Does Organizational Culture Serve as an Antecedent to the Dynamic Capability of an Automated Customer Relationship System as an Example of a Big Data Analytics Program in a Firm? A Case Study

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A dissertation submitted to the Bisk College of Business at Florida Institute of Technology in partial fulfillment of the requirements for the degree of Doctor of Business Administration

Melbourne, Florida

July, 2019
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We the undersigned committee hereby recommend that the attached document be accepted as fulfilling in part of the requirements for the degree of
Doctor of Business Administration

“Does Organizational Culture serve as an Antecedent to the Dynamic Capability of an Automated Customer Relationship System as an Example of a Big Data Analytics Program in a Firm? A Case Study”
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Abstract

Title: Does Organizational Culture serve as an Antecedent to the Dynamic Capability of an Automated Customer Relationship System as an Example of a Big Data Analytics Program in a Firm? A Case Study

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This study seeks to determine if and how organizational culture can be an antecedent to the formation and exploitation of a dynamic capability at the firm level. This proposed study method is a holistic single case study of a privately owned multi-state regional independent insurance agency to determine the relationship between organizational culture and the dynamic capability of an automated customer relationship management system (ACRMS).

The theoretical framework used in this study is dynamic capabilities developed by Teece, Pisano and Shuen (1997) and further modified and refined by Teece (2014). This framework is based on the premise of the ability of the firm to integrate, build, and reconfigure heterogeneous and idiosyncratic capabilities in response to changes in the industry or business environment which can result in a sustained competitive advantage. The results of the case study supported organizational culture serving as an antecedent to dynamic capabilities as proposed by Eisenhardt and Martin (2000) who argued dynamic capabilities are more homogeneous than otherwise
conceptualized, similar to a best practice. In addition there was a supplemental finding of moderate support for the organizational culture in the firm serving as a dynamic capability according to the definition of Teece (2014).

*Keywords*: dynamic capabilities, big data analytics, automated customer relationship management system, organizational culture, leadership, transcendental phenomenological
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List of Abbreviations

ACRMS Automated Customer Relationship Management System
ACRMSE Automated Customer Relationship Management System Existing
ACMRSP Automated Customer Relationship Management System Prospects
BDA Big Data Analytics
CSR Customer Service Representative
CVF Competing Values Framework
EVP Executive Vice President
IIABA Independent Insurance Agents & Brokers of America, Inc.
SCA Sustained Competitive Advantage
VRIN(O) Valuable Rare Inimitable Non-substitutable Organizationally Supported
Acknowledgement

This paper would not have been completed without the guidance and support of my dissertation committee, the faculty and staff at the university, my fellow cohort members, various subject matter experts, and all the people who agreed to be interviewed and participated in this case study.

I thank Dr. Lars Hansen for his continued guidance and encouragement throughout this study. Dr. Hansen helped keep my study focused and his quiet but firm insistence in mentoring me to study, think, analyze data, and to write and speak like an academic after 40 years in the practitioner world were invaluable to my development. Dr. Hansen was able to teach this old dog a new trick.

I also thank Dr. Jignya Patel for her assistance in getting me to look for alternative and less obvious answers to the questions raised during the dissertation process and also her assistance with my writing style. In addition I thank Dr. Christian Sonnenberg for his guidance in improving my academic writing skills. Thank you to Dr. Nicholas Weatherly for his encouragement and assistance in improving my ability to prepare and speak like an academic, a skill which is similar to, yet different from speaking in the practitioner arena.

I also wish to thank the faculty my professors and fellow cohort members in the DBA program for pushing me to think beyond what I perceived as “the obvious answer” and to defend my conclusions with empirical data and not anecdotal evidence. Thank you all for the fun discussions, debates and arguments about
business and many other subjects. You all helped open my eyes and not be so set in my way of thinking. A special thanks to Taylor Weaver for keeping me on pace and on top of every step in my academic journey.

I also thank my staff at my two businesses for picking up the slack for me while I was busy focusing on learning, researching writing class papers, taking time to study for and take comps and last but not least the dissertation proposal, research and writing processes.

In conclusion, I extend sincere thanks to all the participants who agreed to be interviewed and provided valuable input and data to allow me to complete this research process.
This dissertation is dedicated to my children Nicholas and Ciara and to my mom Cathy. Thank you all for your support and encouragement during this process. The last 3 years have been a long and winding journey of ups and downs and all of your encouragement to keep me on task has led to the conclusion of this chapter of my academic journey. I could not have done it without you. I also dedicate this in memory of my late father Earl, who instilled in me a love of learning, as well as to ask the question behind the question and also taught me everything I know about running and operating a business. Dad, I miss you each and every day.
Chapter 1: Overview

Introduction

The strategic theoretical framework of dynamic capabilities was developed to describe the ability of the firm to sense opportunities, seize upon those opportunities, and intentionally reconfigure its resources and capabilities to exploit the identified opportunities (Teece, Pisano & Shuen, 1997; Eisenhardt & Martin, 2000; Helfat, Finkelstein, Mitchell, Peteraf, Singh, Teece & Winter, 2007; Zollo & Winter, 2002; Winter, 2003; Helfat & Winter, 2011). Teece et al. (1997) developed the theoretical framework in an effort to explain how a firm can innovate in order to gain a sustained competitive advantage (SCA). Eisenhardt and Martin (2000) countered by theorizing dynamic capabilities are more homogenous than conceptualized by Teece et al. (1997), are more similar to best practices, and any competitive advantage gained is strictly temporary. Helfat et al. (2007), Zollo and Winter (2002), Winter (2003) and Helfat and Winter (2011) all concluded dynamic capabilities are process oriented rather than outcome focused, in other words, the dynamic capability is the ability of a firm to intentionally change its resource base in order to exploit an opportunity regardless of the outcome.

Teece (2014) has expanded the theoretical framework from the original paper he wrote with Pisano and Shuen in 1997. Teece (2014) added firm specific
organizational heritage combined with a management team which possesses the ability to sense and seize opportunities and then reconfigure the capabilities of the firm to exploit the identified opportunities to his model. Teece (2014) also added to his model ordinary capabilities and generic resources of the firm which can be purchased to support the valuable, rare, imperfectly imitable, and non-substitutable resources of the firm (Wernerfelt, 1984; Barney, 1986, 1989, 1991, 1995, & 1996) and idiosyncratic and heterogeneous dynamic capabilities (Teece et al., 1997) both of which are built by the firm. Teece (2014) then conceptualized combining the resources and dynamic capabilities of the firm with good strategy (Rumelt, 2011) which can result in a SCA.

Big data analytics (BDA) has been studied as a dynamic capability in a firm. McAfee and Brynjolfsson (2012), Ransbotham, Kiron, & Prentice (2015), Fosso Wamba, Akter, Edwards, Chopin, & Gnanzou, (2015), Fosso Wamba, Gunasekaran, Akter, Ren, Dubey, & Childe (2017), Ward (2014), Liu (2015), Bhatt and Grover (2005), and Germann, Lilien, Fiedler & Kraus (2014), all discovered firms which use BDA can obtain and maintain a SCA through exploiting the manipulated data to gain market share and operational efficiencies. An automated customer relationship management system (ACRMS) is a specific segment of BDA, focused on developing, building and maintaining relationships with prospective, active and lapsed customers of the firm (Payne & Frow, 2005; Haislip & Richardson, 2017).
Schilke, Hu, & Helfat (2018) in a literature review found organizational culture had been studied as an antecedent of dynamic capabilities in firms in nineteen studies. Although there is no one accepted definition of organizational culture there is a growing consensus it includes the commonly accepted assumptions, beliefs, and values of the members of the firm (Pettigrew, 1979; Schein, 1984; Schneider, 1987; Denison, 1996).

The research topic is to determine if and how organizational culture serves as an antecedent to the continued use of a dynamic capability within a firm. The specific dynamic capability studied is an ACRMS which is a specific type of BDA used by a firm. The research method used in this study is a qualitative transcendental phenomenological (Moustakas, 1994), holistic single case study (Stake, 2006; Yin, 2018).

The firm serving as the case being studied is the central Florida office of a privately owned and operated multi-state regional independent insurance agency based in another large southern state. The firm serving as the case uses technology including an ACRMS throughout its business operations. The firm also has a unique and strong organizational culture which it strongly protects through use of a personality profile which all potential hires are required to complete prior to a job offer being extended and a having corporate psychologist on staff (Orlando Business Journal, 2014).
Background and Rationale of the Study

According to the theoretical framework, dynamic capabilities are “the firm’s ability to integrate, build, and reconfigure internal and external competences to address rapidly changing environments” (Teece et al., 1997, p. 516). When the term dynamic capabilities is deconstructed “dynamic” refers to the ability of the firm to adapt to changes in the industry or environment, and “capabilities” are the strategic initiatives which keep the firm’s competences in sync with its constantly evolving business environment (Teece et al., 1997).

Research on dynamic capabilities has increased in the past decade (Schilke et al., 2018). In their critique of the dynamic capability framework Arend and Bromiley (2009) cited a lack of empirical studies on dynamic capabilities as a weakness which needed to be overcome to test the validity of the dynamic capability framework. Since the publishing of Arend and Bromiley (2009), in separate literature reviews, Eriksson (2014) found 142 studies in various business journals, and Schilke et al. (2018) discovered 345 studies of dynamic capabilities in 51 of the top 100 business journals.

In a study of 330 publicly traded companies in North America, McAfee and Brynjolfsson (2012) discovered firms which actively used BDA in its business processes had superior results to its competition. Haislip and Richardson (2017) described an ACRMS as a segment of BDA which combines technology, strategy,
processes and people, which should lead to greater sales through the storage and
analyzation of data, which in turn could lead to improvements in operational
performance and financial results.

In the early 2000s, 55% of all purchasers of ACRMS were not meeting their expected return on investment (Rigby, Reichheld, & Schefter, 2002). Neil Rackham concurred with Rigby et al. (2002) in the foreword to The Power of Sales Analytics by Zoltners, Sinha and Lorimer (2014) where he stated the majority of users viewed ACRMS as a poor investment in 2000. Improvements have been made in the years since the early research on ACRMS with the result being an average return on investment of over $8 for every $1 of investment in an ACRMS (Nucleus Research, 2014).

Ismail (2018) reported ACRMS finished 2017 as the largest ($40 billion in annual sales) and the fastest growing (16% annual growth rate) segment of the software market. Taylor (2019) stated ACRMS annual sales are expected to double by 2025. Hollar (2015) in a report for Capterra cited a survey of ACRMS users which showed improvements in customer satisfaction and retention from the use of an ACRMS. Taylor (2019) in a report for superoffice.com stated 71% of all businesses and over 90% of businesses with greater than 11 employees now use an ACRMS. Mela and Moorman (2018) in a survey of marketing executives reported organizations plan to more than double their sales and marketing analytics budgets over the next three years.
Sales consultants also report increases in the productivity and goal accomplishment of sales people can be achieved through the use of an ACRMS. Nucleus Research (2015) reported a shortening of the sales cycle between 8 to 14% for sales people who use an ACRMS. Leung (2013) in a blog posting for Salesforce reported proper use of an ACRMS by sales people can lead to increases in sales by 29%. According to Aberdeen Group (2012), 24% more sales people exceed their individual sales goal when given mobile access to an ACRMS.

In spite of the above statistics on usage and improved returns on investment of ACRMS over 20% of sales people do not know what an ACRMS is and over 40% of sales people use other systems to track their sales contacts even if their employer provides an ACRMS (Howard, 2016). Carroll (2015) stated 79% of leads fail to convert to sales without an ACRMS.

**Statement of the Problem**

Sales as well as customer satisfaction and retention have been shown to increase through use of an ACRMS (Haislip & Richardson, 2017; Wang, Hu & Hu, 2013; Rostami, Valmohammadi, & Yousefpoor, 2014; Hassan, Nawaz, Nawaz, & Zafar, 2015; Wang & Feng, 2012). However, only 71% of businesses have implemented and ACRMS (Hollar, 2015) and over 40% of sales people do not use an ACRMS even if provided one by their employer (Howard, 2016). Firms with a
properly implemented and operated ACRMS have been shown to have better sales and operational performance over firms with no formal ACRMS (Aberdeen Group, 2012; Leung, 2013). Understanding the effect of the relationship between organizational culture and the effectiveness of a properly implemented and operated ACRMS might help explain why some sales organizations have superior results to those which do not possess this capability (Haislip & Richardson, 2017; Payne & Frow, 2005).

**Purpose of the Study**

The purpose of this transcendental phenomenological holistic single case study (Moustakas, 1994; Stake, 2006; Yin, 2018) is to examine the relationship between organizational culture and dynamic capabilities. Specifically, this study will examine if organizational culture is an antecedent to the dynamic capability of an ACRMS as a type of BDA program in knowledge based sales and service firms. An ACRMS in and of itself is just a firm resource or ordinary capability (Barney, 1995; Teece, 2014). The ACRMS will not become a dynamic capability until it is installed, the data properly entered, and the system is managed and used properly (Wang et al., 2013). The purpose of an ACRMS is to improve sales, customer satisfaction and retention through the proper use of data input into the system which is then converted into information which in turn is developed into analytics.
Failure of leadership to align the firm’s organizational culture, the sales and marketing strategy and the strategy for ACRMS use can lead to results which are lower than expected (Rigby et al., 2002).

**Nature of the Study**

This study used a transcendental phenomenological holistic single case study method (Moustakas, 1994; Stake, 2006; Yin, 2018) to obtain richly detailed information about the culture of the firm serving as the case. The reason for choosing a transcendental phenomenological form of a case study was to examine the culture of the organization from the lived experiences of the interviewees (Moustakas, 1994). By taking a holistic single case perspective it is possible to examine the organizational culture of the single firm serving as the case in totality instead of by department or group (Stake, 2006; Yin 2018).

The formal interviews were conducted with active employees of the firm and the questions asked were open ended in an attempt to gather data which is deeper in nature as to the why behind the employees answers (Creswell & Poth, 2018). The data was analyzed using the systematic combining method (Dubois & Gadde, 2002) which is similar to the engaged scholarship method (Van de Ven, 2007). This method of data analysis allowed the researcher to go back and forth
between the data and the existing research literature through the use of the abductive reasoning method in an effort to determine the most likely explanation from incomplete data (Dubois & Gadde, 2002).

**Research Question**

Organizational culture has been studied as an antecedent to dynamic capabilities in multi-divisional high tech firms (Song, Lee, & Khanna, 2016); in innovative industries (Bock, Opsahl, George & Gann, 2012); and firms in various industries (Anand, Ward, Tatikonda & Schilling, 2009) with continuous improvement programs. ACRMS has been studied as a firm specific dynamic capability (Trainor, Andzulis, Rapp & Agnihotri, 2014; Wang et al., 2013). ACRMS and organizational culture have been studied in hotels (Rahimi & Gunlu, 2016), quantitatively (Iriana, Buttle, & Ang, 2013; van Bentum & Stone, 2005; Chang, Park & Chaiy, 2010); and by cross case analysis (Curry & Kkolou, 2004). McAfee and Brynjolfsson (2012); Fosso Wamba et al. (2015); and Fosso Wamba et al. (2017) called for the relationship between organizational culture and BDA to be studied. Missing from the literature is a single case study on organizational culture as an antecedent to the implementation and continued use of an ACRMS as a firm specific dynamic capability.
This leads to the primary research question in this study:

*Does organizational culture serve as an antecedent to the dynamic capability of an ACRMS which serves as an example of BDA? The model used as a visual representation of this research is in Appendix A.*

**Significance of the Study**

Examining organizational culture as an antecedent to the dynamic capability of BDA exemplified by an ACRMS helps explain the effectiveness of ACRMS post implementation. Rigby et al. (2002), and MacAfee and Brynjolfsson (2012) postulate the culture of an organization can have an effect on the acceptance of and continued use of technology and automation systems. This study builds on previous studies of organizational culture as an antecedent of a dynamic capability of Anand et al. (2009), Bock et al. (2012), and Song et al. (2016) all of whom studied organizational culture as an antecedent to dynamic capabilities in large firms, through the study of a small knowledge based sales and service organization in a highly regulated financial services industry. This study also extends quantitative studies of organizational culture and ACRMS (Rahimi & Gunlu, 2016; Iriana et al., 2013; van Bentum & Stone, 2005; Chang et al., 2010) and qualitative cross-case study (Curry & Kkolou, 2004) through use of a qualitative transcendental phenomenological holistic single case study as a research method.
Definition of Terms

There are some terms which are peculiar to the fields of study of organizational culture, dynamic capabilities, big data analytics, and automated customer relationship management systems. The following terms will be defined as follows for purposes of this study.

5 V’s of Big Data Analytics: Fosso Wamba, Gunasekaran, Akter, Ren, Dubey, and Childe (2017) defined the five V’s of big data analytics as value, variety, velocity, veracity, and volume. Value is defined as the economic benefit derived from exploiting the data. Variety is described as the number of different platforms from which the data is gathered and analyzed. Velocity is the speed at which the data is processed and analyzed. Veracity is defined as the accuracy of the data. Volume is described as the raw amount of the data.

Antecedents of Dynamic Capabilities: Antecedents of dynamic capabilities are factors which encourage the development and continued use of a dynamic capability (Schilke et al., 2018).

Asset Orchestration: Teece et al. (1997) defined asset orchestration as the organizational and managerial processes specifically coordinating/integrating, learning and reconfiguring as core elements of dynamic capabilities. These processes are a subset of processes which support sensing opportunities, seizing upon the opportunities and reconfiguring company resources to exploit the identified and acted upon opportunities.
Automated Customer Relationship Management System

(ACRMS): Payne and Frow (2005) describe automated customer relationship management systems as information technology tied together with the marketing strategy of the firm to gather and use data and information about actual and prospective customers to cocreate value with the customers through increased sales. Haislip and Richardson (2017) built upon Payne and Frow (2005) by describing an ACRMS as a cross-functional integration of processes, people, operations and marketing capabilities which are enabled through information, technology, and applications.

**Best Practices:** Eisenhardt and Martin (2000) define best practices as dynamic capabilities which have homogenous characteristics with some idiosyncratic characteristics which can lead to a temporary competitive advantage.

**Big Data Analytics (BDA):** McAfee and Brynjolfsson (2012) determined big data analytics is the process of extracting valuable information from data the firm possesses and then using the information to gain a competitive advantage.

**Cognitive Management Capabilities:** Helfat and Peteraf (2015) defined cognitive management capabilities as the ability of management to acquire and process information and use the information to make decisions which lead and guide the business.
Competing Values Framework: Quinn and Rohrbaugh (1983) defined the competing values framework as a means of identifying four different organizational cultures depending on whether the firm values flexibility or stability, and whether the focus is internal or external. When the firm is focused inward and values flexibility it is identified as a clan or teamwork culture. Adhocracy also known as a culture of innovation is when the firm is flexible and externally focused. A firm possesses a market or effectiveness in the marketplace culture when it is externally focused and values stability. A culture of hierarchy also called efficient organizational culture exists when the firm is focused inward and stability is preferred.

Competitive Advantage: Prahalad and Hamel (1990) defined competitive advantage as when the firm outperforms the competition usually after the firm gains a distinctive core competency.

Competitive Strategy: Porter (1996) defined competitive strategy as “deliberately choosing a different set of activities to deliver a unique mix of value” (p. 64).

Cospecialized Assets: Teece (2009) defined cospecialized assets as a particular class of assets where the value of an asset is a function of its use in conjunction with other particular assets. With cospecialization joint use of the resources
enhances the value of the combined resources to greater than the value of the sum of each asset individually.

**Dynamic Capability:** A dynamic capability is defined as “the firm’s ability to integrate, build, and reconfigure internal and external competences to address rapidly changing environments” (Teece et al. 1997, p. 516). By deconstructing the term Teece et al. (1997) defined dynamic as the changing environment and the firm’s ability to adapt to the environmental changes; and capability as the strategic initiatives which the firm uses to respond to the changes in its environment.

**Dynamic Managerial Capabilities:** Adner and Helfat (2003) defined dynamic managerial capabilities as “the capabilities with which managers build, integrate, and reconfigure organizational resources and competences” (p. 1012). These capabilities are managerial human capital or management skills, managerial social capital or the ability to leverage relationships to gain resources, and managerial cognition or the belief system used to make management decisions.

**Hypercompetition:** In the fast-paced world of current business, hypercompetition refers to an environment in which competitive advantages are rapidly created and eroded in the face of aggressive competition. Competition on timing and knowledge has intensified, resulting in compressed product design and life cycles (D’Aveni, 1994).
**Innovation:** Schumpeter (1934) posited innovation is developing a new or improved product or service, and stated a firm innovates in order to gain a competitive advantage thus moving the market out of equilibrium. Schumpeter (1942) described innovation as creative destruction whereby innovation and competition are inextricably linked with each causing and resulting in the other.

**Knowledge Based Company:** Grant (1996) defined this as a firm which does not sell a tangible product but sells and supplies special knowledge about specific services or products desired by its customers.

**Management Entrepreneurial Attitude:** Zahra, Sapienza & Davidsson (2006) defined management entrepreneurial attitude as the ability of some new and established companies to continuously create, define, discover and exploit entrepreneurial opportunities defined as the ability to reconfigure a firm’s resources and routines in the manner envisioned and deemed appropriate by its principal decision-maker(s).

**Microfoundations of Dynamic Capabilities:** The microfoundations upon which dynamic capabilities are built are sensing, seizing and reconfiguring capabilities (Teece, 2009). Teece, (2009) states the microfoundations of dynamic capabilities are the manner in which the organization senses from among the available opportunities, seizes on the opportunities which it can best exploit and then reconfigures itself to take advantage of the identified opportunity. Therefore,
Teece (2009) posited microfoundations apply at the firm level, however; they can also take place at the individual level (Gavetti, 2005) and the managerial level (Helfat & Peteraf, 2015). Adner and Helfat (2003) stated dynamic managerial capabilities of managerial human and social capital and cognition can also contribute to the microfoundations of dynamic capabilities.

