impact of the system would likely be greater for processors who process only this type of animal protein or those who use large quantities of turkey protein in their operations; conversely, this impact would be lesser on processors who use the input as part of their ingredient list or in small enough quantities that the cost and/or the quantity are less important to the value proposition of the firm.

**Pork.**

There is no single entity to market pork in the province of Ontario. Until 2010, the Farm Products Marketing Act had brought all producers together a single marketing board to market their hogs (Ontario Pork, 2015a). In December, 2010, however, the legislative environment changed and producers were free to sell hogs directly to buyers or through an intermediary including, for example, the Ontario Pork Marketing Division. Ontario Pork now has two
divisions, one offering services to members that support hog production and the other offering marketing services (selling of hogs). Since this legislative change in 2010, however, the volatility of pork prices has continued (Brisson, 2014-07-29). It is likely then, that hog prices are more greatly impacted by a variety of other uncontrollable factors (for example, weather and feed costs) but also by disease like the porcine epidemic virus (PEDv; Fielding, 2014). (Refer to previous discussion about the hog cycle in Section 3.2.3 of this dissertation.)

One legal factor that impacted the Ontario pork processing industry is Country of Origin Labelling (COOL) that was proposed by the United States. Until very recently, COOL rules imposed in 2008 dictated that “retailers…label covered commodities according to their country of origin” (Ontario Pork, 2015b). Canada and Mexico appealed the ruling and, eventually, in May of 2015 the World Trade Organization ruled that COOL amendments enacted by the US were not in compliance. The industry is currently waiting to have fines levied on the US to compensate for the discrimination against Canadian and Mexican livestock. This type of legislative battle can have implications for prices and adds uncertainty to the environment for all value chain participants. Domestic processors may, however benefit from a surplus of product available for processing when prices are depressed.

*Environmental-physical factors.*

There are a number of environmental and physical factors and interrelated issues that can impact both animal producers and meat processors. Some of these issues are related to water, air and soil—the physical environment—and others are related to climate change, energy consumptions or the concerns of people living near processing facilities (for example, (Pollan, 2006) or (Lymbery & Oakeshott, 2014), among others). The processing industry can be impacted by these concerns in a number of ways. Issues that are given attention in the media may change
public perceptions about the legitimacy of processing firms to operate in changing environmental conditions and may limit the social license of processors to operate. Issues can also affect businesses directly as they can become a source of poor public relations.

**PESTLE analysis summary.**

Macroenvironment factors that are known to affect the processing industry include: the degree and breadth of government-enacted regulation; the need to understand and keep abreast of consumer concerns about health and nutrition, animal farming methods, the environment, and food trends; continued volatility of interest and exchange rates and the unpredictability of world politics; and, the importance of being a good business neighbour and transparent in your communications with consumers. Less well known factors can also affect the processing industry, but it could be argued that the best approach to these is to consider scenarios and consider contingency plans.

Analysis of Industry Environment

Section 3.4.1 introduced the Five Forces Model (Porter, 1979) as a tool that can be used by strategic managers to assess the industry environment. The five forces tool will be applied next to the meat processing industry in Ontario.

**Five forces tool.**

Competitive Forces analysis was developed by Michael Porter (1979) and has been widely adopted since by managers, policy makers and academics to examine the structure and competitive forces in an industry that affect the ability of the firm to earn returns. This tool has the benefit of encouraging managers to consider the structure of the environment in which they compete: What weaker forces offer opportunities to improve firm success? What stronger forces
may provide a threat to future firm success? The tool has the drawback that it generally considers the environment to be static; that is, the assessment considers the present state of the industry and attempts to predict what may happen to the industry in the future. In addition, owners of firms in the meat processing industry are unlikely to leave the industry even if returns are below that of other industries; not only have they made investments, but it is likely that they have a connection or might enjoy working in the industry. This means that the use of the tool by strategic managers of smaller firms may be more likely to inform their decisions about future changes to product lineups or processing methods, for example, and may be less likely to convince them to divest their interests in the industry as a larger firm might be more inclined (and able) to do.

The five forces that are assessed are presented in the following order: first, the rivalry among existing firms in the industry; second, the risk of entry by new competitors; third, the bargaining power of buyers; fourth, the bargaining power of suppliers; and fifth, the threat of substitutes.

