SMALL - AND MEDIUM-SIZED ENTERPRISES' CUSTOMER RELATIONSHIP MANAGEMENT PROCESSES IMPACT ON FIRM PERFORMANCE MODERATED BY ENTREPRENEURIAL ORIENTATION

by

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ABSTRACT

KATRICE BRANNER. Small - and Medium-Sized Enterprises' Customer Relationship Management Impact Processes on SME Firm Performance Moderated by Entrepreneurial Orientation (Under the direction of DR. FRANZ KELLERMANNS)

Many studies investigate the factors that impact small and medium-sized enterprise performance. In this dissertation, the research model suggests that customer relationship management processes are a multi-dimensional construct that can be a source of competitive advantage. The multi-dimensional construct consists of three stages, which are initiation, maintenance, and termination, which can positively or negatively impact SME performance. The study empirically tests the theoretical model by collecting data from 87 SMEs representing 12 states across many regions. The results showed that the implementation of CRM maintenance processes positively impacted SME performance. In addition, the main effect of the proactiveness sub-dimension of entrepreneurial orientation strengthens the relationship between CRM processes and SME performance. These findings have theoretical and practical implications by suggesting that the CRM maintenance processes, where firms focus on customer retention, up-selling/cross-selling, and referral management, can be a sustained source of competitive advantage that contributes to positive SME performance in terms of growth and profitability.

DEDICATION

I dedicate this dissertation to my husband and my three wonderful boys! Your unyielding love and support ensured success on this journey!

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LIST OF ABBREVIATIONS

CRM	Customer Relationship Management
DV	Dependent Variable
EFA	Exploratory Factor Analysis
EO	Entrepreneurial Orientation
IS	Information Systems
IT	Information Technology
IV	Independent Variable
OLS	Ordinary Least Squares
RBV	Resource-based View
SME	Small and Medium-Sized Enterprises
US	United States
VIF	Variance Inflation Factor

CHAPTER 1: INTRODUCTION

Small and medium-sized enterprises (SMEs) are critical to the United States economy (Audretsch, 2002; Memili et al., 2015) and are defined as independent businesses with fewer than 500 employees (The United States Small Business Administration, 2018). According to the United States Small Business Administration (2018), small businesses created 8.4 million net new jobs, while large businesses created 4.4 million in the last 17 years. Furthermore, SMEs encompass 28.8 million firms, accounting for 99% of all firms in the United States (The United States Small Business Administration, 2018). Although SMEs are critical to the US economy, only about half of the businesses survived beyond five years (The United States Small Business Administration, 2018), thus leading researchers to investigate factors which impact SME competitive advantages that result in improved firm performance in terms of growth and profitability (Cader & Leatherman, 2011; Headd & Kirchhoff, 2009).

Some scholars have posited that marketing capabilities can be a source of competitive advantage for both large and small firms (Day, 1994; Krasnikov & Jayachandran, 2008; O'Cass et al., 2012; Vorhies et al., 1999), but more so in small firms because of their flexibility, adaptability, and closeness to their customers (Pelham, 2000, p. 34; Raju et al., 2011, p. 1324). Research also suggests that marketing in both large and small organizations has evolved to a customer-centric view where organizations collaborate with and learn from their customers (Reinartz et al., 2004; Vargo & Lusch, 2004). This customer-centric view of marketing, in the form of customer relationship management, may benefit SMEs by leading to higher retention of customers, a more

considerable competitive advantage, and growth in sales and employment (Morrish et al., 2010; O'Cass et al., 2012; Reinartz et al., 2004).

In earlier research, studies suggest that traditional technology-based customer relationship management systems are one of the weaker areas for small and medium-sized enterprises due to their lack of financial resources (Carson & Cromie, 1989; Gilmore et al., 2001). However, scholars suggest that firms that focus only on the technical aspects of CRM will struggle taking advantage of the customer relationship capabilities because CRM is about more than the technology (Chen & Popovich, 2003; Lambert, 2009; Reinartz et al., 2004) and success is dependent on process management (Keramati et al., 2010). As an alternative, Reinartz et al. propose that the levels of multi-dimensional customer relationship management (CRM) process implementations are associated with superior performance (Reinartz et al., 2004). These multi-dimensional CRM processes include customer initiation, customer maintenance, and customer termination (Reimann et al., 2010; Reinartz et al., 2004). This study examines the CRM processes for small and medium-sized enterprises incorporating the strategic posture of the firms as a potential moderator.

