

Full Length Research paper

Research Topics for Case Studies in Agribusiness Management and Economics

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The evolution and technique of case-study research are topics of much controversy in the fields of agricultural and applied economics. In spite of this, no case-study research studies based on the traditional case-study technique have been published. Although case-study research is a crucial methodological technique in the social sciences, graduate schools in applied economics and agriculture typically do not teach it. Discussing two distinct researchable issues that call for substantial data collection and are appropriate for research and dissertations is the goal. In order to better understand the relative shape of supply curves and their relative elasticities of supply for food goods, the first topic is to gather supply data for these products in order to inform the theoretical contributions in geographic indications. Understanding the depth of global agricultural supply networks in a relevant area like sustainability is the second topic. With individual enterprises as the focus of each data set, both topics would offer cross-sectional and time-series aspects in a comprehensive experimental design. Graduate degree programs have the option to concentrate on case-study research, which is appropriate for dissertations. This is particularly true for agribusiness economics and management graduate students who want to become teachers.

INTRODUCTION

The function of teaching or decision case studies published in the *American Journal of Agricultural Economics* (AJAE), *Journal of Natural Resources and Life Sciences Education* (JNRLSE), *International Food and Agribusiness Management Review* (IFAMR), *Case Research Journal* (CRJ), and *Applied Economics Perspectives and Policy* (formally *Review of Agricultural Economics* (RAE)) was summed up by Boland and Cağır (2018). Case studies were published by the AJAE from 2011 to 2017 and the RAE from 1996 to 2010. Since their founding in 1998, the JNRLSE and IFAMR have consistently published cases, and the CRJ is the top-ranked decision case journal. Because the structure of Harvard Business School Publishing's cases differs from that of academic publications, Boland and Cağır (2018) did not review those instances. They discovered that IFAMR released 77 decision case studies between 1998 and 2018, whereas RAE published 72 between 1996 and 2010. However, they were unable to locate any published case-study research that was based on a case-study approach, with the exception of Wysocki's (1998) dissertation.

Penrose's (1960) case on Hercules Powder, which included a substantial amount of data collecting through interviews, is one of the classic case-study research readings. This is still the standard reference for works on firm resource theory. In contrast to Penrose (1960), a research case study typically does not provide a significant number of citations or provide the basis for a novel theory. However, it is surprising that case-study research is not a popular approach in social sciences like applied economics and agriculture. Therefore, although though case-study research is described in a lot of papers, it is not actually carried out in practice, maybe because PhD programs do not teach it as a methodology. This essay aims to rectify this issue by offering two instances of data gathered through case research analysis and possible case-study research for dissertations.

What Is Case-Study Research?

Two In order to investigate the reasons of underlying principles, case-study research approaches entail a descriptive study or in-depth assessment of a particular person, business, organization, or event. One or more case studies that are theoretically grounded and based on a variety of evidence sources, including quantitative evidence, can be considered case-study research. Case studies are comprehensive assessments of individuals, organizations, events, decisions, time periods, policies, institutions, or other systems using one or more methodologies.

Case studies can be classified as (1) illustrative, which describes an event or situation so that people can learn

more about it; (2) exploratory, which is a condensed case study to gather basic data that could be used to identify a particular question for a larger study; (3) cumulative, which is intended to gather information for events and aggregate them to analyze in greater generalization; and (4) critical instance, which are studies to examine situations of unique interest or to challenge a generalized belief. Yin (2018) outlines these types of case studies. One Interviews, direct participant observations, protocol or transcript analysis, document or record reviews, field studies, and artifact investigation are just a few of the many techniques and methodologies a researcher can employ to gather data. To gather data, researchers can either employ a single-method strategy, which involves using only one of these techniques, or a multimethod approach, which involves using multiple techniques. Usually, case-study researchers use coding procedures to analyze their data. The data can be divided into smaller sets and then merged into several data sets if it is not being investigated as a single set. This is typically the case when data was gathered over a variety of time periods. For instance, some firms may use a marketing year end, which could be August or September when harvest takes place in the northern hemisphere, while others, particularly those operating near production agriculture at the first handler level, may use a year-end basis, which could be a calendar year (Boland 2018).