**Ordinary Capabilities:** Zollo and Winter (2002) and Helfat and Peteraf (2003) named them organizational routines which are stable over time. Winter (2003) conceptualized ordinary or zero-level capabilities as those capabilities which enable the firm to survive and make a profit.

**Organizational Ambidexterity:** Eisenhardt, Furr & Bingham (2010) state the problem to overcome in dynamic markets is the balancing act between efficiency and flexibility otherwise known as organizational ambidexterity (Tushman & O’Reilly, 1996; Lubatkin, Simsek, Ling & Veiga, 2006; O’Reilly & Tushman, 2004, and 2008; Raisch & Birkinshaw, 2008; Raisch, Birkinshaw, Probst & Tushman, 2009).

**Organizational Climate:** Organizational climate refers to the shared perceptions of employees and the meaning they attach to the policies, practices, and procedures they experience in their workplace, as well as to the behaviors they observe being rewarded, supported, and expected (Schneider et al., 2013).
**Organizational Culture:** Denison (1996) defined organizational culture as “the deep structure of organizations, which is rooted in the values, beliefs, and assumptions held by organizational members” (p. 624).

**Organizational Learning:** Argote and Miron-Spektor (2011) define organizational learning as a change in the organization which occurs as the organization acquires experience.

**Resources:** Penrose (1959), stated resources are both tangible and intangible which are utilized by the firm to fuel growth. Wernerfelt (1984) further clarified by stating resources are any strength or weakness of a firm. Barney (1991) built on previous research by conceptualizing firm resources as valuable, rare, imperfectly imitable and nonsubstitutable and can lead to a sustained competitive advantage. Barney (1995) extended the research by clarifying resources “include all of the financial, physical, human and organizational assets used by a firm to develop, manufacture, and deliver products or services to its customers” (p. 50).

**Strategy:** Porter (1996) stated strategy is a deliberate set of actions which management of the firm decides to take in order to achieve its mission and goals.

**Sustained Competitive Advantage (SCA):** A firm develops a sustained competitive advantage when it outperforms its competitors over time (Porter, 1985). Barney (1991) stated a sustained competitive advantage is not determined
by time but by the period in which the firm possesses idiosyncratic resources which have yet to be imitated.

**Assumptions and Limitations of the Study**

The focus of this research is to determine if and how organizational culture serves as an antecedent to dynamic capabilities and specifically to the dynamic capability of BDA as exemplified by an ACRMS. An assumption of this study is it was conducted post implementation of the ACRMS. Thus the study focuses on the ongoing use of the dynamic capability of an ACRMS in an organization and how it is affected by the culture within the organization. Another assumption of this study is organizational culture can be separated from other items which could have an antecedent relationship with dynamic capabilities, and organizational culture can be measured and identified in this case study through the interviews of employees and top management who work in the business serving as the case study. This study allowed for follow up interviews to clarify ambiguities and inconsistencies as well as in instances where the initial interviews did not reveal data which measured the culture of the organization.

Senior management commitment to the implementation and continued use of the ACRMS is assumed based upon its decision to fund the costs of the system and the time invested to make and implement their decision; however, it is beyond
the scope of this study. Another limitation of this study is the implementation of the ACRMS since it is beyond the scope of this study. The specific hardware, software, and functionality features and benefits of the ACRMS are also beyond the scope of this study.

A limitation of this study is the chosen sample population. The sample population chosen is an independent insurance agency located in central Florida. This is a single case study thus the data from this study only applies to the specific business in the specific geographical area which is being studied and is not generalizable. However, it can be used to expand and generalize the theory of organizational culture as an antecedent to dynamic capabilities (Yin, 2018). In addition case studies can be used to test hypotheses and the combination of the practical knowledge gained from a study of the business serving as the subject of the case study combined with the theoretical knowledge from the research literature may prove valuable (Flyvbjerg, 2006).

**Organization of the Remainder of the Study**

The manner in which the balance of this study will be presented is listed below. Chapter 2 explores the current and seminal literature including studies, books, research papers, and theoretical papers. These studies, papers and books are on the topics of dynamic capabilities including its microfoundations, and
antecedents, BDA in the form of an ACRMS as a concept and as a dynamic capability, sustained competitive advantage which is the ultimate outcome of dynamic capabilities, and organizational culture. The literature review also examines the relationships between organizational culture and dynamic capabilities, BDA, and ACRMS.

Chapter 3 outlines the research method. This chapter starts with the philosophical worldview of the researcher, then discusses the positionality of the researcher, followed by the research design and approach. Then this chapter discusses the population which was sampled and how the participants were chosen for the study, followed by the instruments used in the study, then the procedures which were followed in the study, followed by the data collection and analysis process. Then this chapter discusses the ethical considerations, the validation procedures and generalizability of the study. This chapter closes with a profile of the firm serving as the case.

Chapter 4 discusses the research findings, synthesizes and summarizes the data and closes with the contribution to applied practice. Chapter 5 examines the contribution to theoretical knowledge, then discusses the implications of the study and closes with recommendations.

Following Chapter 5 is the section of references used to support the research. Next is the appendix section. The appendices are a visual model of the research study, a solicitation flyer, and then an interview sign-up sheet used to
solicit volunteers to be interviewed at the business serving as the case to be studied. Next, there is an informed consent and demographic form which was sent to volunteers prior to their scheduled interview. Following this is the interview protocols which were used depending on whether the interviewee is an employee or a senior manager.
Chapter 2
Literature Review

Overview

The purpose of this chapter is to provide an exploration, examination, and explanation of the extant literature as it relates to the theoretical strategic framework of dynamic capabilities in order to gain an understanding of the relationship between organizational culture as an antecedent to the continued use of a dynamic capability. For the purpose of this study we will use an ACRMS as a specific type of a firm specific BDA capability to serve as an example of a dynamic capability.

This chapter will first examine the existing research literature on dynamic capabilities including areas of commonalities and differences among the many researchers concerning the framework, as well as the theories upon which dynamic capabilities are built, plus the microfoundations of the dynamic capability framework, the antecedents of dynamic capabilities, and finally BDA and ACRMS as examples of a dynamic capability. It will then examine sustained competitive advantage which is the ultimate goal of a dynamic capability (Teece et al., 1997; Teece, 2014). This chapter will then review the literature on organizational culture
to gain an understanding of how organizational culture can serve as an antecedent
to dynamic capabilities. This chapter will then close with an exploration of the
current literature concerning the relationship between organizational culture and
BDA and then ACRMS.

What are Dynamic Capabilities?

The Beginning

The strategic theoretical framework of dynamic capabilities was developed
to determine how a firm obtains and maintains a sustained competitive advantage
in a constantly evolving business environment (Teece et al., 1997). Dynamic
capabilities are defined as “the firm’s ability to integrate, build, and reconfigure
internal and external competences to address rapidly changing environments (Teece
et al., 1997, p. 516).” Dynamic refers to the ability of the firm to adapt to changes
in the industry or environment (Teece et al., 1997). Capabilities are the strategic
initiatives which keep the firm’s competences in sync with its constantly evolving
business environment (Teece et al., 1997).

Teece et al. (1997) theorized a firm can gain a competitive advantage
through reconfiguring its capabilities through the combination of its processes
(management and operational), resource positions and strategic paths available to
the firm. Figure 1 shows a visual representation of the model prescribed by Teece et al. (1997)

![Diagram of Dynamic Capabilities Framework](image)

**Figure 1.** This figure shows a model of the dynamic capabilities framework as proposed by Teece et al. (1997) and is adapted from Arend & Bromiley (2009, p.79).

**Building Blocks of Dynamic Capabilities**

The theory of dynamic capabilities attempts to explain how a firm can gain and maintain a sustained competitive advantage in a changing business environment of (Teece et al. 1997). In order to understand the underpinnings of the dynamic capabilities theoretical framework it is helpful to examine the theoretical foundations upon which it is based. Teece (2009) stated the idea for the theoretical framework of dynamic capabilities was built on the previous research, models and frameworks of Schumpeter (1934), Penrose (1959), Williamson (1975, 1985),

Teece et al. (1997) included the innovation process of Schumpeter (1934, 1942) in the theoretical framework of dynamic capabilities by recognizing innovation as being both a possible cause and a possible result of a firm specific dynamic capability. Schumpeter (1934) credited the entrepreneur in a capitalist system with innovation through possessing asymmetrical information to move markets out of equilibrium and gain a competitive advantage, while Kirzner (1973) disagreed and stated entrepreneurial action leads the market back to equilibrium. Teece et al. (1997) agreed with Schumpeter (1934) by positing a firm innovates on its own or in response to the competition in order to gain a competitive advantage thus moving the market out of equilibrium which could be the result of an idiosyncratic dynamic capability.

Schumpeter (1942) described innovation as creative destruction whereby innovation and competition are inextricably linked with each causing and resulting in the other. Schumpeter (1942) determined capitalistic markets are always dynamic and “never is but never can be stationary” (p.82). Teece et al. (1997) built upon the above statement of Schumpeter (1942), when they stated a firm innovates in response to moves by its competitors which occur in dynamic markets thus the innovation can serve as a dynamic capability.
Penrose (1959) stated firms are a bundle of internal resources both tangible and intangible which are utilized to fuel growth. Wernerfelt (1984) stated resources are any strength or weakness of a firm. Barney (1991) stated firm resources which are valuable, rare, imperfectly imitable and nonsubstitutable can lead to a sustained competitive advantage. Organizational support was added to the list later (Barney, 1995). Teece et al. (1997) extended Penrose (1959), Wernerfelt (1984) and Barney (1991, 1995), by stating dynamic capabilities include reconfiguring firm assets or resources in a dynamic environment to gain a competitive advantage.

Penrose (1959) determined the capability of management limits the growth rate of the firm. Teece et al. (1997), as well as Adner and Helfat (2003) and Helfat and Peteraf (2015), extend Penrose (1959) by concluding managerial capabilities can be a dynamic capability when management has the cognitive ability to sense and seize opportunities and then possesses the managerial and leadership ability to reconfigure firm resources to take advantage of the opportunity.

Teece et al. (1997) determined transaction costs (Coase, 1937; Williamson, 1975, 1985) tie in with dynamic capabilities through the market for capabilities or “dynamic transaction costs” (Langlois, 1992). The relationship of transaction costs and dynamic capabilities has to do with how tradable the capability is in the marketplace (Teece, 2009). Teece et al. (1997) extend transaction costs to thinly traded capability markets by adding cospecialized assets which arise when capabilities are combined due to shortcomings in the market price system.
Internalizing the cospecialized assets eliminates the transaction cost of governance or monitoring (Teece, 2009).

Cyert and March (1963) built their behavioral theory of the firm around the concept of the firm being an alliance of constituencies who join together to accomplish common objectives. The theoretical framework of dynamic capabilities (Teece et al., 1997) and the behavioral theory of the firm (Cyert & March, 1963) both concur firms are heterogeneous. (Teece, Pearce & Boerner, 2002) and Teece et al. (1997) determined it is a dynamic capability of a firm when it reconfigures its capabilities through the process of coordination and adaption which extends the behavioral theory of the firm (Cyert & March, 1963).

Teece et al. (1997) built on Rumelt (1984) by recognizing and determining a sustained competitive advantage can be maintained through the firm possessing, utilizing, and exploiting isolating mechanisms which can withstand the forces of competition thus serving as a dynamic capability. Teece et al. (1997) also stated when a firm constantly senses, seizes and reconfigures its resources and capabilities it can lead to innovation which can be a dynamic capability, in order to meet the demands of the marketplace and maintain its isolating mechanisms thus leading to a sustained competitive advantage.

Nelson and Winter (1982) stated routines are processes which give known outcomes and also pointed out some routines are tacit which make them difficult for other firms to replicate, which can serve as an isolating mechanism (Rumelt,
Teece et al. (1997) deduced routines can dynamically change as the firm senses opportunity, seizes upon the opportunity and reconfigures its capabilities in response to an opportunity. Teece (2014) further clarified routines as generic or ordinary capabilities which are homogenous and bought by the firm which support the business and dynamic capabilities which are idiosyncratic and can lead to a sustained competitive advantage.

Teece (1982) stated firms can diversify in product and service mix based on its unique set of capabilities. Teece and Pisano (1994) wrote dynamic capabilities are developed incrementally. Teece et al. (1997) expanded the earlier writings by determining the strategic value of dynamic capabilities to the firm, which is to develop a sustained competitive advantage.

An Alternative Perspective

Eisenhardt and Martin (2000) disagreed with Teece et al. (1997) about the definition and application of dynamic capabilities. Eisenhardt and Martin (2000) defined dynamic capabilities as “The firm’s processes that use resources—specifically the processes to integrate, reconfigure, gain and release resources—to match and even create market change. Dynamic capabilities thus are the organizational and strategic routines by which firms achieve new resource configurations as markets emerge, collide, split, evolve, and die” (p. 1107).
Eisenhardt and Martin (2000) inferred dynamic capabilities are similar to best practices.

Eisenhardt and Martin (2000) stated when a firm is in a more stable market then dynamic capabilities are routines similar to Nelson and Winter (1982), which lead to consistent results through established and well thought out practices. Dynamic capabilities in highly dynamic markets are experimental and idiosyncratic and the results may vary (Eisenhardt and Martin, 2000). Another important difference between Eisenhardt and Martin (2000) and Teece et al. (1997) has to do with sustained competitive advantage. Eisenhardt and Martin (2000) stated dynamic capabilities are more homogenous than previously conceptualized and can only lead to a temporary competitive advantage whereas Teece et al. (1997) stated dynamic capabilities are heterogeneous and can lead to a sustained competitive advantage. Figure 2 shows a representation of the Eisenhardt and Martin (2000) conceptualization of dynamic capabilities.
Figure 2. This figure shows a model of the dynamic capabilities framework as conceptualized by Eisenhardt and Martin (2000) and is adapted from Arend & Bromiley (2009, p.79).

Critique of Dynamic Capability Framework

In their critique of the dynamic capability framework Arend and Bromiley (2009) disagreed with Teece et al. (1997) by stating the ability to respond dynamically by creating new capabilities in the firm are dynamic capabilities regardless of whether or not a sustained competitive advantage is achieved. Arend and Bromiley (2009) also disagreed with Eisenhardt and Martin (2000) when they posited capabilities are capabilities regardless of the stability or dynamism of the business environment. In other words Arend and Bromiley (2009) stated the ability to create a dynamic capability is a dynamic capability regardless of the outcome or the conditions of the business environment.
**Evolution of Dynamic Capability Research**

Zollo and Winter (2002), Winter (2003) and Helfat and Peteraf (2003) all determined there are two levels of capabilities. Zollo and Winter (2002) and Helfat and Peteraf (2003) named them organizational routines which are stable over time and dynamic capabilities which are adaptable and change over time in reaction to changes in the marketplace. Winter (2003) conceptualized ordinary or zero-level capabilities as those capabilities which enable the firm to survive and make a profit, versus first order or dynamic capabilities which deal with change and result in innovation of products or processes and tend to be more expensive since these capabilities need to be in the firm perpetually.

Zollo and Winter (2002) determined firms develop dynamic capabilities through organizational learning while Helfat and Peteraf (2003) stated dynamic capabilities evolve over time in an organization. Winter (2003) brought ad hoc problem solving into the dynamic capabilities discussion when he posited firms can change and innovate without dynamic capabilities through ad hoc problem solving which he defined as “…not routine; in particular, not highly patterned and not repetitious” (p. 992-993). Winter (2003) stated ad hoc problem solving is a less expensive way to change and the ad hoc process disappears after the change is made and does not need to reappear until the next time a change is needed. Winter (2003) further stated in the long run it can be more cost effective for the firm to not
use ad hoc problem solving when it makes a long term commitment and investment in maintaining and exploiting its idiosyncratic dynamic capabilities.

Collis (1994) in a response to a working paper draft of Teece et al. (1997), agreed with Zollo and Winter (2002), Winter (2003) and Helfat and Peteraf (2003) by determining there were two levels of capabilities. Collis (1994) named these organizational capabilities which are imbedded in the firm’s routines, and higher level (or meta-capabilities) in which path dependencies are defeated. Collis (1994) stated static capabilities can be defeated by firms possessing dynamic capabilities which could result in a sustained competitive advantage. Collis (1994) described what he called meta-capabilities as “the capability that wins tomorrow is the capability to develop the capability to develop the capability that innovates faster (or better) and so on” (p. 147). Collis (1994) ties in with and combines Schumpeter (1942) who determined markets are never stationary and Teece et al. (1997) with dynamic capabilities which must continually evolve and be reconfigured to obtain and maintain a sustained competitive advantage.

Danneels (2002) stated there are three levels of capabilities or competences in a firm. First-level competences or capabilities are the basic operational parts which the firm uses to operate (Danneels, 2002). The next level is defined as integrative competences or capabilities which is the ability of the firm to synthesize first order competences or capabilities. The highest level or second order capabilities (Danneels, 2002) described as the ability of the firm to learn and build
new competences or capabilities which ties in with Collis (1994) when he stated as capabilities constantly build upon themselves they become more valuable.


Helfat et al. (2007) stated dynamic capabilities are a strategic and deliberate extension or modification of an organization’s resources in response to changes in the business environment. Arend and Bromiley (2009) agreed with Helfat et al. (2007) by eliminating the result of the realignment of resources by determining the ability to change and adapt the capabilities is the dynamic capability.

**Introducing Microfoundations to Dynamic Capability Theory**

Teece (2009) introduced the microfoundations of sensing, seizing and reconfiguring capabilities to the dynamic capability framework. Teece (2009) stated the microfoundations of dynamic capabilities are the manner in which the organization senses from among the available opportunities, seizes on the
opportunities which it can best exploit and then reconfigures itself to take advantage of the opportunity. Therefore, Teece (2009) posited microfoundations apply at the firm level, however; they can also take place at the individual level (Gavetti, 2005) and the managerial level (Helfat & Peteraf, 2015). Adner and Helfat (2003) stated dynamic managerial capabilities composed of managerial human and social capital and cognition can also contribute to the microfoundations of dynamic capabilities. Teece (2009) did agree managerial competencies especially cognitive abilities can be part of dynamic capabilities microfoundations.

Sensing is how a firm examines its industry and/or the general business environment to determine if there are any business opportunities the firm wants to pursue (Teece, 2009). Sensing is accomplished by the firm examining different opportunities, using information and considering competitors and regulatory bodies to make the best decision to optimize the chances of obtaining a sustained competitive advantage (Teece, 2009). Teece et al. (1997) stated sensing opportunities are more likely to be recognized by organizations which are more decentralized.

The sensing dynamic capability at the individual managerial level is in the cognitive abilities of managers (Helfat & Peteraf, 2015). Cognitive ability is described as knowing and thinking through mental activities and structures (Helfat & Peteraf, 2015). Denrell, Fang and Winter (2003) determined the ability to perceive an opportunity before it exists is a dynamic capability. Helfat and Peteraf
describe perception in the sensing process as the ability to determine, organize, and interpret the valuable information from among all the available information.

Seizing is the process of determining how best to capitalize on the opportunity once it is identified during the sensing process (Teece, 2009). To accomplish the seizing process the firm has to determine the investment it is willing to make, design the best strategic option to exploit the opportunity, implement the decision, and also possess the leadership to convince all affected stakeholders to participate (Teece, 2009). Helfat and Peteraf (2015) determined the seizing microfoundation also operates at the individual managerial level through cognitively solving problems. Once an opportunity is sensed by senior management they use reasoning and logic to determine which opportunities should be invested in or seized by the firm (Helfat & Peteraf, 2015). Peteraf and Reed (2007) stated managers should only seize on opportunities which fit the firm’s overall business strategy.

Once the organization senses and then seizes on an opportunity it will need to reconfigure its competences or capabilities to be able to capitalize on the opportunity (Teece, 2009). A firm will either buy or build the necessary competence to accomplish reconfiguring its competences or capabilities to successfully obtain a competitive advantage (Helfat & Peteraf, 2003). Innovation can be a part of the capability reconfiguring process (Teece, 2009).
Helfat et al. (2007) stated asset orchestration carried out by senior management using their cognitive abilities of learning and reasoning is a key part of the reconfiguration of competencies from an individual managerial level. Senior management might have to use its communication and persuasive abilities should those affected by the reconfiguration of capabilities of the firm become a barrier to successful implementation through active and passive resistance (Helfat & Peteraf, 2015; Teece, 2009).

In opposition to Teece (2009), Eisenhardt et al. (2010) surmised the microfoundations are more structural in nature. Eisenhardt et al. (2010,) defined microfoundations as “…the underlying individual-level and group-level actions that shape strategy, organization, and, more broadly, dynamic capabilities, and lead to the emergence of superior organization-level performance” (p. 1263). Eisenhardt et al. (2010) state the problem to overcome in dynamic markets is the balancing act between efficiency and flexibility otherwise known as organizational ambidexterity (Tushman & O’Reilly, 1996; Lubatkin et al. 2006; O’Reilly & Tushman, 2004, 2008; Raisch & Birkinshaw, 2008; Raisch et al., 2009). Eisenhardt et al. (2010) breaks the microfoundations down into structure to support ambidexterity, the organizational environment where efficiencies are sought in more stable times and flexibility which is supported in more dynamic times, and management cognition to provide balance, order and stability.
Dynamic Capabilities: A Reconceptualization

Teece (2014) disagreed with Eisenhardt and Martin (2000) reconceptualization of dynamic capabilities. Eisenhardt and Martin (2000) stated dynamic capabilities are higher order routines with which Teece (2014) disagrees strongly. Teece (2014) posited when the firm’s management senses, seizes and transforms it resources into dynamic capabilities and combines it with VRINO resources (Barney, 1991), both of which are built and idiosyncratic to the firm. Teece (2014) further stated these are in turn supported by homogeneous lower level ordinary capabilities and generic resources which can be bought on the open market and combined with good strategy (Rumelt, 2011) which can lead to a sustained competitive advantage.