*Rivalry among existing firms.*

Rivalry among existing firms can be discussed according to the scale of the meat processor. For large meat processing firms, of which there are few in Ontario, concerns about competition will be largely from larger, multinational corporations. New rivals sometimes emerge when huge, foreign corporations like W.H. Group (formerly Shuanghui International Holdings) purchase established firms like Smithfield Foods, Inc. in the United States (Singh, 2013). The purchase by W.H. Group was reportedly to give Chinese firms access to lower prices for pork (CBC News, 2014a) since the price of pork in China has been increasing steadily (Holodny, 2015). When considering larger firms in the processing industry, it’s important to note that Canada’s Maple Leaf Foods is a relatively small player. The privately-owned firm,
however, still focuses on achieving high efficiency and productivity to ensure share prices and dividends are supported which will reduce chances of a takeover bid. Maple Leaf recently divested turkey, bakery and rendering operations recently in a move to increase efficiency in the meat products division (Atkins & McNish, 2013; Canada NewsWire, 2013; Gabbett, 2014).

Rivalry for small and medium firms in the industry, on the other hand, does not appear to be intense. Over the last ten to fifteen years, there were a number of closings of smaller processors related to new food safety regulations and the documentation that was impractical to complete for smaller processors without staff and time resources (Sampson, 2010; Wittnebel, 2012); this affected processing capacity in more remote (and less populated) areas of the province because many smaller processors closed as a result of new government-enacted regulations (Sampson, 2010). New legislation reportedly reduced the number of firms participating in the industry from 500 to fewer than 150 firms (Ross, 2011) which had the result of decreasing rivalry among existing firms. Having said this, data collected related to this thesis indicates that many of the smaller processors have well-established relationships with other processors despite the fact that these other processors could be considered competitors.

The meat processing industry has high entry barriers due to the cost of equipment and industry knowledge so meat processing cannot be characterized as a fragmented industry (Hill et al., 2015, p. 52). In fact, it is more likely that the industry is consolidated because one firm’s actions (for example, a failure in food safety procedures resulting in a recall) can have direct implications for other firms.

Although meat has historically been thought of as a commodity-type product, data from this study indicates that some processors have learned how to look for specific customer needs
that will give them greater returns on the use of the whole animal; one example of this is selling specific parts of the hog to certain countries where there is higher consumer demands for those parts. Some processors can also create special cuts for specific customer demands. Having said this, there is some seasonality in demand for meat and poultry (for example, winter holidays or summer barbecuing season) that can cause price cutting or more intense rivalry in the short term for specific products or proteins. There is some evidence in the data from this study that small and medium firms make a conscious choice not to compete with each other, choosing instead to build sales with existing customers and extend product offerings to this market.

There are exit barriers in the industry that would prevent some firms from leaving the industry. In the majority of cases, small and medium firms are privately owned and owned by families who are heavily invested, both in capital and in knowledge, in the industry. In addition, it is unlikely there are many existing smaller firms who are interested in expansion, making an exit strategy increasingly difficult. Buyers are more likely to be found outside the province or the country and they are more likely to be larger firms.

Cost conditions in the processing industry are characterized by high fixed costs so firms tend to compete by ensuring prices do not increase beyond the consumers’ ability to pay, to add value to processed products by innovating, or they must grow volume to cover costs.

**Turkey.**

Although there are firms in the turkey industry that compete for the same supply, government-enacted regulations ensure that quota is allocated and firms must process what they are allocated or they must backward integrate to turkey production if quota is available for purchase. Rivalry among existing firms is, therefore, within the supply management system. Having said this, data collected in this study indicates there are processors who are forward
integrating and competing at the retail level of the value chain. This may or may not cause rivalry depending on the geographic location of the retail outlets.

**Pork.**

In 2000, Canada was the third largest exporter of pork just behind the United States and Denmark (Hayenga, 2000); currently, data from 2013 suggests that the largest exporter of pork in the world is the United States tied with the European Union at 32 percent each of the world market followed by Canada at 18 percent and Brazil at 8 percent (National Pork Board, 2014).

Larger processors of pork in North America compete with a strategy of overall cost leadership that involves processing high volumes of pork while maximizing efficiency and productivity and keeping costs low. In fact, quality in pork has been identified as a less important attribute for retail representatives according to one study (Gooch, LaPlain & Felfel, 2012). Because larger processors in Canada must run their plants at capacity in order to achieve high efficiency, they export to achieve processing volume since the domestic market is smaller than required; this position means that exchange rates are important to these processors as they can directly affect their export markets. There is intense rivalry between larger domestic processors and foreign processors for export markets, in particular because Canadian processors have had “significant cost disadvantages” (Hayenga, 2000, p. 10) compared with American processors. The intensity of this competitive rivalry can be heightened for a number of reasons, including (but not limited to) exchange rates for the Canadian dollar, global political issues that arise, or the size of hogs being processed (Hayenga, 2000, p. 10). Smaller processors who process pork usually process other proteins in addition to pork. This allows them to operate with a differentiation strategy and they may develop products for specific market niches, for example, gluten-free products. Smaller processors tend to have customers who are regional or local so they
can add value by creating pork products, offering recipes, or create lines of sauces and rubs like some of the processors interviewed in this study.

Risk of entry by new competitors.