The procedure for getting ready for an Institutional Review Board (IRB) review of human subjects is a good place to start. When employing direct participant observations or field interviews, such applications necessitate a well-thought-out data gathering strategy. An IRB carefully considers the experimental design in light of the conclusions that will be drawn from the data. papers such board meeting minutes, bylaws, articles of incorporation, or other governance papers, or corporate records in library archives, can be gathered using a standard reporting procedure if human subjects are not used in the data collecting process.

Sources and Uses of Data

The standard source for social science case-study research methodology is Yin (2018). The contributions made by Coase (1937), Holmström (1979), Ostrom (1990), Williamson (2005), and Hart (2017) for their Nobel Memorial Prizes in economics, as well as how their theoretical contributions could serve as research and dissertation topics, are covered in more than two dozen articles written by faculty members in agribusiness economics and management. Case-study research is recommended as a possible area of study for new institutional economics in a number of these papers. Nevertheless, there is a dearth of empirical research in spite of these theoretical contributions; Knoeber (1989) and Balbach (1998) are two significant exceptions. Why is there so little case-study-based empirical research? It is not the absence of information in food and agricultural markets, which must take into account a wide range of

contextual circumstances and variables that are cultural, economic, historical, organizational, and political. When examining how businesses make decisions between competitors and within an industry throughout time and space, these elements and related data may be the main emphasis.

Case-study research does not have a problem with data. There are several new data sets available in academic units that can collaborate with IRBs to address privacy and confidentiality issues. Faculty at business colleges need access to market research data from Compustat, EuroStat, IRI, Nielsen, and the University of Chicago Kilts Center because these institutions have financial resources. The North American Industrial Classification System (NAICS) is used to categorize the firms in this data. Similar information is starting to surface in the EU. Figure 1 illustrates the availability of segment data in Compustat, for instance. Data for publicly traded companies in a certain NAICS industry could be produced by a researcher. The business components of an input supplier to a farmer are depicted in Figure 2. Although there are restrictions on privately held companies, industry sources may provide confidential data. Such data can be combined with additional data, such as the number of facilities, mergers or other company combinations, senior management changes and tenure, and/or newly released goods, to generate a data set that can be used to study changes in the industry using U.S. data.

Securities and Exchange Commission (SEC) and trade publications. Combining this with data linked to variables from new institutional economics can provide additional theoretical applications.

Public and private libraries are additional sources of information. They may contain corporate records related to the food industry that might be used as the basis for a study case. For instance, the Minnesota Historical Society gathered newsletters and yearly reports from consumer and agricultural cooperatives. Using Penrose's (1960) work as an example, these and other corporate records serve as a basis for establishing a firm's business history and decision-making. There have been attempts to evaluate hypotheses of the Nobel laureates mentioned earlier through case studies. This calls for the kind of data on tomato canning that Goodhue, Mohapatra, and Rausser (2010) employed. There is no variation in grades or criteria when examining data by trucks and farms for orchard crops like fresh apples, pears, and peaches that are canned. Indeed, it was evident from consulting with senior management and farmers of pome fruit, tree nut crops, and other orchard crops that 21st-century agricultural practices had led to the majority of crops receiving the top marks. For instance, the California Canning Peach Association is likely to sell more than 95 percent of the top grade canning peaches in any given year. Other industries have comparable statistics. Contract theories are less useful to test empirically when

such crops lack variability. Indeed, farmers and agricultural businesses use and distribute the works of Holmström (1979) and Hart (2017) extensively.

Two Examples of Research Topics Requiring Case-Study Research

In recent years, a number of theoretical contributions have been made by agricultural economists who suggest in the conclusions of their manuscripts that data are needed to test these theories. Two such streams of research are described below, and data collected using case-study research could help test these theories.