However, Teece (2014) did agree with Eisenhardt and Martin (2000), Zollo and Winter (2002), Winter (2003) and Helfat and Peteraf (2003), when he stated capabilities should be split into ordinary and dynamic. Teece (2014) stated ordinary capabilities can be made or purchased on the open market and are used to perform the work in the most efficient manner, whereas dynamic capabilities are idiosyncratic and innovative and are usually built by the firm which possesses the capability and are used to complete the work in the most effective manner. Figure 3 shows the conceptualization of the framework as developed by Teece (2014)
Figure 3. This figure shows a model of the most recent conceptualization of the dynamic capabilities framework by Teece (2014). This figure was adapted from Teece (2014, p.334).

Antecedents to Dynamic Capabilities

Antecedents to dynamic capabilities are factors which result in the formation and ongoing exploitation of a dynamic capability (Schilke, et al., 2018; Eriksson, 2014). In a literature review from the year 2008 forward Schilke et al. (2018) identified 190 studies on antecedents to dynamic capabilities, of which 19 dealt with organizational culture, in the top 100 business journals. A listing of the journals with five or more articles on dynamic capabilities reviewed by Schilke et al. (2018) is in Table 1. In her literature review of 142 articles, Eriksson (2014)
found 67 studies dealing with antecedents to dynamic capabilities. A listing of all articles reviewed by Eriksson (2014) is in Table 2.

Antecedents to dynamic capabilities are either internal to the firm at either the firm level such as resource base or the individual level such as leadership, or external to the firm such as the business environment (Schilke et al., 2018). Organizational culture is considered to be an internal firm level antecedent (Schilke et al., 2018). The ability to successfully develop, imbue throughout the firm and build organizational culture would be an individual level antecedent (Schilke et al., 2018).
### Table 1

Schilke, Hu and Helfat (2018)
List of Covered Journals with Five or More Identified Articles
Adapted from Schilke et al. (2018) p.394

<table>
<thead>
<tr>
<th>Journal Name</th>
<th>Number of Articles</th>
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<tbody>
<tr>
<td>Strategic Management Journal</td>
<td>36</td>
</tr>
<tr>
<td>British Journal of Management</td>
<td>18</td>
</tr>
<tr>
<td>Industrial Marketing Management</td>
<td>16</td>
</tr>
<tr>
<td>Organization Science</td>
<td>15</td>
</tr>
<tr>
<td>Journal of Product Innovation Management</td>
<td>13</td>
</tr>
<tr>
<td>California Management Review</td>
<td>11</td>
</tr>
<tr>
<td>Journal of Management Studies</td>
<td>11</td>
</tr>
<tr>
<td>R&amp;D Management</td>
<td>10</td>
</tr>
<tr>
<td>Technovation</td>
<td>10</td>
</tr>
<tr>
<td>Academy of Management Perspectives</td>
<td>9</td>
</tr>
<tr>
<td>Industrial and Corporate Change</td>
<td>9</td>
</tr>
<tr>
<td>Strategic Organization</td>
<td>9</td>
</tr>
<tr>
<td>Academy of Management Journal</td>
<td>8</td>
</tr>
<tr>
<td>International Journal of Project Management</td>
<td>8</td>
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<tr>
<td>International Small Business Journal</td>
<td>8</td>
</tr>
<tr>
<td>Journal of Management</td>
<td>8</td>
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<tr>
<td>Journal of Operations Management</td>
<td>8</td>
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<tr>
<td>Decision Sciences</td>
<td>7</td>
</tr>
<tr>
<td>International Journal of Management Reviews</td>
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<tr>
<td>International Journal of Operations and Production Management</td>
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<td>Journal of International Business Studies</td>
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<td>Journal of Management Information System</td>
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<td>Research Policy</td>
<td>7</td>
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<tr>
<td>Journal of Engineering and Technology Management</td>
<td>6</td>
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<td>Journal of Supply Chain Management</td>
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<td>Asian Pacific Journal of Management</td>
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<tr>
<td>Small Business Economics</td>
<td>5</td>
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</table>
Table 2

Articles Reviewed by Eriksson (2014)

Adapted from Eriksson (2014) p. 77

<table>
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<th>Authors</th>
<th>Year</th>
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BDA as a Dynamic Capability

McAfee and Brynjolfsson (2012) determined BDA is the process of extracting valuable information from data the firm possesses and then the capability to use the information to gain a competitive advantage. Boyd and Crawford (2012) defined BDA as the process of combining technology, analysis, and the mythology of the supremacy of the data. From these two definitions it can be inferred BDA involves using technology to obtain information about existing and potential markets and customers, and analyzing this data in an attempt to gain a sustained competitive advantage.

McAfee and Brynjolfsson (2012) stated BDA is comprised of the three v’s: volume, or the amount of data, velocity, or the speed with which data is processed, and variety, which is the number of different platforms from which data is gathered and analyzed. Fosso Wamba et al. (2015) and Fosso Wamba et al. (2017) added two more v’s to BDA namely veracity, which refers to the accuracy of the data, and value, or the economic benefits which can be gained from the data.

BDA entails shifting the capability of BDA to a core operating department from an oversight function in the firm (Davenport, Bath, & Bean, 2012). Barton and Court (2012) determined BDA capability requires a strong management team to combine, identify and build systems to develop the right kind of data to analyze to support the goals of the firm. McAfee and Brynjolfsson (2012) stated once a firm
has made the investment in a BDA system it must have the organizational culture to use the data it obtains to assist in the decision making process as opposed to making decisions based on hunches and experience.

Teece et al. (1997) stated the ultimate objective of dynamic capabilities is for the firm to develop a sustained competitive advantage. McAfee and Brynjolfsson (2012) determined firms with BDA capability were on average “5% more productive and 6% more profitable than their competitors” (p. 64). McAfee and Brynjolfsson (2012) determined firms used BDA capabilities to make the efficiency and profitability gains through exploiting the data in a timely fashion to make the changes necessary to obtain and maintain a competitive advantage which can lead to a sustained competitive advantage. Fosso Wamba et al. (2015), Fosso Wamba et al. (2017) determined if a firm has the capability of BDA it can lead to improved business performance and a sustained competitive advantage. Ward (2014) stated firms can use BDA to become more efficient and cut costs which should enable the firm to lower its prices in an attempt to gain market share and increase profits and lead to a sustained competitive advantage. Liu (2015) posited BDA capabilities can be used to increase profits for the firm thus leading to a sustained competitive advantage. Bhatt and Grover (2005) performed an empirical study of information technology managers at manufacturing firms and determined the capability of BDA can lead to a sustained competitive advantage if the BDA of the firm is VRINO which ties in with Barney (1986, 1991, 1995, 1996). Germann,
Lilien, Fiedler & Kraus (2014) surveyed senior executives of retailers around the globe and discovered retailers benefit more than companies in other industries from the capability of BDA thus potentially leading to a sustained competitive advantage. The above findings support the Teece et al. (1997) conceptualization of dynamic capabilities leading to a sustained competitive advantage.

Ransbotham, Kiron and Prentice (2015) stated sixty-one percent of firms surveyed believe their analytics program is a competitive advantage, however, this is down from previous years and the implication is this is due to the increased use of analytics among more firms; therefore, it is more difficult for analytics to be a source of competitive advantage. This gives credence to Eisenhardt and Martin (2000) definition of dynamic capabilities being a best practice which can result in a temporary competitive advantage but never a sustained competitive advantage.

**ACRMS as a Dynamic Capability**

Payne and Frow (2005) described an ACRMS as using information technology tied together with the marketing strategy of the firm to gather and use data and information about actual and prospective customers to cocreate value with the customers through increased sales. Haislip and Richardson (2017) built on Payne and Frow (2005) by describing an ACRMS as a software system to collect, gather, and organize data and turn it into useful information with the goal of developing and maintaining relationships with existing and prospective customers.
An ACRMS is a specific type of BDA, focused on developing and maintaining relationships with current and prospective customers of the firm (Haislip & Richardson, 2015). While the extant literature on ACRMS is not as developed as the literature on BDA there have been some studies completed with the results being positive for ACRMS leading to improvements in performance for the firm. Haislip and Richardson (2015) performed an empirical study of ninety-five firms who purchased ACRMS from 2001 through 2011 against a control group and found significant improvement in sales scaled by total assets in the ACRMS group than in the control group. Haislip and Richardson (2015) also found significant improvements in operating performance and sales predictability in firms with ACRMS compared to the control group. Roh, Ahn, & Han (2005) empirically tested fourteen firms with ACRMS and found improvements in performance and efficiencies, thus leading to increased profits. Talon-Ballestero, Gonzalez-Serrano, Soguero-Ruiz, Munoz-Romero & Rojo-Alvarez (2018) performed an empirical study of hotels with ACRMS in Spain, Germany and Great Britain and found these hotels experienced improved performance. Navimipour and Soltani (2016) found large cost savings from implementing and using an ACRMS. The above studies support ACRMS being a dynamic capability possibly leading to a sustained competitive advantage according to the definition of Teece et al. (1997).
Sustained Competitive Advantage

The strategic theoretical framework of dynamic capabilities was developed to determine how firm’s obtain and maintain a sustained competitive advantage in a constantly evolving business environment (Teece et al., 1997). A firm develops a sustained competitive advantage when it outperforms its competitors over time (Porter, 1985). Barney (1991) disagreed with Porter (1985) when he stated sustained competitive advantage is not measured by a specific amount of time, rather it is when the firm enjoys an idiosyncratic strategy based upon VRINO resources which has yet to be matched by the competition.

Barney (1986, 1991, 1995, 1996) stated when a firm has VRINO resources it can develop a sustained competitive advantage. Dierickx and Cool (1989) posited a sustained competitive advantage can be gained only if the firm’s resources are nontradeable. Barney (1989) responded by stating the nontradeable resources of Dierickx and Cool (1989) are irrelevant since all resources are tradeable at a price. A firm which continues to exploit its current resources and explore for new opportunities through innovation can maintain a sustained competitive advantage due to business changes (Wernerfelt, 1984; Barney, 1991), a process which is also known as firm ambidexterity (O’Reilly & Tushman, 2004; 2008).

Hoffman, Hoelscher, & Sorenson (2006) stated a firm with a distinctive core competency can develop a sustained competitive advantage. Prahalad and
Hamel (1990) defined a distinctive core competency as a competence the firm performs better than the competition. This distinctive core competence can serve as an isolating mechanism thus acting as a resource barrier to maintain the sustained competitive advantage (Rumelt, 1984; Wernerfelt, 1984).

Barney (1986) determined if the culture of the firm is valuable, rare, inimitable and nonsubstitutable it can lead to a sustained competitive advantage. Barney and Hansen (1994) determined if there is a culture of strong trustworthiness it can lead to a competitive advantage. Since culture is comprised of the people in the firm, then matching people who possess characteristics of trustworthiness should strengthen the level of trustworthiness evidenced in the firm (Barney and Hansen, 1994).

Wright, McMahan & Williams (1994) and Barney and Wright (1998) stated human resources management can be a resource through adding value to the firm. Porter (1985), Lengnick-Hall, Lengnick-Hall, Andrade & Drake, (2009) stated strategic human resources management practices, when the human resources are managed to match the strategy of the firm, can lead to a sustained competitive advantage.
Organizational Culture

Schwartz and Davis (1981) stated “One way to understand culture is to understand what it is not” (p. 32). Schneider, Ehrhart and Macey (2013) in a literature review of organizational culture determined there is no consensus on the definition of organizational culture. Below are four different definitions of organizational culture from four well known organizational culture researchers.

Schein (1984) defined organizational culture as:

“the pattern of basic assumptions that a given group has invented, discovered, or developed in learning to cope with its problems of external adaptation and internal integration, and that have worked well enough to be considered valid, and therefore, to be taught to new members as the correct way to perceive, think, and feel in relation to those problems” (p. 3).

Pettigrew (1979) defined organizational culture as “the system of such publicly and collectively accepted meanings operating for a given group at a given time” (p. 574). Schneider (1987) defined organizational culture as “when the people there share a common set of assumptions, values, and beliefs” (p. 448). Denison (1996) defined organizational culture as “the deep structure of organizations, which is rooted in the values, beliefs, and assumptions held by organizational members” (p. 624). All four definitions are similar; therefore, any of the four could be used to describe organizational culture.
Another perspective for examining organizational culture is the competing values framework (CVF) developed by Quinn and Rohrbaugh (1983) as a means of identifying four different organizational cultures depending on whether the firm values flexibility or stability and whether the focus is inward or outward. Quinn and Rohrbaugh (1983) identified the different cultures as clan or teamwork culture, adhocracy also known as a culture of innovation, market or a culture focused on effectiveness in the marketplace and hierarchy also called efficient organizational culture.

Quinn and Rohrbaugh (1983) stated the clan culture is internally focused and possesses a structure which is flexible. In the clan culture the employees are valued, open and honest communication is expected and teamwork is valued (Quinn & Rohrbaugh, 1983). In firms which value a culture of efficiency, the focus is internal and has a strict command and control systems (Quinn & Rohrbaugh, 1983). An adhocracy culture focuses on innovation to solve customer problems by focusing externally and allowing for flexibility (Quinn & Rohrbaugh, 1983). Lastly, Quinn and Rohrbaugh (1983) determined a market culture focuses externally on the customer through competitiveness driven by productivity gains garnered through stable alignment to meet the firm’s performance goals. This research study will use the CVF to analyze the culture of the firm.
Pre-Hiring Personality Profiles and Organizational Culture

Firms use personality profiles as a part of the hiring process in an attempt to determine if the personality of the applicant would be a good fit for the firm. Chatman (1991) found positive alignment between applicants and the employer after a personality profile. Judge and Cable (1997) found both an objective and subjective fit between both the employer and applicants were in sync after profiles were administered. Slaughter, Zickar, Highhouse & Morh (2004) discovered the reputation of the firm tends to attract certain personalities of applicants. Gibberson, Resick & Dickson (2005) determined there is alignment between the firm and the applicants who are offered positions after completing a personality profile. Krajcsak (2018) discovered organizations with a clan culture tend to have high levels of commitment and self-esteem, and market focused cultures are noted by being high in commitment and neuroticism.

Resistance to Change

People resist change for many reasons. Employee resistance to change which leadership of the company implements can lead to the company not reaching its goals (Thomas & Hardy, 2011; Murtaugh, Gatersleben & Uzzell, 2012; Huang, 2015). Employee resistance can result in a new technology program not being put
into effect (Ahmed, Daim & Basoglu, 2007) and if implemented not being used properly (Nov & Ye, 2008; Al-Somali, Gholami, & Clegg, 2009; Kim & Kankanhalli, 2009).

A strong relationship between the staff and management can minimize employee resistance (Furst & Cable, 2008); this supports a firm with clan culture having an advantage in mitigating resistance than firms with other types of culture. Open and honest communication between management and staff over time can reduce resistance to change through lowering employee skepticism and cynicism (Stanley, Meyer & Topolnytsky, 2005).

**Culture of Organizational Learning**

Argote and Miron-Spektor (2011) stated as the firm gains experience it learns and changes as a result. Argote and Ingram (2000) determined learning occurs when individuals with knowledge of the processes or tasks transfers knowledge to others in the firm. Learning can also occur in a firm when knowledge is transferred from department to department otherwise called social networks (Argote & Ingram, 2000). Fiol and Lyles (1985) stated organizational learning is supported by a culture that supports learning, by including learning in its strategy and structure and fostering an environment which balances equilibrium with growth. Joo (2010) empirically found a positive relationship between a culture which supports organizational learning and lower turnover.
A firm can gain a competitive advantage from its organizational learning when it maximizes internal knowledge transfer and minimizes transferring knowledge to other firms (Argote & Ingram, 2000). Fiol (1991) posited when a firm has a culture which supports the growth of cognitive processes in its employees it can gain a sustained competitive advantage.

**Team Work and Team Building**

Teamwork is one of the words which describe a clan type organizational culture (Quinn & Rohrbaugh, 1983). Tuckman (1965) described the sequence of team development as forming, storming, norming and performing. Tuckman (1965) described forming as when people join together for a specific reason. Storming is when people share ideas and perspectives based on personal and professional experiences (Tuckman, 1965). The next step called norming is when the group settles into a structure and works together (Tuckman, 1965). The last step is accomplishing the task also known as performing (Tuckman, 1965). Team formation and teamwork continues to be a growing trend in business (Campion, Medsker & Higgs, 1993; Campion, Papper & Medsker, 1996; Marks, Zaccaro & Mathieu, 2000). Increases in team cognition can result in team members being able to figure out what their team mates will do and what needs to be done on their part based on their past interactions and experience (DeChurch & Mesmer-Magnus, 2010). Proper job design and process characteristics such as communication and
cooperation among team members were most predictive of effective team performance (Campion et al. 1993; Campion et al., 1996).

**Studies of Organizational Culture**

Denison (1996) found organizational culture is usually studied qualitatively and most research was to determine how organizational culture grew and changed over time. Schneider et al. (2013) confirmed Denison (1996) when they found early testing on organizational culture was qualitative but with the passage of time and the development of better survey methods and specific characteristics and models of organizational culture more studies are now being done quantitatively.

Schneider et al. (2013) did discover researchers divided organizational culture into two research streams, the first being culture is what an organization is, and the second being culture is something organizations possess. Hartnell, Ou and Kinicki (2011) tested the competing values framework (Quinn & Rohrbaugh, 1983) and determined organizations with more than one type of culture working in tandem instead of against each other tended to have better performance than firms with a singular or opposing cultures. Each of the four culture types according to the CVF (Quinn & Rohrbaugh, 1983) work synergistically, thus companies with more than one type of dominant culture can improve firm performance (O’Neill and Quinn, 1993).
Hogan and Coote (2014) empirically tested the relationship between organizational culture and innovation using a sample of law firms in the Sydney Australia area. Hogan and Coote (2014) based the definition of organizational culture in their study on a model developed by Schein (1992). Hogan and Coote (2014) found a positive relationship between organizational culture and innovation. O’Reilly and Tushman (2008) conceptualized firms with a senior leadership team focused on developing an organizational culture of simultaneously exploiting existing capabilities and exploring for new capabilities can result in a positive relationship between organizational culture and innovation. This requires a carefully designed and implemented mix of organizational cultures since the people who focus on exploitation have different personality characteristics than those focused on exploring new opportunities (O’Reilly & Tushman, 2004, 2008; O’Reilly, Chatman & Caldwell, 1991).

Knight and Cavusgil (2004) found a relationship between organizational culture and innovation in small exporting firms. Sorensen (2002) performed an empirical test of large publicly traded firms in eighteen different markets and found a positive relationship between organizational culture and exploiting existing markets but not as strong as exploring for new opportunities. Gregory, Harris, Armenakis & Shook (2009) found a positive relationship between organizational culture and firm performance. Chan, Shaffer & Snape (2004) discovered a positive relationship between organizational culture and firm performance in an empirical

Denison and Mishra (1995) developed and performed a mixed method test of a model on the relationship between organizational culture and firm effectiveness. In the qualitative portion using case studies to develop a grounded theory organizational culture was divided into four different categories, namely, involvement and consistency which are both internally oriented and, adaptability and mission which are both externally oriented (Denison & Mishra, 1995). Denison and Mishra (1995) then empirically tested a survey of 764 top executives in the mid-western United States relating each of the four broad categories of organizational culture with organizational effectiveness. The results were each of the four characteristics of organizational culture were positively and significantly related with objective measures such as return on assets as well as subjective measures such as quality of organizational effectiveness.

Teece et al. (1997) stated the ultimate objective of a dynamic capability is for the firm to develop a sustained competitive advantage. Barney (1986) conceptualized organizational culture can lead to a sustained competitive advantage if the culture is valuable, rare, and imperfectly imitable. Barney (1995) stated organizational culture is one of many factors which can lead to a sustained
competitive advantage for a firm. Fiol (1991) proposed organizational culture can lead to a sustained competitive advantage if it is managed through changes and renewal of people, behaviors and values. From the writings of Barney (1986, 1995) and Fiol (1991) it can be inferred organizational culture can lead to a sustained competitive advantage which is the end goal of dynamic capabilities (Teece, et al. 1997).

Organizational Culture and BDA

McAfee and Brynjolfsson (2012) determined a challenge for senior leadership in firms with a BDA capability is to change the organizational culture from one of relying on management hunches and experience in decision making to one of relying on the data in the decision making process. Kiron, Prentice and Ferguson (2014) stated “a strong analytics culture is the lynchpin in moving from competitive parity to competitive advantage” (p.10). Kiron et al. (2014) described a culture of analytics must possess the ability to utilize the data. Kiron (2013) described organizational alignment as encompassing and matching the following three factors: big data capabilities, organizational structure, and organizational culture. Kiron (2013) further stated organizational alignment is the one factor which will determine success of failure of the big data firm.
Organizational Culture and ACRMS

Triznova, Mar’ova, Dvoracek & Sadek (2015), Bahri-Ammari and Nusair, (2015), van Bentum and Stone (2005), and Chang, Park and Chaiy, (2010) determined the firm should create a customer focused culture to gain the benefits of its ACRMS. Curry and Kkolou (2004) found firms which use their ACRMS as a management philosophy should benefit from higher acceptance of the ACRMS from the staff and greater compliance and better financial results. Iriana, Buttle and Ang (2013) found firms with organizational culture of innovation and efficiency could result in improved firm performance as a result of an ACRMS. Rahimi and Gunlu (2016) found involving staff in the design and implementation of an ACRMS can have a significant impact on firm performance improvement as a result of the ACRMS.

Synthesis

The above sections in this chapter provide a review of the literature on the theoretical strategic framework of dynamic capabilities, BDA, ACRMS and organizational culture. The literature on dynamic capabilities is extensive in both breadth and depth. In spite of the number of conceptual articles and empirical testing of dynamic capabilities, including the microfoundations, antecedents, and the ultimate goal of dynamic capabilities which is sustained competitive advantage,
there is still much more to research and learn about dynamic capabilities (Teece, 2014). For the purposes of this study the definition of dynamic capabilities presented by Teece et al. (1997) will be used. Teece et al. (1997) described dynamic capabilities as “the firm’s ability to integrate, build, and reconfigure internal and external competences to address rapidly changing environments” (p. 516). Teece et al., 1997 further decomposed their description by describing dynamic as the ability of the firm to adapt to changes in the industry or environment, and capabilities as the strategic initiatives which keep the firm’s competences in sync with its constantly evolving business environment. Teece et al. (1997) also stated the ultimate goal of dynamic capabilities is for the firm to obtain a sustained competitive advantage.