When there is little risk of entry by new competitors from outside the industry it represents an opportunity for industry firms who might be able to raise their prices and earn higher returns. The risk of entry by new competitors in the processing industry can be judged by examining the factors that would make it costly for other firms to enter the industry.

Larger processors can earn returns through economies of scale; however, data in this study indicate that many of the small or medium processors cannot compete using a low cost strategy because they do not have large enough markets over which to spread their costs. Many smaller processors interviewed in this study are using social media as a way to increase exposure to consumers, to reduce marketing expenses, and to pay close attention to customers concerns and needs.

There is evidence that meat processors compete using safety and quality as brand attributes. Many processors—larger and smaller—have followers on social media accounts that provide some signal of brand loyalty in the eyes of consumers. Brand loyalty, it could be argued, however, may be easier to maintain when there are fewer competitors who could step in and take market share in the event of a crisis. Because the meat processing industry is so highly regulated, there is an argument that there are minimum levels for some product attributes. This means that firms have an opportunity to build relationships and these relationships become the brand by which loyalty is earned. This could be termed firm loyalty rather than brand loyalty and would still serve to decrease the risk of new entrants. There was evidence in this study that some
smaller processing firms were developing innovative marketing strategies, focusing on customer
delivery or service; others frequently rotated and created new products to keep consumers
interest in the firm brand.

Gaining experience and acquiring knowledge about meat processing is one way that firms
in the industry can have an absolute cost advantage that reduces the risk of entry by new
competitors. Many smaller processors have decades of experience and training in all aspects of
the business; new entrants would have to invest in this knowledge and experience which could
take years. There are other skills and knowledge that are specific to the meat processing industry
or hard to obtain. Some of these skills and knowledge could include new product development,
sausage making, food regulations and safety, etc. Although there are concerns in the industry
about skilled labour shortages, this particular concern also reduces the risk that new entrants will
threaten existing firms. Since existing firms control the currently existing skilled labour, this also
reduces the threat of new entrants. It is possible that existing firms with a proven track record
and strong credit ratings will also find it easier to get loans for expansion or improvements than
new entrants allowing for another way that absolute cost advantages can be realized.

Customers switching costs also serve to decrease risk of entry by new processors.
Because retailers and processors currently in the industry have established relationships, there
are costs to customer of processors if they switch suppliers. There was evidence of cooperation
collected in this study among some smaller, regional processors who are prepared to send
customers to another processor if the first firm cannot fill an order for a variety of reasons. (This
type of cooperation among firms in the industry may also be an indication of the level of trust
among some processors, a factor that may also be a deterrent to new entrants.) Data also suggests
that firms are creating value for customers on an ongoing basis by creating products for specific
customer needs, for example, based on flavour or ingredient trends or dietary restrictions. This activity can also reduce the threat of new entrants to the industry.

Overall, there are loyal relationships in the industry for many smaller firms, some absolute cost advantage over potential competitors for some larger processors, economies of scale for larger firms in the industry, and high switching costs and regulatory protection for all firms in the industry. This results in a relatively weak competitive force and companies, theoretically, can charge higher prices resulting in higher industry profits.

**Turkey.**

There is little information to suggest that supply management policies would affect the risk of entry by new competitors for smaller firms, however, larger firms indicated that the limits to volume are sometimes a challenge. This means that new entrants are unlikely to process only supply managed proteins unless they can be assured that they will have a supply to process. This leads to a low risk of entry by new, larger processors who need to process using a low cost competitive strategy.

**Pork.**

The risk of new entrants into the pork processing industry could be considered high because of a combination of high volatility and low earning potential. New entrants processing pork would currently be assured supply, however, they may be likely to consider ways in which they could add value or process other proteins in order to increase rents and spread their risk.

**Bargaining power of buyers.**

This force affects the ability of a firm’s customers (a consumer or a retailer) to switch to demand better quality or service or to negotiate lower prices with the firm; a powerful buyer represents a threat to firm success by pitting one firm against another.
There are two main types of buyers for the processing industry. Smaller processors sell directly to consumers, often through retail outlets they own and operate; these buyers can make a choice about which butcher or processor they will buy from based on attributes of importance to them. Larger processors usually sell directly to grocers or retailers. There are few, large retailers that are increasingly demanding lower prices from their suppliers; retailers who import products must adhere to government-enacted regulations for import. This is particularly important for processed turkey products because of supply management policies that govern imports of turkey.

Changing consumer preferences are likely to continue to drive attributes in the meat products available at retailers; however, for the time being, intense competition among retailers means that they continue to compete primarily on cost. There are some exceptions to this: first, processors who provide value added store or premium label brands can reduce the bargaining power of buyers if they create unique products; second, there are some indications that farmers’ markets and smaller specialty stores are growing in number which will decrease the bargaining power of buyers in the processing industry.