Geographic Indications in the European Union

In trade talks between the US and the EU, differentiated food items identified by their manufacture, processing, and geographic location are a hotly debated topic (Josling 2006). With the exception of certain cheese markets, there is compromise in the wine and alcohol industry but not in the food sector. In order to comprehend the function of differentiated goods and how they are perceived, agricultural economists have made significant theoretical contributions (Lence et al. 2007; Moschini, Menapace, and Pick 2008; Mérel and Sexton 2012; Menapace and Moschini 2014). Individual product literature is available (Hayes, Lence, and Stoppa 2003), but firm microlevel literature is few or nonexistent. For theoretical microlevel analysis, case-study research has benefits, especially when it comes to supply responsiveness.

The four designations for microlevel analysis are as follows: (1) Optional quality phrases, such "Mountain-grown," refer to a feature of one or more food types, farms, or processing attributes that are applicable in particular geographic areas and have an EU component. They also add value to a product when compared to similar items. (2) Guaranteed traditional specialties are products that are prepared using traditional methods, including "maturing for 12 months" or using components that have been utilized for a long time. To identify the product's traditional or distinctive nature, the term should be utilized in a traditional manner. (3) A product can be identified as coming from a specific region, such as France, thanks to protected geographical indicators. At least one of the production processes must occur in the designated location, and the product's quality, reputation, or other attributes should be attributed to this area. (4) Protected designations of origin designate a product as coming from a certain location that, because of its topography and related natural and human causes, bestows certain attributes. All of the production occurs in a specific geographic area, such as the three Greek regions where feta cheese is made from the milk of sheep that eat the grass there, which has special botanical qualities. This can occasionally be as big as an entire nation.

Figures 3 through 7, which were compiled in July 2018, show several methods for analyzing data. Figure 4 displays the number of the four designations accepted by the EU in three categories, whereas Figure 3 lists the four designations utilized with the EU in order of how tough it is to qualify for this designation. Optional quality terms are not monitored by the EU. The number of the four designations that have been approved by year since 1996 and the sort of food products that have been recognized as of July 1, 2018, are displayed in Figures 5 and 6. Lastly, the number of four designations authorized by nation is displayed in figure 7.

The relative responsiveness of supply and demand is one question that has to be understood in this matter (Mérel and Sexton 2012). A population of food products, like figure 6, may be defined for case-study research, and one product type might be selected—cheese or meat products are probably the most straightforward. A representative sample might be produced by stratifying the data in figures 4 and 7. Lastly, have a look at the procedure depicted in figure 8 to acquire information on the yearly supply. For several of these foods, there are collectively owned food associations with members and information available through member association reports.

Researching this subject typically calls for resources for remote data gathering, as those utilized by Sánchez (2008), as well as proficiency in a second language. Numerous research questions will have solutions thanks to this main data gathering. For instance, the responsiveness of supply problem, which might be used to test the hypothesis that the long-run supply curve is totally elastic, could be better informed by the data gathered in figure 8. A demand system can be estimated using retail scanner data as it becomes available, but different data—possibly from a case study—will probably be needed for the supply data.

Global Agricultural Supply and Value Chains

Bellemare and Lim (2018) discuss the literature on contracts using an example of empirical results from Madagascar, while Kuijpers and Swinnen (2016) review the literature on the significant contributions to understanding the welfare effects of global supply and value chains on agricultural producers.² Five governance models are examined by Gereffi, Humphrey, and Sturgeon (2005) in light of contemporary institutional economics. The theory for the application of property rights, transaction costs, and incomplete contracts in value chains is given by Antràs (2016).³ He describes databases used for empirical research including the U.S. Bureau of Customs and Border Protection, U.S. Related Party.

Trade of the U.S. Census Bureau, and direct investment data from the U.S. Bureau of Economic

Analysis. Several difficulties exist in empirically testing the different theories because there is no publicly reported data.