BDA is a dynamic capability of a firm which can lead to a sustained competitive advantage (McAfee & Brynjolfsson, 2012; Fosso Wamba et al., 2015; Fosso Wamba et al., 2017; Ward, 2014; Liu, 2015; Bhatt & Grover, 2005; Germann, Lilien, Fiedler & Kraus, 2014). BDA is a relatively new field of study in academics which has arisen from improved technology since the early twenty first century. The literature on BDA is growing but since it is a relatively new area there is still much left to study. McAfee and Brynjolfsson (2012) and Fosso Wamba et al. (2017) both reveal many other areas of study available on BDA. This study will use the definition of BDA capability as proposed by Fosso Wamba et al. (2017), where they defined BDA “as a holistic approach to managing, processing, and analyzing
the 5V data-related dimensions (i.e. volume, variety, velocity, veracity, and value) to create actionable ideas for delivering sustained value, measuring performance, and establishing competitive advantages” (p. 356).

The field of study on ACRMS is understudied as well. This is due to ACRMS being a new technology since the early twenty first century. For purposes of this study an ACRMS combines applications, technology, and information provided by a BDA program with the people, processes, operations and marketing capabilities in the firm to cocreate value with customers and result in increased sales (Payne & Frow, 2005; Haislip & Richardson, 2017).

This proposed research examines an ACRMS as an example of a BDA program and a dynamic capability. However, there is some incongruity between the research and the results as it concerns ACRMS. The research has shown improvements in results from the implementation and use of an ACRMS which would lead one to conclude it is a dynamic capability. Haislip and Richardson (2015), Roh, Ahn, and Han (2005), Talon-Ballestero, Gonzalez-Serrano, Soguero-Ruiz, Munoz-Romero and Rojo-Alvarez (2018), and Navimipour and Soltani (2016) all found firms with an ACRMS had superior results to those without one. These finding support an ACRMS as a dynamic capability.

The market for ACRMS continues to expand. According to the website SuperOffice.com, ACRMS currently are used in 74% of businesses, and the sales of ACRMS in 2018 are expected to top $40billion worldwide making ACRMS the
fastest growing segment in the software marketplace. Given the large percentage of businesses with an ACRMS and the anticipated market size in dollars for the current year supports ACRMS as being a best practice of those members in a market sector, similar to the dynamic capability conceptualized by Eisenhardt and Martin (2000).

A possible explanation to determine if an ACRMS fits the Eisenhardt and Martin (2000) conceptualization of a dynamic capability where it is possesses more homogeneous characteristics with some idiosyncratic features and is similar to a best practice or a Teece, et al. (1997) or a Teece (2104) definition of a dynamic capability possessing more heterogeneous and idiosyncratic details and possibly leading to a sustained competitive advantage is to examine the reason for purchasing an ACRMS and the culture of the firm. For instance, if a firm purchases an off the shelf ACRMS as a defensive measure against the competition it supports the Eisenhardt and Martin (2000) definition of dynamic capabilities by making the ACRMS a best practice as opposed to the Teece et al. (1997) definition of dynamic capability. A possible reason some firms are enjoying better than expected returns from investing in an ACRMS is the customization of the ACRMS to align with and support its corporate and sales strategy and organizational culture thus supporting Teece et al. (1997) definition of dynamic capabilities, since the ACRMS is idiosyncratic.
Organizational culture has been studied by many researchers and in many different contexts. In spite of the literature on organizational culture being deep and broad, Schein (2015) stated there is still more to be studied and learned about organizational culture. For purposes of this study the definition of organizational culture proposed by Denison (1996) will be used. Denison (1996) defined organizational culture as “the deep structure of organizations, which is rooted in the values, beliefs, and assumptions held by organizational members” (p. 624). The culture will then be examined and classified according to the CVF (Quinn & Rohrbaugh, 1983) after determining the characteristics of the organizational culture of the firm serving as the case.

This paper proposes to build off of an empirical study by Fosso Wamba et al. (2017) of big data analytic capabilities. Fosso Wamba et al. (2017) tested the relationship between BDA and firm performance mediated by process oriented dynamic capabilities. Fosso Wamba et al. (2017) performed a survey of Chinese information technology managers and determined BDA is positively related to firm performance and performance oriented dynamic capabilities are a significant mediator. Fosso Wamba et al. (2017) did leave a gap in the literature by not studying the effect of organizational culture and management commitment on the implementation of the dynamic capability of big data analytics. This study proposes to examine the effect of organizational culture on the continued use of BDA in the form of an ACRMS at the firm level.
Research Question

The research question developed from the literature is: *does organizational culture serve as an antecedent to the dynamic capability of an ACRMS as an example of BDA?*
Chapter 3
Methodology

Overview

This study explores the role of organizational culture as an antecedent to the continued use of the dynamic capability of BDA as exemplified by an ACRMS. This study focuses on dynamic capabilities from the perspective of the ability of the firm to sense and seize upon opportunities and then reconfigure its capabilities to exploit the identified opportunities which could result in a sustained competitive advantage (Teece et al. 1997; Teece, 2009; Teece, 2014).

BDA and ACRMS have been shown to be a dynamic capability in some firms (McAfee & Brynjolfsson, 2012; Fosso Wamba et al., 2015; Fosso Wamba et al., 2017; Ward, 2014; Liu, 2015; Bhatt & Grover, 2005; Germann, Lilien, Fiedler & Kraus, 2014). Therefore, this study examines the effect of organizational culture on the ability of the firm to reconfigure its resources to use the dynamic capability of BDA specifically an ACRMS and the success of the BDA and the ACRMS program as measured by performance improvements and/or operational results once it has been implemented.
The study method used is a transcendental phenomenological (Moustakas, 1994) holistic instrumental single case study (Stake, 2006; Yin, 2018). This study took place at the office of the business which served as the case by conducting structured and recorded interviews of several of its staff members to determine the dominant culture of the firm and the relationship between the culture of the firm with the use of the dynamic capability of an ACRMS serving as an example of BDA in a specific knowledge based sales and service firm. The firm chosen as the case of this study uses an ACRMS to support both its sales and service processes according to the executive vice president (EVP) who is responsible for leading and managing the office. The EVP stated the firm is highly automated in all of its operating functions and has made a commitment to remain on the cutting edge of technology use in its industry. The interaction of senior level management with staff employees and others both inside and outside the firm was also observed by the researcher to check for concurrence between the stated organizational culture of the firm and the observed culture of the firm.

The reason the researcher used a qualitative transcendental phenomenological holistic instrumental single case study as the method to conduct the research was to allow the people who actually live the phenomena of organizational culture to describe their experiences with the case firm. The participants were interviewed and asked about their experience with the phenomena
of organizational culture and their belief as to the effectiveness of the culture as an antecedent to the dynamic capability of the ACRMS used by the firm.

The researcher could not find a single firm case study on the topic of organizational culture as an antecedent to BDA and ACRMS as a dynamic capability in knowledge based sales and service firms. The researcher did find studies of organizational culture and BDA and ACRMS; however, these studies were focused on the relationship between organizational culture and firm performance attributable to the BDA and ACRMS programs. The goal of studying the phenomena of organizational culture and its relationship as a potential antecedent to the dynamic capability of ACRMS and BDA in a case study is to gain confirmation of previous quantitative studies of the same phenomena.

The case study method is an accepted qualitative study method as stated by Creswell and Poth, (2018). The nine distinct characteristics of qualitative research are data collection occurs in the field at the site of the study, the researcher serves as the collector of the data, multiple forms of data are gathered, inductive and deductive logic are used in the analyzing process, the participants perspectives are as important as the literature which supports the research, the research is dependent on the context of the study, the research design may change at any point during the process, the researcher discloses their position in relation to the subject of study so biases or preconceived notions are disclosed or can be inferred, and the study is
considered holistic in which the research studies the subject in total (Creswell & Poth, 2018).

Stake (2006) defined a case as “… a noun, a thing, an entity…” (p. 1). Stake (1995) stated cases are designed to learn as much as possible about the case as opposed to generalizing from the case. Yin (2018) agreed with Stake (1995) when he stated statistical generalization is not possible from a case study. However, Yin (2018) and Flyvbjerg (2006) did state analytical generalization based on the data gathered during the case study is possible from a single case study. Yin (2018) stated the case study method is used to study reality in its natural setting as opposed to an unnatural setting such as a laboratory. Eisenhardt (1989) defined the case study method as “… a research strategy which focuses on understanding the dynamic present within single settings” (p. 534). Flyvbjerg (2006) opined the depth of knowledge about the theoretical framework can be gained from the case study.

The methodology used in this study is described as engaged scholarship by Van de Ven (2007) or systematic combining by Dubois and Gadde (2002). Van de Ven (2007) stated an important part of engaged scholarship is during the data analysis process the researcher should go back and forth between the data gathered and the theoretical literature to sharpen the analysis. Dubois and Gadde (2002) described systematic combining as the process of matching the data to the theory while simultaneously redirecting the study.
In any case study it is imperative the researcher sets aside any preconceived biases or opinions about the case and the phenomena being studied (Yin, 2018). Moustakas (1994) stated in a transcendental phenomenological case study the researcher must set aside all biases and preconceptions about the case and the object of the study and examine it with a fresh point of view in order to allow the case subjects to speak for themselves. As stated by van Manen (1990) one of the causes of bias and preconceived opinions about the case and the objects of the study are the researcher knows too much instead of too little about the case and the object of the study.

This chapter contains the following sections: the philosophical worldview of the researcher is explained and recognized, the researcher’s position in relation to the industry and case chosen for this study is explained, the research design and approach is explained, the population studied and the sample selection process is explained. Following these sections is an explanation of each step in the research process from the type of instruments used to collect data, and the procedures on how the data was collected analyzed and validated. This chapter will close by examining the ethical considerations of the research as well as a brief description of the firm serving as the case.
Philosophical Worldview

Creswell and Poth (2018) stated every researcher brings their own set of biases and beliefs into the subject of study. Moustakas (1994) stated the first step in transcendental phenomenological research is for the researcher to set aside personal biases and beliefs and examine the phenomena from a fresh perspective. Therefore it is important the researcher is aware of his or her preconceived biases and beliefs and sets these to the side during the research process to allow the participants to speak for themselves.

This study was conducted from the perspective of critical realism, in which it is understood reality exists; however, we can never know the entirety of reality (Bhaskar, 1979). According to the critical realism philosophy it is possible to gain knowledge about the real world through experimentation and research however, the real world can never be fully known (Archer, Decoteau, Gorski, Little, Porpora, Rutzou, Smith, Steinmetz, and Vandeberghe, 2016). Van de Ven (2007) described the ontology of critical realism as being objective and stated there is a reality and it is real even though it is beyond our capability to know everything about the reality. Van de Ven (2007) stated the epistemology of critical realism is subjective and described reality as existing whether or not we realize its existence. The personal viewpoint of the researcher is reality exists even if it cannot be explained or recognized.
The world view of critical realism ties in well with the research method of transcendental phenomenology since both derive from a belief in the real or conscious world and search for knowledge (Bhaskar, 1979; Moustakas, 1994). The researcher examines issues from a fact based perspective. When confronted with issues or problems to be solved the researcher examines objective sources for possible solutions and then sorts through the data to make a decision in an attempt to solve the problem based on the objective data and analysis. However, the researcher is aware of his own personal biases based on his past lived experiences and his personal belief system and will make every attempt to set his personal point of view to the side and allow the participants to speak for themselves during this study.

The researcher believes subjective phenomena such as organizational culture can be measured with objective instruments and; therefore, characteristics of organizational culture can be inferred from these empirical measurements. For instance, it is possible for different people coming from different backgrounds, perspectives, and belief systems to view the culture of a single organization differently. For example, Weick and Quinn (1999) prescribed survey approaches to measure different characteristics of organizational culture by operating from the perspective where organizations have culture instead of the perspective where organizations are culture.
Researcher Positionality

The researcher has extensive educational and professional experience in the insurance industry. The researcher grew up in the insurance industry since his father was a licensed Florida insurance agent for over forty five years, starting before the researcher was born. While the researcher was in high school he worked part time in his family’s independent insurance agency and began reading and studying insurance manuals. The researcher took several insurance classes during his undergraduate studies. While pursuing a Master of Business Administration degree the researcher completed many insurance and risk management classes. During the time the researcher worked in the insurance industry the researcher earned four professional designations which consisted of completing numerous self-study continuing education courses and passing proctored national examinations after each course.

The researcher was employed in the insurance industry from June 1984 through August 2011. During this time period, the researcher was employed in the independent insurance agency system in positions ranging from agency underwriter, marketing manager, commercial insurance agent, construction surety agent, in addition to holding executive positions, and a minority ownership interest in a family owned independent insurance agency. In addition the researcher was also responsible for researching and purchasing automation management systems...
including automated data base management systems and automated customer relationship management systems for the agency and overseeing automation interfaces with the various insurance companies the agency represented. Although no longer actively employed in the insurance industry, the researcher has maintained an active Florida insurance agent’s license by completing the Florida continuing education requirements for insurance agents.

The researcher was formerly employed by the business which is the case for this research study. The researcher was employed by the previous ownership group of the firm serving as the case from March 2005 through March 2011. The researcher and the business serving as the case parted ways amicably after the business serving as the case study was sold to a new ownership group from another large southern state. The researcher personally knows many of the owners, managers and employees of the business which serves as the case for this study.

As stated above, Moustakas (1994) determined the researcher must set aside all existing biases, beliefs, and knowledge about the subject prior to starting research to examine the phenomena as it is and not how they may have known it or believed it to be in the past. Due to the researcher’s personal knowledge of many of the owners, managers and employees of the business serving as the case being researched it is imperative the researcher set aside any preconceived ideas, biases, opinions, and beliefs both positive and negative about the case being studied and let the participant’s speak for themselves.
Research Design

The research method for this study is a transcendental phenomenological (Moustakas, 1994) holistic instrumental single case study (Stake, 2006; Yin, 2018). The case study method was chosen since it is designed to study phenomena in a naturally occurring environment as opposed to an artificial setting. As explained by Yin (2018) a case study is an empirical method where the individual case is examined in in “real world context” (p.15) or as Eisenhardt (1989) stated a “case study is a research strategy which focuses on understanding the dynamics present within single settings” (p. 534). Dul and Hak (2012) defined a case study as “a study in which (a) one case (single case study) or a small number of cases (comparative case study) in their real life context are selected, and (b) scores obtained from these cases are analysed in a qualitative manner” (p. 4). Yin (2018) further stated the case study “shows how case study, research comprises an all-encompassing mode of inquiry, with its own logic of design, data collection techniques, and specific approaches to data analysis” (p. 16).

This study is to determine if and how organizational culture can be an antecedent to the dynamic capability of BDA in the form of an ACRMS. Organizational culture is a subjective phenomenon. However, characteristics of organizational culture can be deduced by quantitative, qualitative or mixed methods (Denison, 1996).
As stated above, the research method is a transcendental phenomenological (Moustakas, 1994) holistic instrumental single case study (Stake, 2006; Yin, 2018). Deconstruction of the method into transcendental phenomenological, holistic, instrumental, single case study reveals the reason for choosing this method for this study. Moustakas (1994) stated phenomena such as organizational culture serves as a place to begin research in the search for knowledge. Moustakas (1994) and Creswell and Poth (2018) determined the researcher must set aside all existing biases, beliefs, and knowledge about the subject prior to starting research to examine the phenomena as it is and not how we may have known it or believed it to be in the past.

Yin (2018) stated a holistic single case study involves studying a single case from one level of analysis. Since this study is on organizational culture the researcher will study and analyze the culture of the organization as a whole instead of dividing the case into departments or types of employees. Yin (2018) also stated a common case is an effort to observe and analyze a typical case in order to study a subject of theoretical interest, which in this study is the relationship between organizational culture and dynamic capabilities.

Stake (2006) stated an instrumental single case study is a study of a single person or business to gain an understanding of something other than the particular case. This study is to understand from a theoretical perspective the relationship between organizational culture and dynamic capabilities generally as opposed to
specifically, and the instrumental single case study is the appropriate method for this study (Stake, 2006).

The method used to complete the analysis of this single case study is described as systematic combining (Dubois & Gadde, 2002) or as Van de Ven (2007) labeled it engaged scholarship. Dubois and Gadde (2002) described systematic combining as the process of attempting to match the theoretical framework with the real world or “Matching is thus, about going back and forth between framework, data sources, and analysis” (p. 556). Van de Ven (2007) described engaged scholarship as formulating a problem, deciding on a theoretical framework to study the problem, designing the research process and then solving the problem while examining the theoretical literature and repeating as many times as it takes to complete the study.

Therefore, this study will be conducted in the following manner. The problem will be identified by the research question. In this case it is “does organizational culture serve as an antecedent to the dynamic capability an ACRMS as an example of BDA?”

The firm identified by the researcher is a branch office located in the central Florida area of a privately owned multistate regional independent insurance agency. According to the EVP of this office, this office uses an ACRMS and uses automation in order to become more efficient in servicing and communicating with
its clients, prospective clients and former clients, plus the insurance companies the agency represents.

The researcher met with the current EVP in his office at the independent insurance agency at the site of the business to describe the purpose of the research project and to ask for his cooperation by allowing the firm to serve as the subject of the case study. The EVP agreed and he posted the Recruitment Flyer (Appendix B) and the Interview Sign-up Sheet (Appendix C) in the company break room to solicit participants. This procedure was how the EVP wanted to solicit participation for this study. A total of thirteen employees including the EVP signed up to participate and be interviewed. The researcher conducted all interviews at the site of the business. The researcher did make available the opportunity for the interviews to be conducted using alternate methods such as off site or through technology in the form of phone, Skype (https://www.skype.com/en/), Zoom (collaborative web-conferencing software; https://zoom.us/), Facebook Messenger, or any other medium with which they were comfortable. None of the interviewees chose any of the alternate interview methods; therefore, all formal interviews were conducted in the office of the business serving as the case study over a period of five days in October and one day in November of 2018. Each person interviewed received a $25 VISA gift card to compensate them for their time.

All thirteen structured interviews were recorded using a recording app on the researcher’s iPhone and a portable digital recording device. Prior to beginning
each interview each participant was asked for permission to record their individual interview. All interviewees agreed to have their interview recorded. Also, prior to starting the interview each participant read and signed the Informed Consent Form (Appendix D) and completed the Demographic Information Form (Appendix E). Both forms were returned to the researcher prior to the start of the interview.

In order to transcribe each interview the researcher purchased the transcribing software program from NVivo12. Once each interview was transcribed by NVivo12, the researcher employed an undergraduate student to listen to each interview from the digital file and simultaneously check the voice recording against the NVivo12 transcript for accuracy and make appropriate corrections to match the written transcript with the voice recording. Once this step was completed the researcher listened to each recorded interview and simultaneously compared against the edited transcripts and made appropriate corrections to match the written transcript to the voice recording.

Each interviewee was also asked if they would be willing to participate in a follow up interview in the instance their answers needed more clarification after the transcription was completed. If it was necessary to conduct a follow up interview the transcript would have been emailed to the participant prior to the follow up interview. Also, if a follow up interview was necessary the interviewee would receive a second $25 VISA gift card to compensate them for their time. A follow up interview would have been conducted in an unscripted free flowing manner.
Every participant was willing to perform a follow up interview if necessary. Fortunately no follow up interviews were necessary as the transcribed interviews were clear and unambiguous.

The researcher also made extemporaneous notes when an interaction between employees of the firm was witnessed. In addition, the researcher had the opportunity to conduct an unstructured unrecorded interview conducted off-site of the firm’s location with a subject matter expert affiliated with the firm. Extemporaneous notes were made by the researcher upon completion of this informal interview and the information gained in this interview was not included in the data analysis. Since the business serving as the case is privately owned financial information was not made available to the researcher, however, the researcher did find and read publicly available information about the firm. However, the researcher was able to obtain some performance information about the firm from a second interview with the EVP. This performance information on the firm was compared to benchmarking information published by Reagan and Associates, under the purview of the Independent Insurance Agents & Brokers of America, Inc. (IIABA).
Research Approach

In their review of dynamic capabilities studies Arend and Bromiley (2009) determined case studies and survey-based methods accounted for seventy percent of studies of dynamic capabilities. Denison (1996) found organizational culture is usually studied qualitatively but can also be studied quantitatively as well as using the mixed methods or combination of qualitative and quantitative methods, and most research was to determine how organizational culture grew and changed over time. Schneider et al. (2013) confirmed Denison (1996) when they found early testing on organizational culture was qualitative but with the passage of time, the development of better survey methods, and specific characteristics and models of organizational culture more studies are being done quantitatively or using mixed methods in an effort to gain scientific knowledge through statistical analysis. However, the generalizations gained from statistical analysis of quantitative methods may not apply to an individual firm, and do not provide a depth of information about the culture of the firm or why the staff believes about the culture (Denison, 1996).

A transcendental phenomenological study is a preferred research method to gain in depth information concerning an experience of a phenomenon (Moustakas, 1994). By asking employees about their perceptions of the organizational culture in relationship with proposed changes the staff will have to work through and with the
ACRMS substituting for the dynamic capability we can learn about the phenomena of organizational culture as it relates to the continued use of a dynamic capability.

Creswell and Poth (2018) stated interviews with between five and twenty-five people are preferred for a phenomenological study. Interviews and multiple interviews with participants are normal in a phenomenological study (Creswell & Poth, 2018). This study met the criteria of Creswell and Poth (2018) by interviewing 13 people for this study out of total population of 30 employees at the time of the case study in an effort to gain an understanding of the phenomena of organizational culture. Creswell and Poth (2018) stated personal interviews both initial and follow up, reviewing public information and any proprietary information about the case, and observations of staff interactions are all normal parts of a phenomenological study.