Some smaller processors depend on a larger number of regional customers meaning that the bargaining power of buyers is reduced. Larger firms, however, there are some larger firms who depend upon certain buyers for a large percentage of their total orders. This would represent a threat to the industry. There are many factors that could affect the ability of a buyer to switch from one industry supplier to another. In some cases, when processors are packaging meat products for private or store labels, they may use strategies (for example, like requiring the buyer to invest in packaging with their logo) to help lock in contracts for a certain time period to reduce the chances of a buyer switching suppliers.
**Bargaining power of suppliers.**

The bargaining power of suppliers relates to factors that affect the ability of a firm in an industry to make choices between suppliers of the raw materials necessary for production.

**Turkey.**

Under these policies, producers have been given power to control both the supply and the price charged for turkey. Some industry organizations that are lobbying aggressively against supply management regulations (Further Poultry Processors Association of Canada, 2014a, 2014b). As evidenced lists of directors on these associations, these associations represent the larger processors who rely on high volumes of inputs to keep plants operating at capacity. There was some indication in the data collected in this study that larger processors of poultry in Canada have concerns about running plants with excess capacity; this fact would logically lead them to oppose restrictions of supply management policies. The fact that supply of poultry is controlled also means that there are no substitutes and power is in the hands of the producers (suppliers); this results in a threat to those firms in the industry that process poultry. There is some indication that minor reforms are being discussed. As consumers increasingly demanding local food, for example, work is underway to investigate how supply management reforms could support northern communities in Ontario with small flock exemptions for small, northern producers or by processing using mobile abattoirs (Food Security Research Network, 2014).

The power of turkey suppliers is not affected significantly when processors purchase from other producers since the choice of suppliers is limited to producers with quota and there are few suppliers so their power is high. This could represent a threat to the turkey industry in the event there are problems with supply. The Chicken Farmers of Ontario has a number of programs that may, in part, are related to the bargaining power of the suppliers; these include, for
example, options for small flock operations, for young farmers wishing to enter the industry, for processors wanting to develop new markets, and for producers wishing to grow specialty breeds for niche markets (Chicken Farmers of Ontario, 2015b). Similarly, turkey producers are trying to understand why some ethnic markets do not eat turkey and how best to introduce these groups to the protein (Turkey Farmers of Ontario, 2015a), however, there are no indications that turkey producers are considering reforms like the chicken sector that would affect the bargaining power of producers. Many turkey processors are backward integrated and control both production and primary processing; this may explain some of the differences between chicken and turkey sectors. Overall, there is little to differentiate the chicken or turkey produced by suppliers and this would decrease their bargaining power in an unrestricted market, however, in a supply managed environment, power of suppliers is high.

**Pork.**

The bargaining power of suppliers is low for the pork sector. Substitutions are easily made when and if processors switch suppliers because most pork is similar in terms of quality and the existence of other product attributes is rare. There are few switching costs for changing suppliers in the pork industry. Suppliers (producers) are unlikely to enter the processing industry although there are cooperatives that were formed when producers joined forces to process pork to increase their bargaining power. Threatening to enter the suppliers’ industry is a tactic that can decrease the bargaining power of suppliers; however, this strategy requires much investment and knowledge and is risky.

*Threat of substitute products.*

The threat of substitute products affects the bargaining power of suppliers to a degree but the end user dictates whether the demand is for animal protein or alternative protein sources.
Although proteins are a necessary part of the human diet, animal proteins can theoretically be substituted for one another although this may not be practically possible for cultural or religious factors. Substitution with a different animal protein may be more likely: during an outbreak of disease; when there is a perceived or real food safety issue; or, with one species or when costs increase dramatically. All of these issues could increase the bargaining power of suppliers of substitute proteins. There is a growing interest in protein from other sources that may one day present a threat to the meat processing industry. Protein from pulses is widely consumed in other regions of the world, however, the consumption of pulses (for example, dried beans, chickpeas, lentils) is just beginning to grow in North America, perhaps due to the changing cultural landscape, due to changing tastes and nutritional concerns, or due to increasing awareness about pulses and their environmental or ethical footprint (Pulse Canada, 2015). In the long term, particularly if the costs of animal farming continue to rise, the industry could be threatened by pulses domestically. It is known that meat consumption increases in countries where individual income rises above the poverty level (Delgado, 2003) but this may not affect the majority of firms in Ontario, Canada whose main customers are found in the domestic market. Although pulses have not historically been part of the North American diet and many consumers enjoy eating meat and can switch to lower cost cuts of meat, it is possible that more consumers will turn to pulses if meat prices continue to rise in Ontario.