A method for examining firm-level borders and how they have changed over time inside the US, EU, and/or other nations is case-study research. This method could be used to examine the evolution of agricultural global value chains and how they affect sustainability. The process of creating a database of food companies to analyze each of their NAICS segments, manufacturing plant locations, trade data based on the ten-digit harmonized tariff codes, and the typography for governance systems and sustainability policies developed by Gereffi et al. (2005) is shown in Figure 9. The first set of data comes from the SEC's yearly 10-k reports, which have been accessible to publicly traded companies since 1996. The second source of information is the annual summary of major trade publications, which frequently include the address and location of warehouses used for agricultural handling, processing, manufacture, and distribution. The ten-digit Harmonized Tariff Codes' trade statistics can be found in the Foreign Agricultural Trade of the United States (FATUS).

Working backward, the different certification claims made on retail food data are examined in order to obtain the data from Gereffi et al. (2005). The Gereffi et al. (2005) model is used by Boland, Cooper, and White (2016) to illustrate an example for a dairy company thinking about four sustainability options. This covers the kinds of internal activities, audits, certification programs, and behavior guidelines. Internal initiatives include software programs that optimize transportation and logistical functions to reduce miles traveled by trucks. One stakeholder is involved in certification schemes, which include ISO 26000 Social Responsibility and International Organization for Standardization (ISO) standards. Rainforest Alliance, GlobalG.A.P., and organic certification are a few examples of audits. Because they engage multiple stakeholders and communicate a high degree of assurance and trust, codes of conduct are the most sophisticated.

Businesses employ press releases, annual reports, websites, and other publicly accessible data to showcase their usage of these four techniques and their degree of success. Think of classifying every approach for every plant and product category for microlevel analysis. To determine how far back they travel in the supply chain, the length of the chains might then be tracked step-by-step. A system for business-to-business accreditation of sustainable farming methods is called GlobalG.A.P. Customers can compare the 13-digit GlobalG.A.P. number for a variety of fruits and vegetables to the global database. In a similar vein, Child Labor Free is a code of conduct approach that involves several companies and supply chain stakeholders.

By using these data, one may learn about the global supply chain, the duration of sustainability initiatives upstream into production, the number of players involved, and how they have evolved over time. Then, each supply chain for every company in an NAICS section might be described using the five governance typographies developed by Gereffi et al. (2005). Whether governance systems have actually grown more complex as proposed by new institutional economics is one hypothesis to explore. Although the answer may be true, this theory is not supported by any actual facts.

Summary

Although case-study research is a crucial methodological technique in the social sciences, doctoral programs in applied economics and agriculture rarely teach it. Boland and Crespi (2010) point out that doctoral programs in agricultural and applied economics are likely to become more specialized (Boland 2009) and smaller. Harvard's doctorate in business economics, which is separate from its doctorates in management and economics, serves as one example. In addition to microeconomic and macroeconomic studies, the business economics degree requires field courses in company history, industrial organization, and related topics. Students learn how to conduct academic research in these field courses, which frequently include case-study methodology, in-industry analyses, and other topics related to industrial organization. Among the publications are *Economic Geography* and *The Business History Review*.

No current doctoral program in agriculture and applied economics has this prerequisite. It would appear that publication chances in these journal venues would be in line with the academic units' aim given the historical departments of agricultural economics' steady shift to more widely applied economic issues. A course on case-study research methods would fall under this category. An interdisciplinary graduate course taught for social scientists (agricultural education, leadership, communication, public affairs, and sociology) and physical scientists (agriculture and food) would be a logical place to teach case-study research. In these courses, master's level students still frequently take a methodology class.⁴ In such a course, this may be covered in a module lasting three to five weeks. A doctoral program looking to work with graduate students in case-study research would benefit from both a course in case-study research methodology and an agribusiness history course, like the one taught by Professor Wayne Broehl, Jr. at the Tuck School, Dartmouth College.⁵