**Population and Sample**

The population chosen by the researcher is the Orlando, Florida office of a privately owned regional independent insurance agency headquartered in another large southern state. The office chosen as the case to be studied has 30 employees. However, only 27 employees use the ACRMS in their job. A total of 13 or 48% of ACRMS users were formally interviewed. All participants volunteered to be interviewed. The business chosen as the case is focused on providing insurance
products and services for businesses which are primarily located in the state of Florida. A single industry has been chosen by the researcher in an effort to prevent other possible hypotheses from the use of multiple industries contaminating the data since different industries use different forms and different types of ACRMS as part of a BDA program.

**Selection of Participants**

Participants were solicited by the recruiting flyer (Appendix B) and a sign-up sheet (Appendix C) being placed on the wall in the break room at the business serving as the case. The sign-up sheet listed four different days interviews would be conducted with four different times (two times in the morning and two in the afternoon) available on each day. A total of 12 employees signed up to be formally interviewed on site at the office of the business serving as the case over the four day period in October of 2018. A thirteenth employee was formally interviewed on site at the business serving as the case in November of 2018. This employee was out of the office and the country on vacation during the week the interviews were scheduled to be conducted. An arrangement was made to interview her in November upon the employees return to the office. This person is the longest tenured employee of the firm. Due to the institutional knowledge possessed by this employee gained over their tenure with the business serving as the case the
researcher deemed it important to conduct a structured and recorded interview with this subject at a later date.

Each participant was given the informed consent form (Appendix D) and the demographic form (Appendix E) to complete and return to the researcher prior to each interview. All 13 interviews were recorded and the recording was disclosed to and approved by the interviewees prior to commencement of each interview. The researcher kept the signed and completed forms in a separate file for each volunteer participant. The participants were offered the opportunity to choose their own pseudonym; however, none of them took this option and left it up to the researcher to assign pseudonyms or other personal identifiers on their behalf.

In addition one SME about the firm was interviewed in an unstructured manner and the interview was conducted off site of the business and not recorded. However, the researcher did take extemporaneous notes at the conclusion of the interview. This employee is the former EVP of the office. Since the former EVP is in the process of retiring, she voluntarily gave up her leadership position to the current EVP who is younger person who was identified and mentored by this person after gaining approval of the partners at the home office of the firm. The results of this interview were not included in the data analysis.

It was not necessary for any owner, manager, or other employee of the business serving as the case to be familiar with the strategic theoretical framework
of dynamic capabilities and/or its antecedents. The structured interview script covered several topics related to the research question and the concept of dynamic capabilities and its antecedents as well as organizational culture, BDA, and an ACRMS.

The researcher completed and submitted the appropriate Institutional Review Board application. Once the form was approved by the Institutional Review Board the researcher scheduled and conducted the interviews.

**Instrumentation**

The following forms were used to obtain data for this research study. First an informed consent form (Appendix D) was used to obtain written permission to interview the volunteer. The demographic form (Appendix E) was used to gather information about the volunteer to allow the researcher to compare the responses based on interviewee demographics. The interview protocol for the structured interviews of the employees (Appendix F) was used to guide the interviews of staff employees. The interview protocol for the structured interview with the EVP management (Appendix G) was used to guide the interview of management of the firm serving as the case. The performance questionnaire (Appendix H) was used to obtain performance specific information to compare to industry performance benchmarks.
The researcher audio recorded all structured on-site interviews using a portable digital recording device as well as a voice recorder application on his iPhone as a back-up recording device. All interviewees approved audio recording of their individual interview prior to commencement of their interview. The researcher tested the recording equipment prior to each interview for sound quality and battery life to ensure the recordings were of clear quality and the recorders would last the length of each interview.

The researcher purchased the transcription service from NVivo 12 to perform the initial interview transcription. Upon receiving the transcripts from NVivo12 the researcher hired an undergraduate student at a local college to simultaneously read the transcript while listening to the audio recording of the interview to check for accuracy and to make the appropriate edits in the written transcripts based on the audio transcripts. Upon receiving the edited written transcripts from the undergraduate student the researcher then simultaneously listened to the audio transcripts and read the written transcripts to compare them for accuracy and made the appropriate edits to the written transcripts based on the audio transcripts.

The researcher purchased NVivo12 to assist with the data analysis. Written transcripts from the formal interviews were downloaded into NVivo12 to assist the researcher in coding the transcripts. The performance information of the case firm was compared against benchmarking information provided by Reagan and
Associates who annually prepares a statistical analysis of independent insurance agencies and brokerage firms for the IIABA.

**Procedures**

The steps in the interview process began with a pilot interview, followed by the initial interviews conducted at the site of the firm serving as the case. The completed and signed Informed Consent Form and the Demographic Form were gathered at the time of the interview. Follow-up interviews were only conducted if it is necessary to clarify responses or to clear up any ambiguities. No follow-up interviews were necessary.

**Pilot Interview**

The researcher conducted a pilot interview with the owner of a small independent insurance agency who the researcher knows personally but whose agency is not included in the study due to not having enough employees for the purposes of this research. The purpose of the pilot interview was to test the interview script for reliability and to receive feedback from the test subject for appropriateness of the questions. The pilot interview was recorded using the iPhone application which was also used in the case study and transcribed and was then coded to determine if the questions needed to be edited or changed.
Based upon the results of the pilot interview it was determined the researcher needed to use a portable digital recording device for better sound quality, to have the ability to download the audio files into NVivo12 for transcribing, and also needed to mitigate the risk of having the battery life expire on a single recording device through the use of redundant systems. Two additional questions about the ACRMS were added to the interview protocol based on feedback from the pilot interviewee. The length of time for the pilot interview was approximately one hour.

**Confirmed Participation and Gathering Consent**

All interviewees voluntarily signed up to be interviewed and selected a date and time from the sign-up sheet (Appendix C) which was posted beside the recruitment flyer (Appendix B) in the break room at the site of the business serving as the case to be studied. Prior to beginning each formal interview the researcher had each participant read the informed consent form (Appendix D) sign it and return it to the interviewer. The participants were told if they wanted a copy of the form it could be emailed to them; however, none of the interviewees asked for a copy. In addition, all interviewees were verbally told before and at least one time during the interview they did not have to answer any questions and they could terminate the interview at any time. All participants completed the interviews in full.
Initial Interview Process

The researcher conducted 13 structured interviews at the site of the business serving as the case study. All structured interviews were recorded with the knowledge and approval of the volunteer participants prior to commencing the interview. All of the formal interviewees received a $25 VISA gift card for participating in the research study. In addition to the formal interviews the researcher also conducted one unstructured unrecorded interview at an off-site location from the business serving as the case and then recorded extemporaneous notes upon completing this interview, however, this interview was not included in the data or analysis of the data.

Member Checking and Follow-Up Interviews

Prior to the initial interviews the volunteers were instructed by the researcher if there were any ambiguities or uncertainties concerning their answers to the interview questions the researcher would email a copy of the typewritten transcript for the member to check and clarify their responses and to request a follow-up interview, if needed. All interviewees agreed to a follow-up interview, if needed. Any follow-up interview conducted would have been recorded and conducted in a free-flowing format. If a follow-up interview was performed the interviewee would be compensated with a $25 VISA gift card for their time.
Initial interviews went through a three step transcription process. First NVivo12 transcription service converted the digital audio files to typewritten transcripts. The second step involved an undergraduate student at a local college simultaneously listening to the audio files and checking the written NVivo12 transcript and editing for corrections in the typewritten transcripts. The last step involved the researcher simultaneously listening to the audio files and editing for corrections to the transcripts received from the undergraduate student. Since there were no ambiguities in any of the transcribed answers the need to have the participants check the transcript and sit for a second interview was not necessary.

**Data Collection**

Data collection consisted of the 13 recorded structured formal interviews using the interview protocols in Appendix F for the employees and also the interview protocol in Appendix G for the EVP of the firm serving as the case. All of these interviews were digitally recorded and transcribed. In addition, an unrecorded unstructured interview was conducted with an SME of the firm and extemporaneous notes were taken but were not included in the data collection or analysis. Another source of data collection arose from a meeting between the researcher and the EVP for the purpose of gaining performance information on the firm the EVP was willing to share with the researcher. This performance
information was compared to benchmarking information provided through a report commissioned by the IIABA. Another type of data was extemporaneous notes made from observing employee interactions while the researcher was on site. The last type of data was from found publicly available information concerning the firm serving as the case.

**Data Analysis**

The first step in the data analysis process was transcribing audio digital files of the structured and recorded interviews into word document transcripts. This involved a three step process. The first step was using the NVivo12 transcription service to transcribe the files. The second step involved using an undergraduate student to check and edit the NVivo12 transcripts to match the digital files. The final step involved using the researcher to check and edit the undergraduate students editing of the transcripts to match the digital files.

The next step in the data analysis process was transcribing the unstructured unrecorded interview notes by typing and editing the handwritten notes the researcher made immediately after the interview took place. The next step was to type the notes made of informal personal observations of employee interactions. Then the researcher used data collected from the unstructured interview and the informal employee interaction notes to compare against the transcripts of the
structured interviews to check for confirmation or dissonance with the responses from the structured interviews.

Then the researcher organized the transcripts from the structured interviews and began the process of pattern building (Stake, 1995; Yin, 2018). Yin (2018) stated pattern matching is one of five techniques to analyze data from a case study. Stake (1995) described this process as “The search for meaning often is a search for patterns, for consistency, for consistency within certain conditions, which we call “correspondence”” (p. 78), and the closer the actual responses match the predicted responses the more the internal validity is supported (Yin, 2018). Following the guidance of Van de Ven (2007) and Dubois and Gadde (2002) the researcher moved between the theoretical frameworks used in this study, and compared the data with the literature, then analyzed more data, then the researcher repeated the process of going between the literature and additional data analysis until themes or consistent patterns or correspondence were reached.

It is possible the researcher would discover after analyzing the data there is no relationship between the organizational culture as an antecedent to the continued use of the dynamic capability of BDA in the form of an ACRMS from the case being studied. If this was the result, the researcher would be forced to either redesign the study, conclude the research question is not valid, or organizational culture is not an antecedent to the dynamic capability of a BDA in the form of an ACRMS.
Ethical Considerations

This study was designed to be as safe as possible since it mainly concerns the organizations culture, and use of an ACRMS as an example of a BDA system in a firm. There are no foreseen physical risks to any participants associated with this study. A risk the participants face is loss of confidentiality; however, this has been recognized and addressed in the Research Participant Informed Consent Form (Appendix D). Even though no guarantees can be made every precaution was taken to ensure the participants confidentiality.

There is also the possibility some participants could have found some of the interview questions invasive or sensitive based on their comfort level discussing their part in the organization and whether or not they agree with the culture or top management. This was accounted for by including language in the consent form which states the participant may refuse to answer any question, may take a break at any point in time if needed, and, if desired may withdraw from the study at any point in time. The participants were reminded at various times during the interview process their identity will be kept confidential and protected, and they can refuse to answer any question. Also, the participants in this research study were reminded at various times they can withdraw from the study at any time. In addition, each participant had the opportunity to receive a transcript, if requested, of each
interview in which they participated. No participant asked for a copy of their interview transcript, or the researcher’s interpretation of their responses.

**Validity and Trustworthiness**

Triangulation is an important part of the validity testing of the single case study in which multiple sources of evidence should converge on a common theme (Yin, 2018; Stake, 1995, 2006; Creswell & Poth, 2018). This study used 13 structured and recorded interviews of employees at the firm serving as the case study. The industry experience level of the interviewees was from less than one year to 44 years, with an average tenure in the industry of twenty one and one half years... The interviewee’s time employed by the firm serving as the case ranged from as little as 3 months to over 40 years with an average tenure of nine and one half years with the employer. The people who were interviewed held positions in the firm from service clerical positions to the EVP of the office. One unstructured and unrecorded interview with the soon to be retired former EVP was also conducted; however; this interview was not included in the data. The EVP of the firm serving as the case also provided benchmarking information to the researcher during a second meeting. The researcher also observed informal interactions between employees of the firm, as well as, reviewed publicly available information about the firm. Triangulation of data from different sources can strengthen the
construct validity of the case (Gibbert, Ruigrok and Wicki, 2008; Yin, 2018; Stake, 1995, 2006; Creswell & Poth, 2018).

Gibbert, Ruigrok, and Wicki (2008) stated in addition to construct validity in a case study there is also internal and external validity, and reliability. Yin (2018) stated internal validity in an exploratory case study, such as this one where the relationship between organizational culture and dynamic capabilities is being examined, is supported when the data from the study is in line with theoretical expectations. Yin (2018) and Gibbert et al. (2008) stated external validity is supported when the results are generalizable. While a single case study is usually not statistically generalizable it can be analytically generalizable whereby the relationship between the data and the theory are generalizable (Gibbert et al., 2008). Reliability involves using clear instructions on methods (Gibbert et al., 2008; Yin, 2018). Reliability in this study is supported by the use of interview protocols which were followed in every structured interview as well as clearly documented steps followed during this study (Gibbert et al., 2008, Yin, 2018). Lastly, by using validation the preconceived ideas and biases of the researcher can be dealt with at the time of the research by allowing the data to speak for itself as communicated by those in the case firm which were interviewed (Creswell & Poth, 2018).
**Generalizability**

Stake (1995) determined single case studies are generalizable as they relate to theory but not to the individual case being studied. However, Yin (2018), Gibbert et al. (2008) and Flyvbjerg (2006) did state analytical generalization based on the data gathered during the case study is possible from a single case study. The intent of this proposed research study is to inspire future studies of organizational culture as an antecedent to the dynamic capability of an ACRMS as a specific segment of BDA. Future studies on organizational culture as an antecedent to either the same or different firm specific idiosyncratic dynamic capability may be performed using other qualitative and quantitative methods in an effort to gain acceptability as a theoretical construct. The long-range goal is for future study of the research question and themes developed and diagnosis discovered from this study to contribute to the academic and practical strategy literature on the theoretical framework of dynamic capabilities.

**Profile of Firm Serving as Case**

The firm serving as the case of this research study is the Orlando, Florida office of a regional multi-state privately owned independent insurance agency headquartered in another large southern state. Kagan (2018) describes an independent insurance agency as a firm which sells and services the insurance
products of more than one insurance company and is compensated in the form of commissions from the insurance companies and is not an employee of any insurance company. As such the independent insurance agency acts as an intermediary by matching its clients with the insurance company which provides the most effective insurance products to meet the needs of each specific client. The entire organization has offices in four states in the southern United States, and a processing unit in China. The Orlando office sells and services property and casualty insurance policies, risk management services, employee benefit plans, and surety bonds for businesses only.

Since independent insurance agencies control the customers they are seen as more valuable to the insurance companies they represent (Wells, 2019). More privately owned independent insurance agencies are selling to larger publicly traded independent insurance agencies as a result of the increasing values (Wells, 2019). This has led to greater and greater purchasing power for the publicly traded independent insurance agencies through control of more clients (Wells, 2019). Since the firm being studied is privately owned it has to differentiate itself from the better capitalized publicly traded insurance agencies to gain a competitive advantage.

The EVP of the office stated the firm utilizes technology and automation in its operations to the point where it is 100% paperless. Technology is leading to changes in the insurance distribution system as expectations of the customer have
increased demands for more immediate service responses (Wells, 2019). According to the consulting firm Deloitte in a 2017 publication, technology is being used in the insurance industry to expand growth opportunities through transforming its legacy systems to be more responsive to its customers increasing service demands, while remaining in compliance with increasing government regulations.

Since the firm serving as the case is privately owned and has less access to capital to finance future growth compared to publicly traded firms, it is in the segment of the industry which is vulnerable to being purchased by a publicly traded independent insurance agency firm (Wells, 2019). According to the EVP of the firm serving as the case it utilizes technology to improve its service to its clients. Each employee has three computer monitors on their desk. The firm uses four different software programs, all of which communicate with the other programs. A diagram of the automation systems and communication flows between systems is shown in Figure 4.
**Figure 4 Model of the Automation Systems Used in the Firm Serving as Case Study.**

The first software program is an off the shelf email system to which every employee has access. The next software program is the customized automated file cabinet system to which every employee has access. In addition the agency uses an off the shelf ACRMSE (automated customer relationship management system existing customers) for service people to use in providing day to day insurance.
services to existing customers and to track the progress of these service requests. The only people with access to the ACRMSE are the service people. The last software program the agency uses is an off the shelf ACRMSP (automated customer relationship management system prospects) to track their contacts with prospective, current and former clients. Access to the ACRMSP is limited to the sales people otherwise known as agents. A flowchart of the ACRMSP use is in Figure 5. A flowchart of a sample ACRMSE process is in Figure 6.
Figure 5 Flowchart of the ACRMSP Automation Workflows in Business
Serving as Case Study
The EVP described the firm as very decentralized, which he further described as management does not micromanage its employees. He further clarified
the agents and the members of the service staff know what has to be done to complete the job and they are expected to complete their tasks with little supervision. The EVP also stated the agency is equally focused on sales and service which O’Reilly and Tushman (2004) described as organizational ambidexterity. The firm splits these duties by making its salespeople responsible for sales and only giving them access to the ACRMSP and not to the ACRMSE. The firm finally makes the service people responsible for providing and completing daily service requests by giving them access to the ACRMSE but not the ACRMSP.

As stated above, the firm has an off the shelf ACRMSP which is used solely by the sales people hereinafter referred to as agents. The state of Florida requires agents have a professional license in order to solicit and sell insurance to the public. According to the state of Florida CFO Website in order to qualify for an agent’s license a person must complete a 200 hour course and then pass a proctored examination administered by the Florida Department of Insurance. To maintain the license an agent must complete 20 hours of continuing education every two years.

The other system is the off the shelf ACRMSE which is used by the service people (CSR). The state of Florida requires a CSR obtain a professional license to service insurance policies for the public. According to the state of Florida CFO Website to qualify for the CSR license a person must either have a degree or professional designation in insurance or complete a 40 hour course and pass a proctored examination administered by the Florida Department of Insurance. To
maintain the license a service person must complete 20 hours of continuing education every two years.

The licensing requirements as well as the continuing education requirements for agents and CSRs can act as a barrier to entry in the insurance business. This barrier to entry can act as an isolating mechanism thus possibly protecting a competitive advantage (Rumelt, 1984).

**Demographics of the Case Firm**

The firm serving as the case for this study had 30 employees of which 27 are users of the ACRMS, at the time the study was completed. The firm has 8 total males of which 7 use the ACRMS and 22 females of which 20 use the ACRMS. At the time of the interviews the firm employed 5 licensed sales people, and 22 licensed service personnel, and had 5 managers including the EVP. Some of the management personnel also have other duties and are included in more than one category, however, for purposes of this study they are classified as managers.. For instance in addition to management responsibilities the EVP is also an agent. Turnover at the firm averages around 10% per year according to the EVP of the office. During 2017 and 2018 all employee turnover was voluntary according to the EVP.
The formal interview sample was comprised of 11 females and 2 males. The EVP sent every employee in the office an email with a voluntary sign-up interview sheet. The sheet had 16 time slots for interviews during one week in October 2018. Thirteen people signed up to be interviewed of which 2 were male and 11 were female. However, one of the interviews took place in November since the volunteer was scheduled to be on vacation out of the country during the week the original round of interviews were to be conducted. In addition an unplanned informal interview was conducted off site with an SME on the firm.

Figure 7 is information about the firm serving as the case study.

**INFORMATION ON CASE FIRM**

1. Total # of Employees 30  
   ACRMS Users 27  
2. Males 8  
   Females 22  
3. Sales 5  
   Service 22  
   Management 5  
4. Turnover 10%  
5. Voluntary Turnover 10%  
6. Involuntary Turnover 0%  
7. Revenues $5Million to $10Million  
8. Average Growth Rate 15%  
9. Hit Ratio on 35%  
10. Retention Ratio 90%

*Figure 7 Demographics of the Firm*
Performance of the Case Firm

Every year the IIABA in conjunction with the insurance agency consulting firm Reagan Consulting publish the Best Practices Study to enable insurance agencies to benchmark performance criteria against the best in class agencies in its peer group. Since the firm serving as the case is privately owned access to the performance statistics such as financial statements was not allowed. However, the EVP of the business serving as the case for this study did give enough information in an interview with the researcher, to allow the researcher to compare performance of the firm with those in the Best Practices Study. The firm serving as the case performs at the same level or better than the best of the best performing firms of a similar size. The firm serving as the case is in an industry with over 36,000 (Insurance Information Institute, Inc., 2019) other firms. The firm serving as the case is part of the sixty fifth largest insurance agency firm in the United States (Business Insurance, 2019). Figure 8 shows a comparison between the firm serving as the case which is the Orlando, FL office only against the best practices agencies in its peer group in the United States.
### Figure 8 Performance of Case Firm vs. Best Practices Agencies in Peer Group

**Category Annual Revenue between $5Million and $10Million**

<table>
<thead>
<tr>
<th>Category</th>
<th>CASE FIRM</th>
<th>BEST PRACTICE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rev/EE</td>
<td>&gt;$166,667</td>
<td>$175,966</td>
</tr>
<tr>
<td>Agent Avg Book</td>
<td>&gt;$1,000,000</td>
<td>$549,394</td>
</tr>
<tr>
<td>Organic Growth Rate</td>
<td>15.00%</td>
<td>12.10%</td>
</tr>
<tr>
<td>#EEs</td>
<td>30</td>
<td>42.4</td>
</tr>
<tr>
<td>#Agents</td>
<td>5</td>
<td>13.8</td>
</tr>
<tr>
<td>#Service</td>
<td>22</td>
<td>24.3</td>
</tr>
<tr>
<td>#Admin</td>
<td>3</td>
<td>4.3</td>
</tr>
</tbody>
</table>
Chapter 4: 
Findings

Introduction

This study is to determine how organizational culture serves as an antecedent to the formation and use of a dynamic capability. This study uses BDA as an example of a firm specific dynamic capability. It further uses an ACRMS as a specific type of BDA to serve as the example of a dynamic capability.

This chapter reveals responses from thirteen structured recorded interviews with staff members of the firm serving as the case, and compares responses with demographic data of the interviewees as well as those of the firm as a whole, to explore the research question. In addition, responses from an unstructured unrecorded interview with an SME on the firm, as well as performance data provided by the current EVP of the office, and publicly available information about the firm serving as the case are also revealed in this study, although none of these additional sources of information are included in the data from the structured interviews.