1.1 Research Objective

Customer relationship management is often defined as a strategic approach that develops appropriate relationships with key customers and customer segments by uniting the potential of relationship marketing strategies with information technology (IT) or information systems (IS) to create value (Payne & Frow, 2005). For example, some researchers suggest that CRM systems, such as salesforce.com, define the practical use of customer relationship management (Hendricks et al., 2007; Nguyen & Teresa, 2013).

Research has yielded mixed results on whether CRM system implementations and adoptions help both large and small firms improve their relationships with customers, strengthen their competitive position, and improve firm performance (Chang et al., 2010; Hendricks et al., 2007; Reinartz et al., 2004). Scholars theorize that marketing in SMEs is different from marketing in large organizations (Carson & Cromie, 1989; Gilmore et al., 2001) suggesting that marketing in SMEs is less formal and more resource-constrained (Gilmore et al., 2001; O'Dwyer et al., 2009) and would benefit more from a multi-dimensional process focus of CRM than from CRM technology adoption emphasis. For example, instead of using a technology system such as salesforce.com, some SMEs are using simple spreadsheets and email software as a part of their customer relationship management processes with minimal financial resources. Furthermore, SMEs may attend one or two local Chamber of Commerce events per month where they enter customer information into a simple spreadsheet, and follow-up with customers based on a reminder in their email management system. While there have been studies that focus on the technology adoption of CRM systems in SMEs (Alshawi et al., 2011; Newby et al., 2014; Nguyen & Teresa, 2013; Peltier et al., 2009), limited research has focused on the relationship between CRM multi-dimensional processes and improved performance in SMEs.

The resource-based view (RBV) of the firm argues that firms that possess valuable, rare, non-imitable, and non-substitutable internal resources and capabilities differentiate themselves from competitors to achieve superior performance (Barney, 1991). Some scholars suggest that capabilities, more so than resources, drive firms to better performance because these capabilities are part of the organizational processes

(Teece et al., 1997). Marketing scholars argue that “marketing capability involves the processes that enable a firm to build sustainable relationships with customers” (Krasnikov & Jayachandran, 2008, p. 2). Customer relationship management is one of those multi-dimensional marketing process capabilities that is embedded into the organization in such a way that it creates a sustainable competitive advantage (Krasnikov & Jayachandran, 2008; Reinartz et al., 2004).

The entrepreneurial orientation (EO) of a firm refers to a firm’s strategic orientation and its decision-making styles, methods, and practices (Lumpkin & Dess, 1996; Miller, 1983). Studies have shown that EO has positive performance implications in large and small organizations (Lomberg et al., 2017; Lumpkin & Dess, 1996; Rauch et al., 2009; Wiklund, 1999). An SME’s EO is relevant to CRM multi-dimensional process research because researchers have shown that EO is significantly related to marketing capabilities (Keh et al., 2007; Li et al., 2008; Smart & Conant, 1994). This research proposes that SMEs' entrepreneurial orientation has a moderating role when evaluating how a firm’s marketing capability, multi-dimensional customer relationship processes, impact firm performance.

This dissertation aims to build on marketing and entrepreneurship research. The RBV of the firm is used as the theoretical framework suggesting that CRM as multi-dimensional processes create a sustained competitive advantage for SMEs impacting firm performance (growth and profitability). The study further suggests that SMEs’ EO moderates the relationship between CRM processes and firm performance. Specifically, the dissertation aims to answer the question of how SME performance is positively

impacted by their level of CRM multi-dimensional process implementation moderated by the firm's entrepreneurial orientation.

This paper made four contributions to the literature that addresses the need to evaluate the sustained competitive advantages of SMEs. First, expanding on marketing literature, this study expands on the research done by Reinartz et al. (2004) by explicitly investigating the degree to which CRM processes are implemented across SMEs and their relationship to firm performance. Second, this dissertation addressed the call for further research to explore marketing processes in SMEs in an integrated approach combining the resource-based view (RBV) of the firm with entrepreneurial orientation (Bocconcelli et al., 2018; Jones & Rowley, 2011). Third, this study empirically developed and tested the theoretical idea that SMEs who implement CRM multi-dimensional processes will have improved firm performance with the relationship enhanced by the entrepreneurial orientation of the firm. Finally, this study contributes to practice by suggesting CRM process activities that SMEs can perform that may enhance firm performance.