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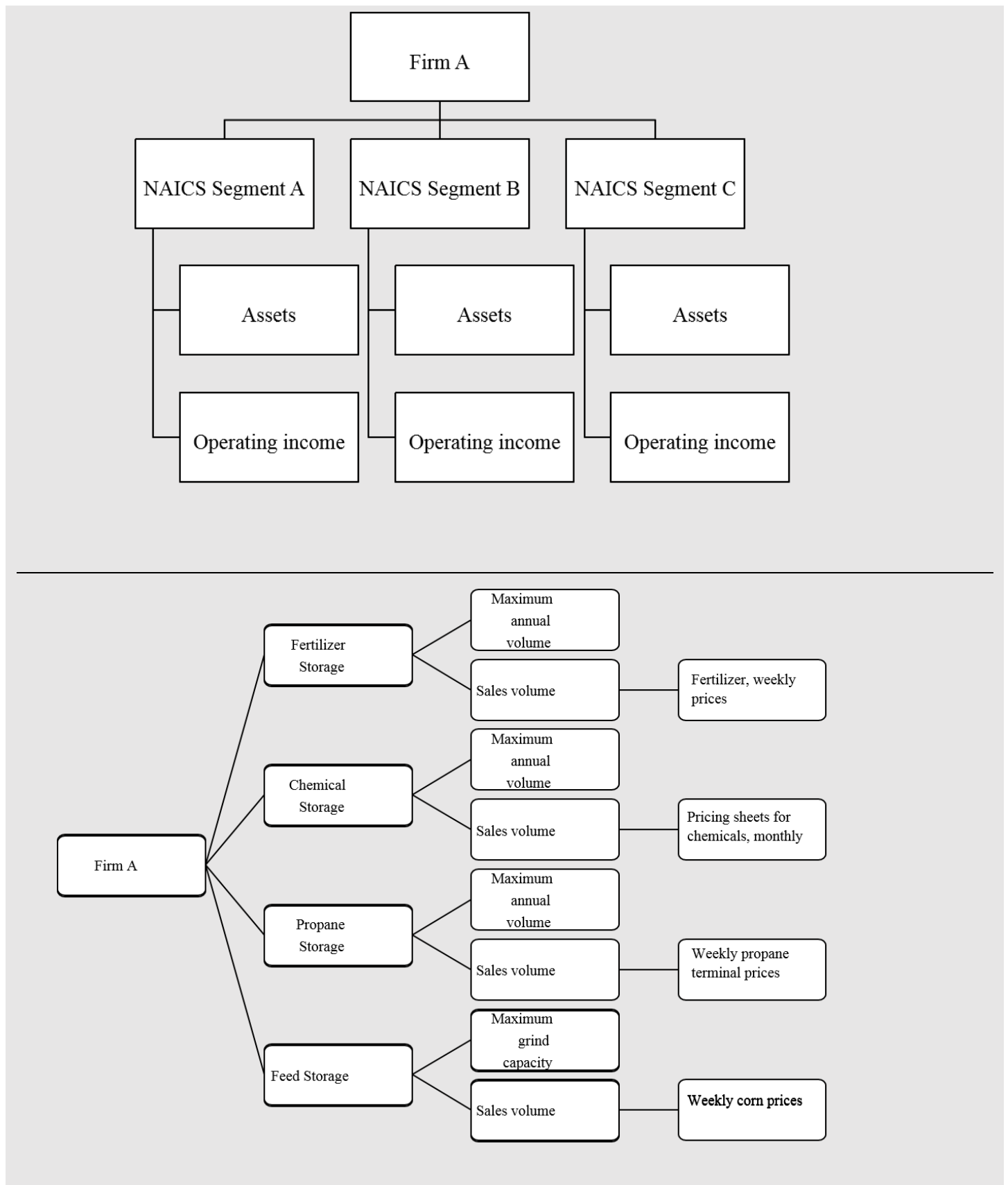


Figure 2: Overview of Business Units for a Farm Input Supplier