This chapter will also examine the process of analyzing the data including the process of pattern matching to develop consistent patterns of answers otherwise
known as correspondence (Stake, 1995) in search of explanations to the results of the data. The pattern matching process of developing correspondence will be explained. Finally the data will be synthesized and summarized.

Profile of Interview Sample

The EVP of the firm serving as the case facilitated in recruiting participants to interview for this study. The researcher met with the EVP and at the request of the EVP the researcher prepared and delivered a sign-up sheet with 16 time slots available for one week in October with four interviews slots available daily from Monday through Thursday, with two in the morning and two in the afternoon. Thirteen of the employees of the case firm including the EVP voluntarily signed up to be interviewed. However, one of the interviews was conducted in November since one of the volunteers was scheduled to be on vacation and out of the country during the week the interviews were scheduled to be conducted. In addition the researcher interviewed an SME of the firm informally off site and took extemporaneous notes upon completion of the meeting.

The firm serving as the case had 30 employees, of which 27 people use the ACRMS at the time the interviews took place. Therefore the researcher was able to formally interview 43% of the total employees, and 48% of ACRMS users. Two of the eight males at the case firm were interviewed which represents 25% of total
male employees, and two of 7 male ACRMS users, which is 29%. There are 22 females employed at the firm and the researcher interviewed 11 for a total of 50% of female employees, and 20 female ACRMS users or 55%. In addition there are 5 management employees and 2 were interviewed including the EVP or 40%. The management personnel also perform other duties at the firm. For instance the EVP is classified in both sales and management. However, for purposes of this study, they are classified as management. Figure 9 shows the demographic data of the interviewees.

**DEMOGRAPHIC DATA OF INTERVIEWEES**

<table>
<thead>
<tr>
<th>Industry Tenure</th>
<th>Company Tenure</th>
<th>Position</th>
<th>Gender</th>
<th>Participant #</th>
</tr>
</thead>
<tbody>
<tr>
<td>44</td>
<td>40</td>
<td>Service</td>
<td>F</td>
<td>801</td>
</tr>
<tr>
<td>&lt; 1 year</td>
<td>&lt; 1 year</td>
<td>Service</td>
<td>F</td>
<td>802</td>
</tr>
<tr>
<td>29</td>
<td>4</td>
<td>Service</td>
<td>M</td>
<td>803</td>
</tr>
<tr>
<td>6</td>
<td>&lt;1 year</td>
<td>Service</td>
<td>F</td>
<td>804</td>
</tr>
<tr>
<td>3</td>
<td>1</td>
<td>Service</td>
<td>F</td>
<td>805</td>
</tr>
<tr>
<td>39</td>
<td>13</td>
<td>Service</td>
<td>F</td>
<td>806</td>
</tr>
<tr>
<td>40</td>
<td>&lt;1year</td>
<td>Service</td>
<td>F</td>
<td>807</td>
</tr>
<tr>
<td>30</td>
<td>15</td>
<td>Service</td>
<td>F</td>
<td>808</td>
</tr>
<tr>
<td>17</td>
<td>3</td>
<td>Management</td>
<td>F</td>
<td>809</td>
</tr>
<tr>
<td>30</td>
<td>7</td>
<td>Service</td>
<td>F</td>
<td>810</td>
</tr>
<tr>
<td>25</td>
<td>20</td>
<td>Service</td>
<td>F</td>
<td>811</td>
</tr>
<tr>
<td>18</td>
<td>15</td>
<td>Management</td>
<td>M</td>
<td>812</td>
</tr>
<tr>
<td>8</td>
<td>2</td>
<td>Service</td>
<td>F</td>
<td>813</td>
</tr>
</tbody>
</table>

*Figure 9 Demographics of Interviewees for Case Study*
Organizational Culture of the Case Firm

Denison (1996) defined organizational culture as “the deep structure of organizations, which is rooted in the values, beliefs, and assumptions held by organizational members” (p. 624). The values, beliefs, and assumptions of the members of the firm comprising this case study will be analyzed by using the competing values framework (CVF) (Quinn & Rohrbaugh, 1983). The CVF divides organizational culture into four types, clan, market, adhocracy and hierarchy depending on which of these types the firm is most focused (Quinn & Rohrbaugh, 1983).

Quinn and Rohrbaugh (1983) determined the clan culture is identified by a focus on its people, teamwork and developing its staff. Clan firms are internally focused and flexible in structure. Statements by the interviewees which include words and phrases such as teamwork, training and development, trust, respectful, support or supportive, and employee involvement will be coded to the clan culture (Quinn & Rohrbaugh, 1983; Schneider et al., 2013). Eleven of the thirteen or 85% of the people interviewed used words and phrases which indicate a clan type organizational culture.

If the firm has a culture of adhocracy it is focused externally and is flexible in structure (Quinn & Rohrbaugh, 1983). Adhocracy firms are usually innovative (Quinn & Rohrbaugh, 1983). Statements by interviewees which include the phrases
or words such as flexibility, risk taking, or creativity will be coded to the adhocracy culture (Quinn & Rohrbaugh, 1983; Schneider et al., 2013). None of the interviewees made comments with any of the words or phrases which indicate an adhocracy culture.

A firm which possesses a market culture is focused on results and achievement (Quinn & Rohrbaugh, 1983). Firms with a market culture are externally focused and have a control structure. Phrases or words such as meeting goals, new sales, competitiveness and efficiency are coded to a market culture (Quinn & Rohrbaugh, 1983; Schneider et al., 2013). Ten of the thirteen or 77% of the people interviewed used words or phrases which indicate a market type organizational culture.

Firms which focus internally and are structured for control are considered to have a hierarchy culture (Quinn & Rohrbaugh, 1983). If any of the interviewees use phrases or words such as routine formal procedures, efficiency and control then the coding will be a culture of hierarchy (Quinn & Rohrbaugh, 1983; Schneider et al., 2013). Quinn and Rohrbaugh (1983) stated firms with a hierarchy culture have determined stability is the overriding desire of the firm. Two people or 15% of the interviewees used a phrase which indicates a hierarchy culture.
Clan Culture

Eleven of the thirteen which is 85% of the people interviewed, used words or phrases which describe a clan like organizational culture of the firm serving as the case. The theory behind a clan type culture is the staff will perform better when they feel they are valued and trusted by the firm (Quinn & Rohrbaugh, 1983). A clan type culture stresses teamwork, values and develops its staff in an effort to keep the staff satisfied and employed, and to meet the organizations goals (Quinn & Rohrbaugh, 1983). Teamwork is the output produced by a group of people working in tandem to accomplish a goal (Stout, Salas & Fowlkes, 1997; Marks, Zaccaro & Mathieu, 2000; DeChurch & Mesmer-Magnus, 2010). Some of the comments concerning teamwork are in Figure 10.

<table>
<thead>
<tr>
<th>Participant</th>
<th>Excerpt</th>
</tr>
</thead>
<tbody>
<tr>
<td>804</td>
<td>“It’s wonderful, everyone in here works as a team”</td>
</tr>
<tr>
<td>806</td>
<td>“We work very well together backing each other up”</td>
</tr>
<tr>
<td>810</td>
<td>“We’re very team oriented”</td>
</tr>
<tr>
<td>812</td>
<td>“I think we’ve got a good vibe going”</td>
</tr>
</tbody>
</table>

*Figure 10 Sampling of Teamwork Responses*
Morale is another component of a clan type culture (Quinn & Rohrbaugh, 1983). Morale is the employee’s attitude and satisfaction at work (Harter, Schmidt, & Hayes, 2002; Arunchand & Ramanathan, 2013). Figure 11 shows comments made by several interviewees concerning their perspective on the morale of the firm.

<table>
<thead>
<tr>
<th>Participant</th>
<th>Excerpt</th>
</tr>
</thead>
<tbody>
<tr>
<td>802</td>
<td>“we’re very welcoming and opening”</td>
</tr>
<tr>
<td>807</td>
<td>“they like to have fun”</td>
</tr>
<tr>
<td>810</td>
<td>“the culture I find to be much more people friendly, it’s very people oriented”</td>
</tr>
<tr>
<td>810</td>
<td>“we’re all respectful of each other”</td>
</tr>
</tbody>
</table>

**Figure 11 Sampling of Morale Responses**

Clan cultures are also identified as being decentralized in nature (Quinn & Rohrbaugh, 1983). Decentralized organizations are firms where the decision making is made at the local level as opposed to the home office of the firm (Schondube-Pirchegger & Voight, 2017). The firm serving as the case is a branch office headquartered in another state and the EVP of the local office makes many business decisions such as staffing, expenses and vendors for the case firm, plus works with local supervisors and distant senior management at headquarters. Figure 12 reveals several comments concerning the decentralized nature of the firm.
<table>
<thead>
<tr>
<th>Participant</th>
<th>Excerpt</th>
</tr>
</thead>
<tbody>
<tr>
<td>801</td>
<td>“they do their jobs with little supervision”</td>
</tr>
<tr>
<td>801</td>
<td>“if we weren’t performing then home office would be on our case”</td>
</tr>
<tr>
<td>807</td>
<td>“there’s no one looking over your shoulder… if you’re responsible to get your work done and get it done”</td>
</tr>
<tr>
<td>812</td>
<td>“we’re pretty decentralized”</td>
</tr>
</tbody>
</table>

**Figure 12 Sampling of Decentralized Responses**

Training and development of the staff is another key element of a clan type organizational culture. The responses on the formal training were mixed with mostly negative comments concerning the formal training program and mostly positive comments concerning the informal training program from participants who had long tenures in the industry, and mostly positive comments from management personnel and new employees in either industry or new with the firm. Formal training and development is when the firm sponsors training which is firm and job specific to the employees of the firm (Hatch & Dyer, 2004). Informal training is when employees share knowledge gained from experience with the firm with other employees (Lee, 1997).

The people who made negative comments about the formal training program had a minimum of 29 years of industry tenure. Negative comments made concerning the formal training program are in Figure 13.
<table>
<thead>
<tr>
<th>Participant</th>
<th>Excerpt</th>
</tr>
</thead>
<tbody>
<tr>
<td>803</td>
<td>“I’m still waiting on it.”</td>
</tr>
<tr>
<td>807</td>
<td>“a waste of time”</td>
</tr>
<tr>
<td>808</td>
<td>“the trainer is not really a trainer…call and say…can you help me with this…she’ll just say I did it for you… you don’t need to know that”</td>
</tr>
<tr>
<td>810</td>
<td>“training is rather lackluster”</td>
</tr>
</tbody>
</table>

**Figure 13 Sampling of Formal Training Negative Responses**

The people who made positive comments concerning the formal training program were either new to the industry with only one of them having more than 10 years of industry experience, or new to the firm with the longest firm tenure being three years, or were in management positions with the firm. Positive comments concerning the formal training program are in Figure 14.

<table>
<thead>
<tr>
<th>Participant</th>
<th>Excerpt</th>
</tr>
</thead>
<tbody>
<tr>
<td>802</td>
<td>“Training is great.”</td>
</tr>
<tr>
<td>804</td>
<td>“I have received training from Texas over the phone…I think it’s very good”</td>
</tr>
<tr>
<td>805</td>
<td>“…when I first started here … there was another lady working there that trained me…she’s super helpful”</td>
</tr>
<tr>
<td>809</td>
<td>“…you have to be able to learn from support via phone and internet instead of all one on one”</td>
</tr>
</tbody>
</table>

**Figure 14 Sampling of Formal Training Positive Responses**

The informal training program had positive comments from people who had industry tenure ranging from three to over forty years, and company tenure from one to forty years. Comments about the informal training program are in Figure 15.
<table>
<thead>
<tr>
<th>Participant</th>
<th>Excerpt</th>
</tr>
</thead>
<tbody>
<tr>
<td>801</td>
<td>“So a lot of the learning it’s we've been self-taught. You know trial and error you go in and you do this OK”</td>
</tr>
<tr>
<td>805</td>
<td>“So you sort of have to teach yourself at that point you sort of have to find work arounds to things that used to be this way. Now you've got to do it this way so you have to figure that out by yourself”</td>
</tr>
<tr>
<td>806</td>
<td>“Me and my backup buddy first started doing this we both kind of figured out how to do it by ourselves. And then when we ran across something that we absolutely did not know what to do with it we would call someone and sometimes they'd go oh good question. Can't believe that hadn’t come up before.”</td>
</tr>
<tr>
<td>808</td>
<td>“So it is kind of trial and error. You know and talking amongst each other. How did you figure out how to do this and....”</td>
</tr>
</tbody>
</table>

*Figure 15 Sampling of Informal Training Responses*

**Market Oriented Culture**

Ten of the thirteen interviewees or 77% of those interviewees included words or phrases which describe a market culture. Firms with market cultures are described as being focused on accomplishing the goal, and being productive (Quinn & Rohrbaugh, 1983). Goal oriented people are driven to meet or exceed the goal or objective (Payne, Youngcourt & Beaubien, 2007). Productivity in sales is making the sale (Chung, Steenburgh & Sudhir, 2014). Since a goal oriented focus and productivity are closely related the responses by the interviewees concerning goal oriented and productivity are in Figure 16.
<table>
<thead>
<tr>
<th>Participant</th>
<th>Excerpt</th>
</tr>
</thead>
<tbody>
<tr>
<td>801</td>
<td>“Everybody. Has a belief in the common goal and everybody's working to get there… You know, we…are happy when people write business we're sad when people lose business.”</td>
</tr>
<tr>
<td>803</td>
<td>“They give you the tools to work. And there it is. Go do it go do it.”</td>
</tr>
<tr>
<td>812</td>
<td>“…as long as the producers are putting up a number that we… that makes sense for us then we're pretty okay with that. So I'd say overall we’re… We do try to focus on our mission of customer service, try to be a little bit more hands on as…as an agency than some of our competitors.”</td>
</tr>
</tbody>
</table>

**Figure 16 Sampling of Goal Oriented Responses**

**Hierarchical Culture**

Two out of the thirteen interviewees or 15% used words and phrases which describe a hierarchical culture. A hierarchical culture is focused on efficient performance of routines to gain predictable and steady results (Quinn and Rohrbaugh, 1983). Figure 17 gives a summary of some of the comments which indicate the culture contains hierarchical elements.
<table>
<thead>
<tr>
<th>Participant</th>
<th>Excerpt</th>
</tr>
</thead>
<tbody>
<tr>
<td>807</td>
<td>“I mean I have to get things done around certain time frames because the workload is spread amongst many people. Handling it you have the time to focus on what you're supposed to be doing and get them done on time.”</td>
</tr>
<tr>
<td>808</td>
<td>“They are very in the box oriented. “</td>
</tr>
<tr>
<td>808</td>
<td>“Meaning that Everyone has their set of duties. You don't go into someone else's. You know. There's stuff in your box. So each person does like one step of a process. Which is a little disconcerting because too many hands in the pot.”</td>
</tr>
</tbody>
</table>

**Figure 17** Sampling of Hierarchy Responses

**Pattern Matching**

Stake (1995) and Yin (2018) stated pattern matching is one method of data analysis for case studies. Stake (1995) opined pattern matching involves finding consistency in responses. Yin (2018) determined patterns might develop in studies which seek to explain why or how a case functions in a certain manner. Following Stake (1995) and Yin (2018) pattern matching will be the method used to code and analyze the data by searching for words or phrases which match the characteristics
of each of the competing values framework as developed by Quinn and Rohrbaugh (1983).

Using pattern matching method (Stake, 1995; Yin, 2018) provides supports for the culture being a combination of clan and market based according to the CVF (Quinn and Rohrbaugh, 1983). 85% of those interviewed used words and phrases which described a clan like culture. 77% of those interviewed used words and phrases which described a market focused culture.

15% of those interviewed stated the culture consists of hierarchal components. Using pattern matching method (Stake, 1995; Yin, 2018) the other participants used words and phrases which could describe a hierarchical culture, however, they framed it a manner which describes a clan culture. For instance, participant 801 stated there are a dedicated person to do certain tasks so it enables people in a senior service position to do the customer contact work on their assigned accounts. Participant 806 stated the job assigned to the junior service person is processing service requests which are assigned from the senior service representatives. These responses indicate the structure of the firm is hierarchical but based on the patterns revealed in the data the employees view the firm as having a clan or team like organizational culture.

Hartnell, Ou and Kinicki (2011) in an empirical study of the competing values framework determined firms which have a combination of organizational cultures performs better than firms with only one predominant culture since these
different cultures work in tandem and not in opposition to each other. Aligning the strategy and culture of the firm is vital in the effort to obtain a competitive advantage for a firm (Hartnell et al., 2011).

**Personality Profiling Prior to Hiring**

As part of the hiring process every interviewee with the firm is given a personality profile which is analyzed and interpreted by a corporate psychologist (Orlando Business Journal, 2014). The EVP of the firm stated in his interview “Typically we can have… we do have a testing process that we use… so that you know kind of gives us the feedback of what we see in the person. Is that really what we're getting?” Using a personality profile has been shown to be a valid predictor of whether or not a potential hire will fit with the firm based on the organizational culture and the potential hire’s personality (Judge & Cable, 1997; Slaughter, Zickar, Highhouse & Mohr, 2004).

Job aptitude or the skills required to complete the work, and attitude which can be measured using a personality profile, combine to play a significant role in team success or failure (Rodriguez Montequin, Mesa Fernandez, Balsera & Garcia Nieto, 2013). Appearing to support the findings of Rodriguez Montequin et al. (2013) in response to the question “…if it’s someone you want to hire but they don’t fit the profile do you go any further with them…? The EVP answered “…We can but that sort of then falls on me and trying to make a recommendation to (CEO
at home office) to say we're going to buck the system on the testing. Do we want to do that? And you can do that but obviously if it doesn't work out (the CEO is) going to come back and say this is why we have test so…” When asked about what happens when someone is hired who does not fit the culture? The EVP responded “…I mean we've had instances where people don't fit the culture…mainly producers (agents) and … we've made agreements with them to go on their separate ways whether we sell them their book or terminate them or what have you…” He further replied concerning the service people “…if they don't fit in culturally then we’ll move on…”

**Hiring for the Next Generation**

The average age of insurance industry personnel is 45 (Emek, 2018). Approximately 400,000 insurance workers are expected to retire in the near future according the US Bureau of Labor Statistics (Johnson, 2017). Less than 5% of the millennial generation is interested in a career in insurance according to a study by a major insurance company (Emek, 2018). The consulting firm Deloitte in a report written in 2018 stated in order to attract talent to the industry firms should build a culture which matches its strategy and the strategy should be one which potential employees find attractive.

The firm serving as the case is proactively recruiting and hiring new and younger people to the organization. In her interview participant 801 stated “He's
(the EVP of the firm serving as case) hired some really good young guys, good hires and is going to hire more”. One of the younger people interviewed (participant 809) stated “… I do like how we are trying to… we are purposefully interviewing for longevity… not just a cattle call… we are bringing in a younger group and by no means are they young but I mean they’re a young adult. And I think that that is going to perpetuate this company... if there's a younger group already here and then you know the younger group is the ones kind of telling their side of how it really feels. I think it's going to be very desirable…” Participant 809 also said she thinks the culture of the firm is “… progressive… and flexible” which supports the clan like culture.

ACRMS in the Case Firm

According to the researchers interview with the EVP the firm has two ACRMS systems its employees use to perform work duties. Access to the ACRMSP is limited to the agents. The ACRMSP is used to track the sales process from the initial contact made by the agent through completing the sale. The ACRMSP is not monitored by management of the firm, which supports the clan organizational culture of the firm, since the agents are trusted to use the ACRMSP correctly (Quinn & Rohrbaugh, 1983).
The ACRMSE is used by the service people to process service requests by the customers from the initiation of the service request through completion of the task. The order in which service requests are worked on by the CSR are left up to the CSR and management monitors the progress of the service requests monthly to ensure these tasks are completed in a timely fashion. This supports the clan and market organizational culture of the firm. The clan culture is supported by allowing the CSR to work in the manner which they control, and the monthly monitoring of tasks in process to measure completion of the tasks supports the market organizational culture which favors productivity and task completion (Quinn & Rohrbaugh, 1983).

**Pattern Matching**

Analyzing the comments about the ACRMSP and ACRMSE followed the process of pattern matching described by Stake (1995) and Yin (2018) as a method of data analysis for case studies. The words and phrases which were used most often to describe the ACRMSP and ACRMSE were ease of use of the systems, single entry with the different software programs, and connectivity problems with the automation systems due to the firm being remote from headquarters.

Twelve of the thirteen or 92% of participants described the ACRMS system as easy to use and it meets the needs of the firm and enables the user complete their tasks more efficiently. Five of the thirteen or 38% of the interviewees specifically
mentioned the differences between the ACRMSP and ACRMSE and communication between the two systems. The ACRMSP is used by the agents as an automated data management system to track their sales activities and the ACRMSE is used by the CSRs as an automated data management system to process and track service requests. Agents are the only people allowed access to the ACRMSP and the ACRMSE is used only by the service staff of the firm. Any service requests from a customer or from an insurance company concerning a customer of the firm are entered into the ACRMSE and progress on the request is tracked until it is completed and the request is closed in the system. Figure 18 lists some of the comments about the ease of use and functionality of the ACRMS systems. Comments concerning the single-entry communication between the ACRMSP and ACRMSE are in Figure 19.