*Industry analysis summary.*

The competitive forces analysis may be summarized in terms of the strength of the forces in this analysis (for example, high, medium or low); results from this analysis are then used by firms to find industries (or positions in an industry) where there are the fewest threats, the most opportunities, and the greatest likelihood of firm success.
External Stakeholder Analysis

*Introduction to stakeholder analysis.*

Freeman (1984) explains that neither the managerial view nor the production view of the firm can help managers address turbulence that arises from both internal and external changes; there is a need to reconceptualise using the Stakeholder view of the firm to help managers “redraw the boundaries...in terms that he or she can understand, while taking into account the sum of all the changes that have occurred” (p. 24). The analysis that follows uses Freeman’s (1984) approach to a stakeholder analysis for the Ontario meat processing industry. While this analysis is usually applied at the firm-level, it is used here at the industry-level to gain insights that may not be clear with the other analyses.

In order to begin a stakeholder analysis, Freeman (1984) advises managers to first identify both internal and external stakeholders of those firms in the industry; the same will be done for the Ontario meat processing industry as a whole. Figure C3 shows a map of stakeholders in the industry.
Freeman (1984) advocated adding a sixth force to Porter’s Model of Competitive Forces which he labelled the Relative Power of other Stakeholders; this force would allow managers in an industry to assess the “cooperative potential and competitive threat of each stakeholder” (Freeman, 1984, p. 141). The identification of each stakeholder by their cooperative potential or competitive threat suggest which one of four generic, stakeholder strategies is best used. The generic stakeholder strategies and the associated programs are described in Figure 3.4. It can be
noted that the dimensions in Figure 3.4 rely on the judgment of the firm manager to determine if the relative cooperative potential or the relative competitive threat is high or low; this would vary with firm size and the way that the firm approaches competition, for example, with a differentiation or cost strategy. This analysis could be helpful in this research because it incorporates cooperative potential of external stakeholders into an external assessment; this could be useful in examining relationships in contexts where there are supply management policies.

**Figure C4. Generic Stakeholder Strategies and Programs**

This figure illustrates four generic strategies of Freeman (1984, p. 143) that identify possible responses to stakeholders on dimensions of relative cooperative potential and relative competitive threat.
Freeman emphasizes the interconnectedness of stakeholder groups (1984, p. 58) and so the Ontario meat processing industry will be examined using the map of stakeholders, their interconnectivity, and Freeman’s (1984) four, generic strategies. The benefit of doing such an analysis, argues Freeman (1984), is that a broad range of stakeholders and dimensions other than firm success are considered (p. 65) and industry managers can create strategies and concrete actions based on this analysis (p. 68). The stakeholder analysis can provide an additional perspective for managers and an additional tool by which to identify and consider future trends. In the interest of brevity, one key stakeholder is discussed with respect to each generic strategy for the Ontario meat processing industry; two of these four examples will be discussed specifically within the turkey and pork segments of the industry.

Swing strategy.

Freeman (1984) noted that a swing strategy would be used when the cooperative potential of a stakeholder is high and the relative competitive threat is low. In the Ontario meat processing industry, the use of social media is an example of how meat processors, both larger and smaller, are attempting to control conversations and use a swing strategy with customers. Larger firms tend to promote “responsible citizenship” (Maple Leaf Foods Inc., 2014) on their website and share information about food safety, animal wellness, community outreach and their knowledge base in food preparation. Smaller firms use websites to achieve much the same goals but often focus on traceability of meat (VG Meats, 2015), interest in locally-raised meat (Thatcher Farms, 2015) or health-related concerns of consumers (The Valli Girls, 2015). Many firms also appear to have embraced social media, particularly Facebook and Twitter, in an attempt to communicate more regularly with customers and build on their cooperative potential. By establishing these relationships, firms in the industry may feel that they have a better chance to use a swing strategy
to encourage consumer groups to think about particular issues when making a meat purchase decision.

**Offensive strategy.**

Freeman (1984) explained that an offensive strategy could be used to exploit beliefs when there was relatively high cooperative potential and relatively high competitive threat from a stakeholder. Government can offer an example of this type of stakeholder because there is cooperative potential due to the shared interest in successful businesses in the region, province and country and because there is a degree of competitive threat if government legislation has intended or unintended consequences that are negative for an industry. Firms both large and small may consider using an offensive strategy to change beliefs about firms in the industry, although the content of their arguments differ somewhat. Examples include: firms arguing their social legitimacy and ability to support rural development (Cargill Inc., 2015c); firms sharing their innovation success (www.facebook.com/pages/Metzger-Meat-Products, posted November 13, 2013); or trade organizations reminding stakeholders that the processing industry is in desperate need of skilled labour (www.facebook.com/OntarioIndependentMeatProcessors, posted July 15, 2015). By communicating concerns and celebrating successes, industry firms can use an offensive strategy to ensure that government is aware of the opportunities and threats that the industry faces.