1.2 Organization of the Dissertation

This dissertation is organized into five chapters. Chapter 1 introduces the focus of the research on the resource-based view (RBV) of the firm, customer relationship management processes (CRM), and a firm's entrepreneurial orientation (EO) within the boundary conditions of small and medium-sized enterprises. Chapter 2 is divided into four sections. The first section defines SMEs, RBV, CRM, and EO. The second and third sections characterize and review the seminal literature for RBV, CRM, and EO and consider these concepts in context by examining SMEs and marketing capabilities literature. The fourth section presents a research model and integrated hypotheses for

empirical examination. Chapter 3 outlines the methodology, including the survey instrument and approach, the measures, and data analysis. Chapter 4 reports the result of the analysis. Chapter 5 concludes the dissertation with a discussion of the results, limitations, conclusions, and future research opportunities.

CHAPTER 2: LITERATURE REVIEW & HYPOTHESES DEVELOPMENT

This chapter provides a review of the relevant literature in four major sections. The first section discusses the definitions of SMEs, EO, and CRM. The second section outlines the characteristics of the literature reviewed. The third section provides a synthesis of the RBV, EO, and CRM literature and explains how each of these theories is adapted to SMEs. The final section concludes this chapter and provides a presentation of a research model and the development of hypotheses that predict the impact of CRM multi-dimensional processes (initiation, maintenance, and termination) on SME performance and the moderating effect of EO.

2.1 Definitions

The definition of SMEs differs by country. In the US, the Small Business Administration defines an SME as an independent business with fewer than 500 employees (The United States Small Business Administration, 2018). On the other hand, in Europe, the European Commission defines SMEs as employing less than 250 people (European Commission, 2019). It was concluded in a global study of SME definitions, researched by Berisha and Pula (2015), that there was no universally accepted definition for SMEs in either academic literature or country-related practitioner literature (Berisha & Pula, 2015). Consequently, in this dissertation, an SME is defined as a business with fewer than 500 employees, which is consistent with the definition used by the US Small Business Administration, the country in which this study was conducted empirically.

Many researchers agree that not all SMEs automatically exhibit an entrepreneurial orientation (Altinay et al., 2016; Carland et al., 2007; Runyan & Covin, 2018; Shane & Venkataraman, 2000). Entrepreneurial orientation is defined as a strategic posture or a

firm's overall competitive orientation (Covin & Slevin, 1989, 1991; Miller, 1983). Furthermore, a firm's entrepreneurial orientation focuses on whether a firm's behavior is innovative, proactive, and/or risk-taking (Lumpkin & Dess, 1996; Miller, 1983; Wiklund & Shepherd, 2003).

Comparable to SMEs, CRM has multiple definitions depending on the discipline and the context. Scholars have found over 45 definitions of CRM across multiple areas, including marketing and information systems (IS) or information technology (IT) (Ahearne et al., 2012; Zablah et al., 2004). The literature has classified CRM as a combination of a process, strategy, philosophy, capability, and/or technology (Payne & Frow, 2005; Zablah et al., 2004). This dissertation focuses on the definitions of CRM that are customer-facing as well as broad and strategic. The following two definitions are the basis of this study and capture the objective of my dissertation. The first definition of CRM is by Payne and Frow (2005) and is broad and strategic in nature:

> "CRM is a strategic approach that is concerned with creating improved shareholder value through the development of appropriate relationships with key customers and customer segments. CRM unites the potential of relationship marketing strategies and IT to create profitable, long-term relationships with customers and other key shareholders. CRM provides enhanced opportunities to use data and information to both understand customers and cocreate value with them. This requires a cross-functional integration of processes, people, operations, and marketing capabilities that is enabled through information, technology, and applications"(Payne & Frow, 2005, p. 168).

The second definition of CRM is by Reinartz, Krafft, and Hoyer (2004) and is based on a single view of the customer across the business:

> "We define the CRM process at the customer-facing level as a systematic process to manage customer relationship initiation, maintenance, and termination across all customer contact points to maximize the value of the relationship portfolio." (Reinartz et al., 2004, pp. 294-295).