<table>
<thead>
<tr>
<th>Participant</th>
<th>Excerpt</th>
</tr>
</thead>
<tbody>
<tr>
<td>803</td>
<td>“I think it's amazing… I think what they have is very involved which is needed for an agency this size.”</td>
</tr>
<tr>
<td>807</td>
<td>“It's easy for a computer and it's just figuring out where the information has to go.”</td>
</tr>
<tr>
<td>808</td>
<td>“It's easy to use”</td>
</tr>
<tr>
<td>811</td>
<td>“…I think that's pretty amazing. And everything is there … that to me makes it easy…”</td>
</tr>
</tbody>
</table>

*Figure 18 Sampling on Ease of Use Responses*
<table>
<thead>
<tr>
<th>Participant</th>
<th>Excerpt</th>
</tr>
</thead>
<tbody>
<tr>
<td>801</td>
<td>“producers use ACRMSP. They put everything into ACRMSP then those apps get sent to marketing somehow”</td>
</tr>
<tr>
<td>807</td>
<td>“I think they have ACRMSP for their system. It integrates with ours”</td>
</tr>
<tr>
<td>808</td>
<td>“I think (ACRMSP) is what it is. and then I think that. Our people can pull that into (ACRMSE) I'm not real sure how that works”</td>
</tr>
<tr>
<td>809</td>
<td>“It’s single entry it does communicate between the two. But they are only given limited access to (Virtual File Cabinet) so they don't meddle in my department’s stuff. “</td>
</tr>
<tr>
<td>812</td>
<td>“(ACRMSP) and we use (Email, spreadsheets, and Word Processing) we don't really use (ACRMSE) which is our main customer service… and then it should all be there when you go to renew the apps should be prefilled and all that.”</td>
</tr>
</tbody>
</table>

**Figure 19 Sampling of Single Entry Communication Between All Software Systems Responses**

This research study limited out the topic of functionality, features, uses and benefits from the hardware and software of the ACRMS. However, several participants made comments concerning features they liked or did not like about the ACRMS. I have included a brief sample here for context purposes.

The firm serving as the case is a branch office of a multistate regional insurance agency. The automation systems used by the case firm are connected through the home office in another state. Seven of 13 or 54% of the interviewees stated the biggest issue with the automation systems revolved around the connectivity issues with the home office. Five of the thirteen or 38% of respondents made positive comments concerning having 3 computer monitors on their desk with which they could drag and drop between the email system, the virtual file
cabinet and the ACRMSE and ACRMSP, and 6 out of 13 or 46% of the respondents mentioned the ease of use of the virtual file cabinet. Comments concerning connectivity issues are in Figure 20. The participant’s comments concerning the functionality of having three computer monitors on their desk are in Figure 21. The responses by the interviewees concerning the ease of use of the virtual file cabinet are in Figure 22.

<table>
<thead>
<tr>
<th>Participant</th>
<th>Excerpt</th>
</tr>
</thead>
<tbody>
<tr>
<td>801</td>
<td>“we’re totally electronic if we don't have the computers we can’t do anything”</td>
</tr>
<tr>
<td>804</td>
<td>“…highly reliant on computers and when the computer goes down, they all go down”</td>
</tr>
<tr>
<td>805</td>
<td>“Computer systems are a little iffy sometimes…Some days, it’s absolutely awful.”</td>
</tr>
<tr>
<td>806</td>
<td>“I love the system we have when it works. “</td>
</tr>
<tr>
<td>807</td>
<td>“The one here at (Firm). It sucks So I shut it all down… reboot…And then I tend to wait at that point to clock in before I go back into Citrix again because I'm afraid they get booted out”</td>
</tr>
<tr>
<td>810</td>
<td>“when it's working”</td>
</tr>
<tr>
<td>813</td>
<td>“It seems like we you know we've had some at times we have some…some serious computer issues right now”</td>
</tr>
</tbody>
</table>

Figure 20 Sampling of Connectivity Issues Responses
Partici pant Excerpt
803 “we all have 3 screens”
807 “I love three screens”
808 “you can actually drop and drag or…or create forms”
810 “having three monitors is a tremendous help.”
811 “I love the three screen things. I think that's amazing.”

Figure 21 Sampling of Having Multiple Monitors at Work Station Responses

Figure 22 Sampling of Ease of Use of Virtual File System Responses

Organizational Culture and ACRMS in the Firm

According to the EVP of the firm the organizational culture supports using the ACRMSP and ACRMSE. During his interview the EVP said “The culture is to get it all into the system and then it should all be there… when you go to renew the
apps should be prefilled and all that.” The firm switched from an ACRMSP which gave management the ability to track compliance on the agent’s part of putting all sales activities in the system to another ACRMSP which does not give management the ability to track sales activities. Participant 801 stated about the use of the ACRMSE by the people in the firm “…the applications are in there … the data is in there…” Participant 803 stated about use of the ACRMSE “…I probably use it more than anyone else because of my background. I mean I’d label everything I mark everything I do color coding, I do all kinds of stuff where other people, when I get in there and look at it, gosh I wish they labeled this…”

However, there were some minor differences between the perception of management and the actual performance of the employees as it pertains to inputting all required information in the ACRMSP and ACRMSE. One possible explanation is employee resistance to use of the ACRMSP and ACRMSE as indicated in some of the interviews. Reger, Gustafson, DeMarie, and Mullane (1994) determined employee resistance is the difference between where the firm is currently and where management wants to lead the firm. According to the EVP “…that sort of goes back to sort of the decentralized nature of us… part of the reason … signed up for (old ACRMSP) …five six years ago is the ability to track producer (agents) activity. Obviously producers (agents) weren’t using it. It wasn’t a very good system for insurance… So we spent all this money on old ACRMSP. Producers
(Agents) weren’t using it. Why are we spending the money? If we’re writing business the other way, then what are we worried about”.

Another possible explanation for failure to input all information in the ACRMSE is a poor formal training program and reliance on informal training, based on the responses from some of the interviewees. An informal training program can result in differences in the information being transferred depending on the experience of the person training and depth of information passed to the trainee (Argote & Ingram, 2000). Participant 803 stated “Lack of standards… but they don't enforce it across the board.” Participant 807 stated “…But I find that the more information I put in the easier it’s going to be to find later. So for example if I get underwriting information I’m going to be descriptive in my comment on my ACRMSE and virtual filing cabinet of what the email was. If somebody just attaches it and says underwriting information I’ve got to open it and read it to see what it was. So I try to be more detailed so it’s easier to find later.”

100% of the participants stated they use the ACRMS to accomplish all tasks associated with their individual job. In addition 100% of the participants stated they perceived every employee of the firm using the ACRMS to accomplish all of their work tasks. Therefore it is supported the organizational culture serves as an antecedent to the use of the ACRMS.
ACRMS and Dynamic Capabilities in the Firm

The next step is to determine if the ACRMS used in the firm is a dynamic capability. The characteristics of the ACMRS will be compared to the characteristics of dynamic capabilities according to the definitions of Teece et al. (1997), Eisenhardt and Martin (2000), and Teece (2014).

According to the EVP the ACMRS is a homogeneous system purchased from one of the major insurance agency automation system vendors. The ACRMS does possess a few heterogeneous applications; however, for the most part it is the standard homogeneous system sold by the vendor according the EVP.

According to the definition of Teece et al. (1997) a dynamic capability is the ability of the firm to strategically reconfigure its firm specific, heterogeneous, difficult to imitate capabilities in response to changes in the business environment, possible leading to a SCA. Since the ACRMS is a homogenous system it does not fit the definition of a dynamic capability according to the definition of Teece et al, (1997). The homogeneous ACMRS is easily imitated and cannot lead to a sustained competitive advantage. Therefore, there is no support for the ACRMS being a dynamic capability according to the definition of Teece et al. (1997).

Eisenhardt and Martin (2000) conceptualization of dynamic capabilities is the ability to strategically reconfigure in response to market changes more homogeneous capabilities with some idiosyncratic capabilities similar to a best
practice which can lead to a temporary competitive advantage. The ARCMS in the firm fits the Eisenhardt and Martin (2000) definition since it is a homogeneous system with some idiosyncratic features. However, for the firm to strategically reconfigure its ACRMS system in response to market changes would require an investment of money and management time to determine the appropriate solution. There is support for the ACRMS serving as a dynamic capability according to the Eisenhardt and Martin (2000) conceptualization.

Teece (2014) extends the Teece et al. (1997) definition of dynamic capabilities by adding the ability of management to sense opportunities, seize of the identified opportunities and then to reconfigure firm specific capabilities to exploit the opportunities with the possible result being an SCA. The ACRMS does not fit this definition for the same reason it did not fit Teece et al. (1997). Although the ACRMS does allow management to sense opportunities based on the information in the ACRMS it does not allow management to seize the opportunities or reconfigure capabilities to capture value from the identified opportunities since the ACRMS is a homogeneous easily imitated system. Thus, there is no support for the ACRMS serving as a dynamic capability according to the definition of Teece (2014).
Pattern Matching for Rival Explanations

Two or 15% of the interviewees felt the culture of the firm was hierarchical. The comment made by participant 808 had to do with the division of labor among the service people when she stated “Everyone has their set of duties… you don’t go into someone else’s…” and “…very in the box oriented...” Participant 807 stated “…I have to get the work done around certain time frames because the workload is spread amongst many people…”

However, other interviewees such as participant 806 said “‘we work well together backing each other up...” Participant 801 stated “…I take that e-mail and I turn it into a task…send it through to our e-mail to (Virtual Filing Cabinet)... then I give her.... She does the endorsement request... So it’s a very good process... So really what I'm focused on is talking to the clients on a daily basis emailing them whatever with their needs and then doing the renewal submissions...” Participant 807 admitted in support of the clan culture as opposed to the hierarchy culture with her previous comments “…here I’m doing a little piece...and everybody else does all the other work...less stress...” It can be inferred by the firm splitting the service process into different people for different tasks supports the clan culture of teamwork versus the hierarchy culture. This inference is based on 85% of the interviewees using language to support the clan culture versus 15% supporting the hierarchy culture.
One employee or 8% of those interviewed disagreed with the others concerning morale at the firm. Participant 811 who has over 20 years tenure with the firm, stated “It’s not as cohesive as it was years ago”. When asked to explain why she felt that way participant 811 stated “We've lost so many people in the last couple of years and it just seems like there's just it's not there anymore. Nobody wants to do anything…” When asked why people had left the firm she said many had retired.

It can be deduced morale at the firm is not as low as Participant 811 perceives it to be since she is the only participant to comment on morale negatively. She did state she is approaching retirement age and many of the people who had left retired, plus she stated she is a recent widow so her perceptions of poor morale at the firm could be the result of the recent tragedy of losing her long time husband. For instance, participant 801 who has over 40 years tenure with the firm and is in the same age group as Participant 811 stated “everybody gets along …it’s a great place to work, it’s totally different atmosphere than it used to be”.

Based on the above responses there is support for the firm structure being hierarchical (Quinn and Rohrbaugh, 1983) since it was clear each job in the firm has specific duties to which it is assigned. The respondents also said they do not do tasks assigned to other people. In spite of the firm structure being hierarchical the culture is a combination of clan and market (Quinn and Rohrbaugh, 1983) based on the responses. Several respondents stated they worked in teams. For instance
Participant 801 stated the teams are divided into a sales person or agent who only sells to prospects and current clients and only has access to the ACRMSP. In addition, there is a senior CSR, a junior CSR, and a processor on each team. Each service person has specific tasks for which they are responsible and each only has access to the ACRMSE.

**Synthesis of Findings**

Based on the thirteen structured interview’s which represent 48% of the ACRMS users at the firm serving as the case study it can be deduced the firm has a combination of a clan and a market focused organizational culture (Quinn & Rohrbaugh, 1983). The clan culture was indicated by 85% of the interviewees and 77% of the interviewees indicate a market focused culture. Quinn and Rohrbaugh (1983) stated the clan culture is when the firm values its people and the loyalty shown to the people leads to increased commitment to the firm from the staff. The market culture is when the firm focuses on its goals and gains staff buy in on the goals through clear communication of goals and the staff is rewarded when the goals are met (Quinn & Rohrbaugh, 1983). Hartnell et al. (2011) stated firms with an organizational culture which is a combination of clan and market should perform better since these two types of culture work in combination with each other instead of in opposition.
The firm is committed to using technology and eliminating paper in all of its processes according to 100% of the fourteen staff members who were interviewed. According to the EVP of the firm an off the shelf ACRMSP is provided for the agents so they can maintain information and store data on the sales process from the first contact through completion of the sales process. The EVP of the firm also stated an off the shelf ACRMSE is provided for its service people to perform service requests and track the progress from the initial request through completion of the service process. The EVP also stated the firm provides a custom designed automated virtual file cabinet to store all data and information from any and all tasks performed by any agent, CSR or administrative staff member. The firm also provides all employees with an off the shelf email system, word processing and spreadsheet software.

The ACRMS system of the firm has the characteristics of an Eisenhardt and Martin (2000) definition of a dynamic capability. Eisenhardt and Martin (2000) stated dynamic capabilities are more homogeneous with some heterogeneity similar to a best practice. The ACRMS in the firm is more homogeneous since it is an ACRMS system produced by the company which has the largest market share in the insurance agency ACRMS systems industry (Connelly, 2018). However, there is still some heterogeneity in the custom designed and built virtual filing cabinet.

According to 12 of the 13 or 92% of the people interviewed for this study the ACRMS is a good system if you follow the procedures. Half of the interviewees
reported the major impediment to the ACRMS is the system is often down due to connectivity issues since the office serving as the case is remote from the home office.

The ACRMS also has characteristics of a dynamic capability according to conceptualizations of Helfat et al. (2007), Zollo and Winter (2002), Winter (2003) and Helfat and Winter (2011) who stated a dynamic capability is the ability of the firm to reconfigure its capabilities to exploit opportunities, regardless of the results from the reconfiguration. Theoretically both the ACRMSP and ACRMSE possess the data to provide the firm with the information necessary to exploit new markets, new geographical areas, or any other characteristic if it reconfigures its capability through hiring new agents or retraining the current agents to exploit these new opportunities.

However, the ACRMS does not appear to meet the definition of a dynamic capability according to the Teece et al. (1997) and Teece (2014) conceptualizations. Teece et al. (1997) stated a dynamic capability is the firm reconfiguring its idiosyncratic capabilities to gain a sustained competitive advantage. Teece (2014) conceptualized a dynamic capability as being idiosyncratic capabilities combined with firm specific VRINO resources and good strategy as well as being supported by generic capabilities to gain a sustained competitive advantage.

Aligning the strategy and culture of the firm are vital in the effort to obtain a competitive advantage for a firm (Hartnell et al., 2011). According to the EVP the
firm’s goal is to obtain as much new business as possible and maintain the business once it is obtained through providing superior service. Senior management of the firm chose an ACRMS and other automation systems to support the goal according to the EVP.

The organizational culture of the firm is a combination of market focused and clan oriented in support of the goals. It is market focused since the staff knows the goals and work towards accomplishing the goals by using the ACRMS systems provided by the firm, according to 79% of the interviewees. The culture is also clan oriented due to the firm maintaining respect for the individuals and setting up a system of teamwork in the use of the ACRMS systems to assist the staff in reaching the goals according to 85% of the participants.

The ACRMS is being used by the staff and supports the goals of the company through automating the processes used by the firm. The ACRMS is more homogeneous based on being an off the shelf product but still maintains some heterogeneity through the custom designed virtual filing cabinet which is characteristic of a dynamic capability according to Eisenhardt and Martin (2000). The ACRMS also represents the process of reconfiguring firm capabilities through automating sales tracking and service processes and storing data.

Therefore, it appears the organizational culture is an antecedent a dynamic capability according to the definition of Eisenhardt and Martin (2000).

The findings from the analysis of the data are as follows.
ACRMS is a dynamic capability according to the definition of Teece et al. (1997) is not supported.

ACRMS is a dynamic capability according to the definition of Eisenhardt and Martin (2000) is supported.

ACRSM is a dynamic capability according to the definition of Teece (2014) is not supported.

**Validation of Findings**

The findings of this case study were validated by various methods throughout this study. The pilot interview conducted with a principal of an independent insurance agency which was not part of this case study, who is familiar with ACRMSE and ACRMSP systems, resulted in adding additional questions and by following the interview protocols with all participants strengthened the reliability of the study (Gibbert et al., 2008, Yin, 2018). Construct validity is supported by triangulating the data to common themes from different interviewees and data sources (Gibbert, Ruigrok & Wicki, 2008; Yin, 2018; Stake, 1995, 2006; Creswell & Poth, 2018). By following the process of systematic combining by going back and forth between the data and the research literature and allowing the data to speak for itself the preconceived ideas and biases of the researcher were minimized (Dubois & Gadde, 2002).
Supplemental Finding

There was a supplemental finding which arose during the data analysis process. This study was not designed to study organizational culture as a dynamic capability. However, during analysis of the responses from the participants concerning organizational culture a pattern started to appear whereby organizational culture is supported as a dynamic capability according to the definition of Teece (2014).

Teece (2014) stated a strong idiosyncratic organizational culture can be a dynamic capability and support formation of dynamic capabilities and lead to a sustained competitive advantage in a firm. Barney (1986) stated organizational culture can serve as a source of sustained competitive advantage if it is comprised of valuable, rare and imperfectly imitable characteristics. Barney and Hansen (1994) stated organizational culture is comprised of the people in the firm and by matching the people characteristic to the characteristics of the job through a profile can strengthen the culture of the firm. The human resources management system can be a resource for the firm (Wright, McMahan & Williams, 1994); Barney & Wright (1998). When the firm matches the human resources practices to the strategy and culture of the firm it can lead to a sustained competitive advantage (Porter, 1985; Lengnick-Hall, Lengnick-Hall, Andrade & Drake, 2009).
The data from publicly available sources and the interviews revealed the firm uses a personality profile as part of the hiring process. Personality profiles have been found to improve alignment between the employees and the firm (Chatman, 1991; Judge & Cable, 1997; Gibberson, Resick & Dickson, 2005).

Curry and Kkolou (2004) determined when management supports use of the ACRMS resistance is reduced. Resistance to technological change in an organization can be reduced through a strong alignment between employees and the firm (Furst & Cable, 2008). Stanley, Meyer & Topolnytsky (2005) determined firms with open and honest communication can reduce resistance. A clan culture has open and honest communication as a characteristic which can lead to increased loyalty and commitment to the firm from the employees (Quinn & Rohrbaugh, 1983). The market culture also features open and honest communication of goals and expectations with feedback on the progress to meeting the goals (Quinn & Rohrbaugh, 1983). The interviews of the participants revealed they use the ACRMS and they perceive others in the firm use the ACRMS 100% of the time; therefore, employee resistance to the use of the ACRMS has been mitigated by the culture.

Argote and Ingram (2000) and Fiol (1991) determined when the culture supports organizational learning it can gain a competitive advantage. The data from the interviews indicated the employees have a strong informal learning program.
The data from the interviews and publicly available information revealed the organizational culture was built by the founders who are still active in the firm to meet the needs of their customers. The organizational culture is heterogeneous and difficult to imitate since it would require use of a personality profile and a trained professional to interpret the results and similar people to hire. The culture of the firm is focused on doing what is right for the customer according to the data.

The EVP stated the culture was built by the founders of the firm all of whom are still active. They designed the culture to respond to the needs of current and prospective customers. The EVP further stated the culture enables management to sense opportunities through open and honest communication with the staff, and then to seize on the opportunity and reconfigure the firm capabilities to exploit the opportunities.

Therefore there is moderate support for the organizational culture being a dynamic capability according to the definition of Teece (2014).

Summary

This single case study explored organizational culture as a possible antecedent to the use of a dynamic capability exemplified by an ACRMS in a sales and service firm. Organizational culture was examined from the perspective of the CVF (Quinn & Rohrbaugh, 1983). Data from thirteen structured interviews, plus supporting data in the form of performance data provided by the EVP of the firm,
public nonproprietary information about the firm, and one unstructured interview with an SME were examined and analyzed as they related to the organizational culture supporting the use of the ACRMS in the firm. Based on analyzing the data gathered from the various sources it appears there is support for the organizational culture in the firm serving as an antecedent to the continued exploitation of a dynamic capability as defined by Eisenhardt and Martin (2000), but not the definition of Teece et al. (1997) or Teece, (2014).
Chapter 5
Discussion, Implications and Recommendations

Overview

The purpose of this single case study was to examine if and how organizational culture could serve as an antecedent to the continued use of a dynamic capability in a firm. BDA was used as a type of an idiosyncratic dynamic capability and an ACRMS was used as an example of a BDA capability in a firm. To accomplish this research the literature on dynamic capabilities, BDA, ACRMS, and organizational culture were reviewed and explored.

Teece et al. (1997) stated a dynamic capability is the ability of the firm to reconfigure its heterogeneous capabilities to gain a competitive advantage. Eisenhardt and Martin (2000) differed and theorized dynamic capabilities as being more homogeneous in nature with some idiosyncrasies similar to best practices and; therefore, they cannot result in a sustained competitive advantage but may result in a temporary competitive advantage. Helfat et al. (2007), Zollo and Winter (2002), Winter (2003), and Helfat and Winter (2011) all conceptualized dynamic capabilities as being process oriented; in other words a firm possesses a dynamic
capability when it has the ability to reconfigure its capabilities regardless of the actual outcome.

Teece (2014) in response to critiques by other researchers added depth and detail to the original dynamic capability model. In his reconceptualization Teece, (2014) added organizational heritage and management capabilities to firm specific resources and idiosyncratic dynamic capabilities both of which are built by the firm. Teece (2014) then stated generic resources and ordinary capabilities both of which are purchased by the firm, and provide support for the idiosyncratic resources and dynamic capabilities. Then, the firm specific resources and dynamic capabilities are combined with good strategy (Rumelt, 2011) to produce a competitive advantage which in turn is reinvested in the firm which should result in the firm producing more firm specific resources and dynamic capabilities and then the cycle repeats (Teece, 2014).

BDA is the process of extracting valuable information from data the firm possesses and then, in concert with the capability to manipulate the data, use the information to gain a competitive advantage (McAfee & Brynjolfsson, 2012). It takes a strong management team to build the vision, support and culture for a firm specific BDA capability (Barton & Court, 2012). BDA was chosen as an example of a dynamic capability which can lead to a competitive advantage (Teece et al., 1997; Teece, 2014) based on findings by McAfee and Brynjolfsson (2012), Fosso Wamba et al. (2015), Fosso Wamba et al. (2017), Ward (2014), Liu (2015), Bhatt
and Grover (2005), Germann, Lilien, Fiedler and Kraus (2014), and Ransbotham, Kiron and Prentice (2015) who all found firms which possessed a heterogeneous BDA showed significant improvements in financial and/or operational performance.