**Hold strategy.**

Freeman (1984) observed that a hold strategy can be used when there is low potential to cooperate and a relatively high competitive threat from a stakeholder. An example of a stakeholder in this category could be the supply management marketing boards; there is little opportunity for processors to work within the system that is highly controlled by producers yet
changes to the supply management system could impact the strategies of industry firms. Some larger, backward-integrated, processing firms indicate they are “active supporter of supply management” (Cargill Inc., 2015b) but other large firms who are no longer involved in poultry production have indicated that the poultry industry won’t allow fair returns for all stakeholders (Knisley, 2003). Smaller processors and the associations that represent them (for example, the Ontario Independent Meat Processors) do not mention supply management on their websites, generally speaking. One interpretation of this could be that supply management is a non-issue and the industry is better to take a hold strategy and talk about the positive aspects of the industry taking the approach that it is better the devil you know.

Defensive strategy.

Freeman (1984) advises a defensive strategy when the stakeholder has both relatively low cooperative potential and low competitive threat. One example of this type of stakeholder could be animal rights groups, for example www.GuelphPigSave.com, that posts videos sharing alleged abuse of animals destined for slaughter and protest Ribfest events driving the “routine mutilation” (Guelph Pig Save, 2015) of hogs; another would be the Ontario Society for the Prevention of Cruelty to Animals (Ontario SPCA) that operates a complaint service for illegal slaughter (Ontario SPCA, 2012). Since there is low cooperative potential from groups with different ideals and beliefs, processors would work to build their reputations and link to issues that allow their activities to be viewed more favourably. Larger processors usually have a link on their website for animal wellness or humane animal care that reminds stakeholders that animals that are well cared for are important for the business (Cargill Inc., 2015a). Some firms maintain or strengthen existing animal welfare programs by including further information in company sustainability reports under the heading of social responsibility (Maple Leaf Foods Inc., 2014).
Smaller processors tend to tell the narrative of the firm and the personal commitment of owners to caring for their animals (for example Hayter's Farm (2011) or by linking the care of animals to ethics and meat quality at the same time (VG Meats, 2015). Key industry associations, for example the Canadian Meat Council (CMC), also work to reinforce beliefs about their members by addressing standards for animal treatment during transport and slaughter to processing facilities (Canadian Meat Council, n.d.). These cases demonstrate examples of the defend strategy being used when relative cooperative potential and competitive threat are both low.

**Summary of stakeholder analysis.**

There are many stakeholders for firms in the meat processing industry and four generic strategies that can be used to address these. Firm size and competitive strategy may influence the extent to which a firm judges the stakeholder as a higher or lower competitive threat or as a high or low cooperative potential. The relative power of stakeholders should also be considered when using this theory; power may change over time and may influence firm judgements about competitive threats and may affect the cooperative potential for some stakeholders.

Section C4. Summary & Relevance of Assessments

The previous three assessments of the external environment of Ontario meat processing firms provides a description of the opportunities and threats faced by firms. The PESTLE analysis focused on external factors that can impact the environment in which the firm operates and there are many that can affect the meat processing industry. The PESTLE analysis illustrates how firm managers may consider various scenarios and to gather data about a number of factors from many sources. The PESTLE analysis, however, cannot predict what will happen in the
future nor does it guarantee that judgements managers make the impact of these factors will accurate.

The Five Forces analysis focused on forces affecting the industry and can help managers to assess where firm returns may be threatened and where firms may earn superior returns. The Five Forces analyzes forces in the environment and assesses how they may affect the firm so that managers can identify the most successful strategy. According to the assessment of the meat processing industry in this chapter, for example, smaller processors may be less threatened than are larger processors by forces in the industry. This analysis, however, can only assess the past and does not account for changes in the environment. Changes in the industry environment may mean that managers must make a judgement about how changes in the industry or in the external environment will affect their industry and their firm. Additionally, The Five Forces analysis does not consider how firms may use capabilities to address any of the five forces.

A Stakeholder analysis identified external stakeholders in the meat processing industry and discussed four strategies that could be used to address these stakeholders based on their competitive threat and cooperative potential and gave examples of how each strategy could be realized in the meat processing industry. While this analysis addresses how to create value for both external stakeholders, an assumption is made that firm managers will have the time and the strategic and relationship skills to plan and execute these strategies successfully concurrent with other managerial tasks.

Taken together, the results of these assessments suggest that firms in the meat processing industry face an environment of change. There are complex and multiple challenges facing any firm, larger or smaller. What is not identified by any of these three tools, however, are the
capabilities developed and used by firms use to take advantage of opportunities and to mitigate threats. The tools applied in this chapter suggest that firm capabilities that are most helpful may vary by the size of the firm, by the strategy the firm uses to compete, or by the approach the firm takes to relationships with external stakeholders. The assessments suggest that it is important in this research to take note of firm size, firm strategy, and approach to external stakeholders in this research in order to understand how firms assess their industry threats and opportunities and how they approach their external environment.
Data used to create the figures in this appendix were taken from CANSIM tables published by Statistics Canada available at http://www5.statcan.gc.ca/cansim/a01?lang=eng and searchable by number or topic.