An ACRMS is a segment of BDA which combines BDA and customer analytics with automation, people and firm specific marketing and sales strategies to create value for customers and possibly lead to a competitive advantage (Payne & Frow, 2005; Haislip & Richardson, 2017). Haislip and Richardson (2015), Roh, Ahn & Han (2005), Talon-Ballester, Gonzalez-Serrano, Soguero-Ruiz, Munoz-Romero & Rojo-Alvarez (2018), and Navimipour & Soltani (2016) all found firms with an ACRMS had financial and/or operational improvements as a result. This led the researcher to choose an ACRMS as an example of firm specific BDA and dynamic capability.

Organizational culture is the values, assumptions, and beliefs of the people in the firm (Schein, 1984; Pettigrew, 1979; Schneider, 1987; Denison, 1996). Organizational culture has been found to be positively related to firm performance (Sorensen, 2002; Gregory et al., 2009; Chan et al., 2004; Yilmaz & Ergun, 2008; Denison & Mishra, 1995).

Quinn and Rohrbaugh, (1983) developed the CVF to identify four different categories of organizational culture depending on whether the firm was focused internally or externally and whether it valued stability or flexibility. The four
different cultures are clan, adhocracy, market, and hierarchy (Quinn & Rohrbaugh, 1983). In a study of the CVF (Quinn & Rohrbaugh, 1983), it was discovered a firm may have more than one type of culture and if these cultures work in concert the result could lead to financial and/or operational performance improvements in the firm (Hartnell et al., 2011).

McAfee and Brynjolfsson (2012); Kiron (2013); and Kiron et al. (2014) determined organizational culture plays a key role in the success of a firm specific BDA program. Firms with an organizational culture which is focused on the customer should show performance improvement both financially and operationally from the use of an ACRMS (Triznova et al., 2015; Bahri-Ammari & Nusair, 2015; van Bentum & Stone, 2005; Chang et al., 2010; Curry & Kkolou, 2004; Iriana et al., 2013; Rahimi & Gunlu, 2016).

Teece et al. (1997) stated the objective of a dynamic capability is a competitive advantage. Barney (1986, 1995) posited a valuable, rare, inimitable and organizationally supported organizational culture can lead to a sustained competitive advantage. Fiol (1991) stated an organizational culture which supports organizational learning may result in a sustained competitive advantage, while Zollo and Winter (2002) stated organizational learning culture can lead to a firm specific dynamic capability. Hartnell et al. (2011) determined when the firm has its organizational culture in alignment with its business strategy it can result in a competitive advantage.
Organizational culture has been studied as an antecedent to dynamic capabilities (Schilke et al., 2018; Eriksson, 2014). Schilke et al. (2018) found nineteen studies using organizational culture as an antecedent to dynamic capabilities. However, the researcher could find no single case studies of organizational culture as an antecedent to a firm specific dynamic capability.

The research method used in this study was a transcendental phenomenological (Moustakas, 1994) holistic instrumental single case study (Stake, 2006; Yin, 2018). This method allowed the researcher to study organizational culture in its natural setting at the site of the firm being studied. The researcher conducted thirteen structured interviews at the location of the firm serving as the case and all interviews were recorded. The researcher also conducted one unstructured unrecorded interview off site with an SME on the firm and made extemporaneous notes immediately upon completion of the interview, but did not use the results of this interview in the data analysis process. In addition, the researcher observed informal interactions between employees of the case and received performance information which management of the firm serving as the case was willing to share with the researcher, plus publicly available information.

The researcher found the firm has an organizational culture which is a combination of clan and market-oriented culture. The clan culture was inferred from the majority (85%) of interviewed employees using words or phrases such as teamwork, mutual respect, fun place to work, care about employees, and
organizational support of employees. The market-oriented culture was supported by 77% of employee’s who were interviewed using phrases and words such as we met our goals, and everyone knows their job.

The firm also uses an ACRMS. It divides the system into two parts. The first part is the ACRMSP which is used by the agents to track sales activities from the initial contact through conclusion of the sales process. The second part is the ACRMSE which is used by the CSRs to perform and monitor service requests.

It was deduced from the data the culture of the organization is supported as an antecedent in the case firm to the dynamic capability of an ACRMS according to the definitions of Eisenhardt and Martin (2000). However, organizational culture was not supported as an antecedent to the Teece, et al. (1997) and Teece (2014) definitions since the ACRMS did not fit these definitions of a firm specific dynamic capability.

**Contribution of Study**

This study made a contribution to the literature through studying organizational culture as an antecedent to a dynamic capability in a firm through a research method which could not be found in any other study on this topic. The firm serving as the case was the central Florida office of a multi-state regional independent insurance agency headquartered in another large southern state. The
specific research method used to complete this study was a transcendental phenomenological holistic single case study (Moustakas, 1994; Stake, 2006; Yin, 2018). While the findings from a single case study are not generalizable, it is possible to generalize to the theory based on the data gathered during the case study (Yin, 2018; Gibbert et al., 2008; Flyvbjerg, 2006).

This case study examined dynamic capabilities according to the definition of Teece et al. (1997) where they defined dynamic capabilities as heterogeneous capabilities possessed by the firm which when reconfigured can lead to a sustained competitive advantage. The ACRMS of the case firm served as the specific dynamic capability studied. An ACRMS is a specific segment of the capability of BDA which has been shown to be a dynamic capability which can lead to a competitive advantage (Haislip & Richardson, 2015; Roh et al., 2005; Talon-Ballestero et al., 2018; Navimipour & Soltani, 2016). However in this case study it was discovered the ACMRS was a homogenous system with characteristics of dynamic capabilities according to the definition of Eisenhardt and Martin (2000) and not the Teece et al. (1997) conceptualization. Through completing the case study method in an actual business setting the study contributed to existing knowledge by providing additional evidence organizational culture plays a role in the dynamic capability framework.

The organizational culture was examined according to the competing values framework (Quinn & Rohrbaugh, 1983). Based on the responses provided
by the interviewees it was determined the culture of the firm serving as the case was a combination of clan or people oriented and market or results oriented. Hartnell et al. (2011) determined firms with a combination of clan and market can perform both financially and operationally better than those which only have one type of culture since these types of culture can work in concert instead of against each other.

This study contributes to the existing knowledge through the supplemental finding which found moderate support for organizational culture serving as a dynamic capability in the firm according to the definition of Teece (2014). In Teece (2014) he stated the dynamic capability conceptualization of Eisenhardt and Martin (2000) was invalid. If as Teece (2014) stated the Eisenhardt and Martin (2000) conceptualization is invalid, then it follows their conceptualization cannot exist. If the Eisenhardt and Martin (2000) conceptualization does not exist, then it follows there can be no Eisenhardt and Martin (2000) dynamic capability in a firm. It also follows both the Eisenhardt and Martin (2000) and Teece (2014) dynamic capabilities cannot exist in the same firm at the same time.

This study found support for the organizational culture serving as an antecedent to the dynamic capability of an ACRMS according to the definition of Eisenhardt and Martin (2000). The supplemental finding found moderate support for the organizational culture serving as a dynamic capability according to the definition of Teece (2014). These findings contradict the Teece (2014)
conceptualization concerning the dynamic capability conceptualization of Eisenhardt and Martin (2000).

In addition researchers should be able to extend the findings of this research by studying other types of best practices to see if organizational culture is an antecedent to the continued use of the best practice. This study can also be extended to determine the relationship between organizational culture and the process of capability reconfiguration in a firm. Practitioners should be able to use this study to develop a culture in the firm which supports continued use of best practices and implementing change.

**Discussion and Implications**

This study used the competing values framework to determine the type of organizational culture the firm possessed and the effect the culture has to serve as an antecedent to a dynamic capability in the firm. Using the definitions of the CVF it was discovered the firm serving as the case has a combination of a clan and market-oriented culture (Quinn & Rohrbaugh, 1983). Hartnell et al. (2011) determined firms with more than one value type as a culture can actually perform better than those with only one type of culture if the orientations work in concert as opposed to against each other. It is possible if a different framework of organizational culture was used it could have led to different results.
The firm serving as the case employs a corporate psychologist to administer, analyze, and interpret the results from a personality profile prior to extending a formal job offer to an applicant. This tool enables the firm to determine which people will fit the culture of the firm prior to hiring (Judge & Cable, 1997). While all employees interviewed were familiar with the profile, not all of them understood the importance of the test from the perspective of matching an applicant’s personality to the culture of the firm. A possible reason for the difference in understanding the importance of the profile may be the result of management not explaining why all applicants are tested prior to offering a position.

A practical implication of this study is the culture of an organization is comprised of the people in the firm, and having a properly designed and implemented personality profile can lead to a stronger organizational culture through alignment of the personality characteristics of hires with the personality characteristics required for the job as determined by the leaders of the firm (Barney & Hansen, 1994; Chatman, 1991; Judge & Cable, 1997). Organizational culture can serve as a source of SCA if the culture is comprised of VRIN characteristics (Barney, 1986), if it is managed through change and renewal of people, behaviors and values (Fiol, 1991), and if it is strong and idiosyncratic (Teece, 2014). A firm which designs jobs to match its strategy and uses a profile as part of the hiring
process can also lead to an SCA through placing the right people in the right job (Porter, 1985; Lengnick-Hall et al., 2009).

Several of the interviewees were negative about the overall automation system at the firm serving as the case. This could have been caused by the recent connectivity issue between the home office in another state and the office, therefore, no one at the office of the firm could connect to the automation system and complete any work tasks for the entire first day interviews were being conducted by the researcher. It is possible responses from those interviewed concerning the ACRMSP and ACRMSE might be different if the interviews had been conducted at a time post resolution of the recurring connectivity issues.

Recommendations

The EVP of the firm stated the agents employed by the firm serving as the case having the mindset to withstand rejection from the majority of prospective clients and to keep making calls to prospects in spite of the rejections is more valuable to the firm than having a fully populated ACRMSP system. The tenacity mindset can be measured by a properly designed and tested personality profile (Judge & Cable, 1997). The EVP stated the firm employs a corporate psychologist who administers and interprets a personality profile prior to offering a position to applicants. This could lead to a study to determine if the organizational culture is a

Another interesting study would be to do a cross case analysis of firms in the same industry as the case firm of different sizes and differing reliance on technology and automation in an attempt to determine if automation leads to performance improvements and financial results. Another possible study would be to examine the performance results of each firm and compare it to the unique culture of each organization.

The use of automation and technology has improved McAfee and Brynjolfsson (2012) determined BDA is the process of extracting valuable information from data the firm possesses and then the capability to use the information to gain a competitive advantage. Tenner (2018) stated while increased use of automation and technology has contributed to efficiency gains it has also lead to decreases in effectiveness. Participant 801 stated there are times she turns her email system off so she can complete tasks she has started, calls clients on the phone just to reestablish personal relationships, and the increased reliance on automation has led to unrealistic expectations on the part of the clients to which she is providing service. This notion is supported by Wells (1987) when he stated the
insurance industry is in the process of changing the way it interacts with customers due to increasing service demands which can sometimes be unrealistic. This could lead to a study of customers to determine if their expectations of time to complete service requests have been decreased due to the perception of increases and improvements in technology should lead to lower time necessary to process service requests. Another possible study would be to explore if increased customer expectations have resulted in increased job stress in service personnel.

Another interesting study would be to determine why over 40% of sales professionals do not use an ACRMS and would not use one even if provided by their employer (Howard, 2016). A study of firms which use SHRM to identify the personality characteristics of sales professionals to comply with company requirements concerning the use of automation including an ACRMS to determine if this increases the probability of operational success.
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APPENDIX A

Proposed Research Model

Organizational Culture → Dynamic Capability
Participant Recruitment Flyer

Research Participants Needed

Florida Institute of Technology Doctoral Student is Seeking Participants

From Your Organization to Interview:

Participants Will:

- Meet for about one hour to discuss a specific topic about organizational culture
- Contribute to the research on organizational culture, and the CRM system used in the business
- Be entered into a drawing for a $25 Gift Card
- Be asked to volunteer for a follow-up interview in exchange for a $20 Gift Card

For Further Information Please Contact:

Greg Spencer
Principal Investigator
Phone: 321-863-2778
Email: fspencer2016@my.fit.edu
SIGN UP TO BE INTERVIEWED TO ASSIST A DOCTORAL CANDIDATE COMPLETE HIS RESEARCH FOR HIS DISSERTATION AND RECEIVE A $25 VISA GIFT CARD FOR YOUR TIME AND INPUT.

MONDAY NOVEMBER 5
10 am. To 11 am _______________________________________
11 am To Noon _________________________________________
1:30 pm to 2:30 pm _______________________________________
2:30 pm to 3:30 pm _______________________________________

TUESDAY NOVEMBER 6
10 am. To 11 am _______________________________________
11 am To Noon _________________________________________
1:30 pm to 2:30 pm _______________________________________
2:30 pm to 3:30 pm _______________________________________

WEDNESDAY NOVEMBER 7
10 am. To 11 am _______________________________________
11 am To Noon _________________________________________
1:30 pm to 2:30 pm _______________________________________
2:30 pm to 3:30 pm _______________________________________

THURSDAY NOVEMBER 8
10 am. To 11 am _______________________________________
11 am To Noon _________________________________________
1:30 pm to 2:30 pm _______________________________________
2:30 pm to 3:30 pm _______________________________________
Research Participant Informed Consent Form

Understanding the Relationship between Organizational Culture with the Implementation and Use of the Dynamic Capability of Big Data Analytics

Dissertation Committee Chair: Dr. Lars Hansen
Telephone Number: (321) 674-8528

Principal Investigator: F. Gregory Spencer
Telephone Number: (321) 863-2778

1) Introduction

You are invited to participate in a research study under the direction of Dr. Lars Hansen of the College of Business at Florida Institute of Technology (Florida Tech), dissertation committee chair, and F. Gregory Spencer, student researcher and principal investigator. Taking part in this research is entirely voluntary. You may choose not to take part, or you may choose to withdraw from the study at any time.

2) Why is this study being done?

You are being asked to take part in this study because you are an employee of Bowen, Miclette & Britt of Florida, LLC. Your personal experiences with your organizations culture, your perceptions of your organization and how you fit into it and your ideas will greatly enhance this research project.

The purpose of this study is to explore whether organizational culture can serve as an antecedent to the successful implementation and use of big data analytics in the form of a customer relationship management system in the organization.
If you are participating in a live interview, it will take place at 1020 Orlando Ave. #200 Maitland, FL 32751 at __________ (time) on _______________ (date).

If you volunteer to participate in a follow-up interview, I will contact you to set up a mutually convenient time and location or electronic method.

Analysis of all data collected will be conducted at the following location: **Florida Institute of Technology, Melbourne, FL.**

3) **What is involved in this study?**
If you choose to take part in this study, this is what will happen:

- I will contact you to set up an interview date, time, and method (live, via phone, or via several electronic methods).
- I will send you a confirmation e-mail to confirm the agreed-upon date and time.
- You will participate in the approximately hour-long interview on the designated date and time. You will be asked a series of questions regarding your experience with the company, and how you feel about the organization and its implementation and use of its big data analytics program.
- The interview will be recorded, and I will take handwritten notes during the interview.
- You will be given the opportunity to volunteer to review the transcript of your session and participate in a follow-up personal interview to discuss the findings and explore your input and ideas more deeply.
- Final analysis will be conducted, and the results and findings will be formally written into my dissertation.
- Upon request, I will send you a copy of the results of the findings after the analysis has been conducted and the conclusions have been written into the dissertation.
- The total amount of time you will spend in connection with this study is approximately one hour for the initial interview, one hour to review your portion of the transcript, and 30 minutes to one hour for the personal follow-up interview, for a total of up to three hours.
4) **What are the risks of participating in this study?**

There are no physical risks associated with this study. There is, however, a risk of loss of confidentiality. I will make every effort to keep your information strictly confidential; however, this cannot be guaranteed. Also, you may find that some of the questions asked as part of this study may raise sensitive issues for you, resulting in mild emotional discomfort. You may refuse to answer any of the questions asked, and you may take a break at any time during the study, both during the initial and follow-up interviews, if you choose to participate. In addition, you may withdraw from this study at any time without negative consequences.

5) **Are there any benefits to taking part in this study?**

Taking part in this research will not assist you directly; however, you may benefit from:

- Receiving a $25 gift card for participating in the interview process.
- The opportunity to reflect on your experiences within your organization
- The opportunity to provide guidance for senior management in the future
- Receiving a $25 gift card for participating in the transcript review and follow-up interview

The benefit to science and humankind may include:

- The opportunity to gain insight into whether organizational culture is an antecedent to the dynamic capability of big data analytics.

6) **What are my options?**

Participation in this study is voluntary. You do not have to participate in this study if you do not want to. Should you decide to participate and later change your mind, you may withdraw at any time.

7) **Will I receive payment being in this study?**

You will be given a $25 gift card for participating in the initial interview. If you choose to volunteer to participate in the transcript review and follow-up interview, you will receive a $25 gift card.
8) **Can I be taken off this study?**

The investigator may decide to withdraw you from the study at any time. You could be removed from the study for reasons related solely to you (e.g., not following study-related directions from the investigator) or because the entire study is stopped.

9) **How will my privacy be protected?**

If the results of this research study are published in journals or at higher education meetings, none of the participants will be named or identified. You may be quoted using a pseudonym of your choosing in published materials, without reference to any possible identifying information such as your company name or location. Florida Tech will not release any information about your research involvement without your written permission, unless required by law.

10) **Problems or Questions**

The Institutional Review Board of Florida Institute of Technology, at telephone number (321) 674-8960, can provide further information about your rights as a research participant. Further information regarding this study may be obtained by contacting Dr. Lars Hansen, dissertation committee chairperson, at (321) 674-8528 or F. Gregory Spencer, principal investigator and student researcher, at (321) 863-2778.

- Please keep a copy of this document for your files
- If you agree to participate in this study, please sign below

_______________________________________
Participant’s Name (printed) and Signature       Date

_______________________________________
Person Obtaining Consent’s Name (printed) & Signature       Date

_______________________________________
Principal Investigator’s Name (printed) & Signature       Date
APPENDIX E

Research Participant Demographic Form

I. Personal Information: (Please provide all requested information)

Title: (Please circle one)

Dr.    Mr.    Mrs.    Ms.    Miss

Full Name: ________________________________________________________________

Preferred Telephone Number: ________________________________________________

Preferred Email Address: ____________________________________________________

Gender Identification: (Please circle one)

Male    Female    Prefer not to answer

Marital Status: (Please circle one)

Married    Single    Divorced    Widowed    Other_______________________

Highest Level of Education Attained: (Please circle one)

High School    Associate’s    Bachelor’s    Master’s    Doctorate

Other (specify): ____________________________________________________________
Employment Information: (please provide all requested information)

Present Employer:

____________________________________________

Present Title:

______________________________________________________________

Number of years you have held this title: ______________ years

Number of years you have worked for your current employer:

______________ years

Number of years in the industry______________________ years

II. Pseudonym

In the space below, please indicate the name you wish to use for confidentiality purposes. Consider a nickname or a name you would have preferred other than your given name. Keep in mind if you want to maintain your privacy do not choose a name that could identify you. If a name is not provided, I will assign a pseudonym for you.

Pseudonym: ________________________________________________
APPENDIX F

Interview Protocol – Employee

1. Tell me about your experience with the company and its culture.
   a. How long have you been employed here?
   b. How long have you been in the industry?
   c. How does this company compare with other firms you have worked for both inside and outside the industry? Explain.
   d. Do you feel you fit in with the company? Why or why not?
   e. Do you feel you have internalized the culture of the company? Why or why not?
   f. What’s your favorite part of your job? Why?
   g. How would you describe the culture of the company? Why?
   h. How would you describe the job support and training you receive from the company? Why or why not?
   i. How would you describe the personal support you receive from the company? Why or why not?
   j. What else can you tell me?
2. Tell me about the CRM system
   a. Do you feel the CRM system is easy to use? Why or why not?
   b. How does the CRM system here compare to other CRM systems you have worked with? Tell me about it?
   c. Is the CRM system fully integrated with all other software programs in the business such that it is a single entry system? If not would it be beneficial to you in your job if it was?
   d. Do you feel the CRM system makes your job easier? Why or why not?
   e. Do you feel the CRM system makes your work flow easier? Why or why not?
   f. Do you feel the benefits of the CRM system match the expectations set by top management? Why or why not?
   g. Do you use the CRM system to its full potential? Why or why not?
   h. Do you feel the CRM system is being used to its full potential by your fellow co-workers? Why or why not?
   i. What features would you like to see added to the existing CRM system? Tell me about it?
   j. What else can you tell me?
APPENDIX G

Interview Protocol – Top Management

1. Tell me about the culture of the organization
a. How do you describe the culture? Why?
b. Which is more important for the new hires for the company: talent or culture fit? Why?
c. Do you think the organizational culture provides a competitive advantage for the company? Tell me about it?
d. Does top management communicate to the staff the expected culture of the organization? Explain?
e. Does top management protect the culture? Tell me about it?
f. Does top management communicate organizational news with the staff? Tell me about it?
g. How does top management see the company’s culture in comparison to other companies in the industry? Tell me about it?
h. How does voluntary turnover compare with other firms in your industry? Why?
i. How does involuntary turnover compare with other firms in your industry? Why?
j. What else can you tell me?
2. Tell me about the CRM system
   a. Do you feel the CRM provides the company a competitive advantage? Explain?
   b. What unique features of the CRM system compared to the competition which gives the business a competitive advantage? Tell me about it?
   c. Has the CRM met the expectations of top management? Explain?
   d. Looking back what would you have done different when deciding on and implementing the CRM system? Explain?
   e. Do you feel the CRM system is easy to use? Why or why not?
   f. Is the CRM system fully integrated with all other software programs in the business such that it is a single entry system? If not would it be beneficial to your staff if it was?
   g. Do you use the CRM system is used by the staff to its full potential? Why or why not?
   h. Do you feel the CRM system is being used to its full potential by your staff? Why or why not?
   i. Do you feel the CRM system has helped the company meet its revenue and revenue growth goals? Why or why not?
   j. What else can you tell me?