Figures D1 to D4 were based on data in CANSIM table 326-0020 (Statistics Canada, 2015). The figures illustrate the Consumer Price Index as an annual sum in Canada and Ontario for 2000 to 2014 for selected categories; they are grouped on pages together according to topic so that Ontario data can be compared with that of Canada. The Bank of Canada core index is illustrated in a wide line on each chart for comparison purposes; this line represents eight categories considered the most volatile and includes:

1. fruit, fruit preparations and nuts;
2. vegetables and vegetable preparations;
3. mortgage interest cost;
4. natural gas;
5. fuel oil and other fuels;
6. gasoline;
7. inter-city transportation; and
8. tobacco products and smokers' supplies.
Figure D1. Consumer Price Index by Food Categories (Annual Sum, Canada).
This figure shows the Consumer Price Index (CPI) in Canada for all food and major food categories in Canada. The meat category has increased sharply since 2010.
(Statistics Canada, modified:2015-08-21b)
Figure D2. Consumer Price Index by Food Categories (Annual Sum, Ontario).
This figure shows the Consumer Price Index (CPI) in Canada for all food and major food categories in Ontario. The meat category has increased sharply since 2010.
Source: (Statistics Canada, modified:2015-08-21b)
Figure D3. Consumer Price Index for Food and Meat Categories (Annual Sum, Canada).

Figure C3 shows the raw materials price index by category as an annual sum from 2000 to 2014 in Canada and the general upward trend of all prices over this time period. These data were derived from CANSIM table 330-0008. (Statistics Canada, modified:2015-08-21b)
Figure D4. Consumer Price Index for Food and Meat Categories, 2010-2014 (Annual Sum, Ontario).
This figure shows how prices of food and meat categories have been increasing from 2000 to 2014 in Ontario; patterns are similar to those in the country. (Statistics Canada, modified: 2015-08-21b)
Figure D5. Raw Materials Price Index Using North American Product Classification System (NAPCS), 2010-2014 (Annual Sum, Canada).

This figure shows a general upward trend and variability in price indices for a variety of raw materials in Canada. In 2008 during the financial crisis the figure illustrates how raw material price indices were affected by crisis and how the indices responded in 2009 following the crisis. (Statistics Canada, modified:2015-07-28)
Figure D6. Raw Materials Price Index for Animals and Animal Product Categories, by North American Product Classification System (NAPCS), 2000-2014 (Annual Sum, Canada).

Figure C-6 shows the raw materials price index for animal and animal products and selected categories in Canada from 2000 to 2014; data is not available by province for this index. Data for this figure were derived from table 326-0012. (Statistics Canada, modified: 2015-07-28)
Figure D7. Retail Prices for Food and Selected Protein Alternatives in Canada, 2000-2014, Annual Average (in dollars per kg).

Figure C-7 uses data from CANSIM table 326-0012 that shows average retail prices for food and selected protein alternatives, for example, salmon, eggs and peanut butter. Pork products in this data cost relatively less per kilogram than beef products; the data does not contain statistics for turkey. (Statistics Canada, modified:2015-08-21a)
**Figure E1. Final Interview Protocol.**

This protocol lists questions asked in the study. The visual format was used by the researcher and was made available to participants in advance of the interview. Firms in the BOTH context were asked questions in the bottom right rectangle.
### Table F1. Comparing Two Approaches of Case Research Method.

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<tr>
<td>- Article</td>
<td>- Book</td>
<td>- 20 years between publications</td>
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<tr>
<td>- Focus on inducting theory from case studies</td>
<td>- Focused on detailed process for case method research</td>
<td>- Focus on format and detail</td>
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<td><strong>Goal:</strong> focuses on the case method as a type of quasi-experimental approach with strict procedural guidelines</td>
<td><strong>Goal:</strong> single article to convince researchers in 1989 that case study research had similarities to hypothesis testing research (p. 532)</td>
<td>- Two decades of case research method separate the two approaches; this may indicate an acceptance of the approach generally and a focus on practical research skills related to the method.</td>
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<tr>
<td>Selecting cases</td>
<td>Design</td>
<td>- Type of knowledge (practical or theoretical)</td>
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<td>- neither theory nor hypotheses</td>
<td>- define unit of analysis and cases to be studied</td>
<td>- Researcher flexibility</td>
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<tr>
<td>- specified population</td>
<td>- develop theory, issues</td>
<td>- Terminology</td>
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<td><strong>Crafting instruments and protocols</strong></td>
<td>Prepare</td>
<td>- Level of analysis of detail</td>
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<td>- multiple data collection methods</td>
<td>- hone skills, train for specific study</td>
<td>- Research Ethics</td>
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<td>- qualitative and quantitative combined</td>
<td>- develop protocol</td>
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<td>- multiple investigators</td>
<td>- conduct pilot</td>
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<tr>
<td><strong>Entering Field</strong></td>
<td>Collect</td>
<td>- Placement of iterative detail</td>
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<td>- overlap data collection and analysis, field notes</td>
<td>- follow protocol, use multiple sources of evidence</td>
<td>- Flexibility versus Prescriptiveness</td>
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<td>- flexible and opportunistic data collection methods</td>
<td>- create case study database</td>
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<tr>
<td><strong>Data Analysis</strong></td>
<td>Analyze</td>
<td>- Few differences other than organization and levels of detail</td>
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<td>- within-case analysis</td>
<td>- rely on propositions and other strategies</td>
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<td>- cross-case pattern search with divergent techniques</td>
<td>- consider various analytic techniques</td>
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<td><strong>Shaping Hypotheses</strong></td>
<td>- explore rival explanations</td>
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<td>- iterative tabulation of evidence</td>
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<td>- replication logic</td>
<td>- display data apart from interpretations</td>
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<td>Enfolding Literature</td>
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<td>- Iterative process emphasized by Yin</td>
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<td>- comparison with similar and conflicting literature</td>
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<td>Reaching Closure</td>
<td>Share</td>
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<td>- theoretical saturation when possible</td>
<td>- define audience</td>
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<td>- compose textual and visual materials</td>
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<td>- display sufficient evidence</td>
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<td></td>
<td>- review and re-write</td>
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<td>- knowledge involves continual cycling between theory and data`` (p. 549)</td>
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Appendix G – Description of Cases in Study

This appendix contains charts summarizing demographic data captured in the case spreadsheet during data analysis for all cases in the study. A total of 14 firms participated in interviews in this research, thus, the summaries below are based on 14 participating firms rather than on interviews with 16 managers or the resulting 16 transcripts. Two additional interviews were scheduled with two firms at the suggestion of the first interviewee so that questions specifically related to the procurement function could be answered in greater detail. These additional interviews were shorter in length than those with the general managers; additional interview times were added to the total minutes of time spent interviewing the firm (case) as a whole.

Figure G1. Interview Method for Cases in Study.
Twelve interviews were conducted in person; four were conducted by phone.
Figure G2. Input Type.
There were three contexts in the study as defined by input type. Three interviews were conducted with firms processing only turkey (supply managed or “SM” case); one firm processed only pork (non-supply managed or “NSM” case), and twelve firms processed both turkey and pork (both supply managed and non-supply managed or “BOTH” case).

Figure G3. Type of Meat Processing License.
Eight firms had federal licenses for processing and six firms had provincial processing licenses.
Figure G4. Type of Processing Plant.
Eight firms conducted further processing only (no slaughter); six firms conducted both primary and further processing. No cases in the study conducted slaughter (primary processing) only.

Figure G5. Firm Ownership.
Ownership of 14 firms was private; 2 firms were publicly owned.
Figure G6. Firm Size.
A description of firm size depends upon the scale used. The number of firms in the study is shown in the chart below using scales for both Industry Canada (IC) and Ontario’s Occupational Health and Safety (OHSA). The scale used presents the data differently. Of fourteen firms in the study, the majority of firms would be classified as “small” by Industry Canada; using the Occupational Health and Safety scale, the majority of firms interviewed were “large” in size.
**Figure G7. Legal Structure.**
The majority of firms were corporations or limited companies. The category “other” category includes alternative ownership structures.

**Figure G8. Social Media Presence.**
Social media presence was recorded for each firm and was identified using the firm presence (or absence) on social media websites. YouTube was included because several firms had videos on their company websites; other videos had been posted by entities other than the company.
Pinterest is a site that focuses on sharing visual content; this social media platform was considered as marketing because of its usefulness in showing pictures of food and because it was the most recent type of social media site to be used by more than one firm.

![Pie chart showing the age distribution of firms.](image)

**Figure G9. Age of Firm.**

There were no firms in the study that were five or less years in age. Eleven of the fourteen firms in the study were classified in the “21-30yrs” of age or “<30yrs” of age categories.

![Pie chart showing the distance of firms from Guelph.](image)

**Figure G10. Firm Distance from Guelph.**

Firms were categorized by their distance from Guelph, Ontario. Due to Guelph’s location in the highly populated region of southwestern Ontario and its proximity to agricultural farmland, many firms in the study could be identified within 100km of Guelph.