Combining both definitions, this dissertation uses the following definition of CRM:

> CRM is defined as both a strategic approach and as a systematic process to manage customer relationships at the stages of initiation, maintenance, and termination.

These definitions are important distinctions in the research as they distinguish between CRM being viewed as a technology versus as a process or a strategy. Furthermore, these definitions outline the view of customer relationships within an organization and demonstrate that CRM is about more than an IT solution (Payne & Frow, 2005; Reinartz et al., 2004), where other definitions focus on the adoption of CRM as an information system or technology tool. The next section provides characteristics of the literature reviewed and the underlying theory of the study.

2.2 Characteristics of the Literature Reviewed

The review of the literature was explored using the Business Source Complete database applying various combinations of search terms, including the following: small and medium-sized enterprises, SME, marketing, customer relationship marketing, CRM, research-based view, RBV, entrepreneurial orientation, and EO. The results were filtered by scholarly peer-reviewed journals to ensure the credibility of the research. The articles

were further refined by examining the titles and abstracts to determine if a potential contribution to the discussion of small and medium-sized enterprises and customer relationship management existed, which would justify inclusion into the research. In addition to the seminal and theory-based articles identified across RBV, marketing, and EO, the literature was further refined by focusing on empirical articles that show the use of RBV, CRM, and EO to improve SME performance. The articles are summarized in the tables in the next section and are cited throughout the paper.

2.3 Theory

The building blocks of every theory contain essential elements that provide a legitimate value-added contribution, and those elements represent the what, how, and why of theory development (Whetten, 1989). The "what" represents the variables, constructs, and concepts that explain the phenomena of interest while ensuring comprehensiveness and parsimony. The "how" shows the relationships among the variables, constructs, and concepts and are typically depicted visually with the use of boxes and arrows. The "why" explains the rationale for the selection of variables, constructs, and concepts, thus articulating the underlying assumptions of the theory. In addition to the what, how, and why, a theory should include boundary constraints that provide contextual limits of its propositions by evaluating the who, where, and when of the theory, thus setting the boundaries (Whetten, 1989).

The present dissertation aims to address these theoretical expectations by incorporating theories and constructs that encompass what, how, and why of theory development while evaluating the appropriate boundaries of generalizability. As such, this dissertation includes the following theoretical framework and constructs. The first is

the RBV of the firm in management theory. The second is the CRM construct in marketing/relationship management theory. The final is the EO construct in entrepreneurship theory. All three are set in the boundary conditions for SMEs in the US.

2.31 The Resource-based View

The Resource-based View (RBV) of the firm pedigree stems from the strategic management domain and the seminal work of Edith Penrose and her book "The Theory of the Growth of The Firm," that defined resources as "the physical things a firm buys, leases, or produces for its own use, and the people hired on terms that make them effectively part of the firm" (Penrose, 1959, p. 60). Through the years, researchers have continued to refine RBV to focus on the internal strategic resources of the firm (Barney, 1991; Wernerfelt, 1984).

Wernerfelt (1984) observed firms in terms of their resources instead of in terms of their products. He noted that one could identify types of resources that can lead to high profits and outlined that examples of those resources are brand names, in-house knowledge of technology, and employment of skilled personnel (Wernerfelt, 1984). As a result, to obtain a competitive advantage, firms need to find resources that can sustain a resource position barrier where they are among the few who succeed in building this barrier (Wernerfelt, 1984).

Barney (1991) further expanded on Wernerfelt's view of resources based on two fundamental assumptions. The first assumption is that firms within an industry must be heterogeneous with respect to strategic resources in order to have a source of competitive advantage (Barney, 1991). Second, these resources may not be perfectly mobile across firms to sustain a competitive advantage for a long period of time (Barney, 1991). The

resources include all assets, capabilities, organizational processes, firm attributes, information, and knowledge and can further be classified as physical capital resources, human capital resources, and organizational capital resources (Barney, 1991). As shown in Figure 2.1, a firm must possess resources that are valuable, rare, imperfectly imitable, with no strategically equivalent substitute in order for these resources or capabilities to provide a sustained competitive advantage.

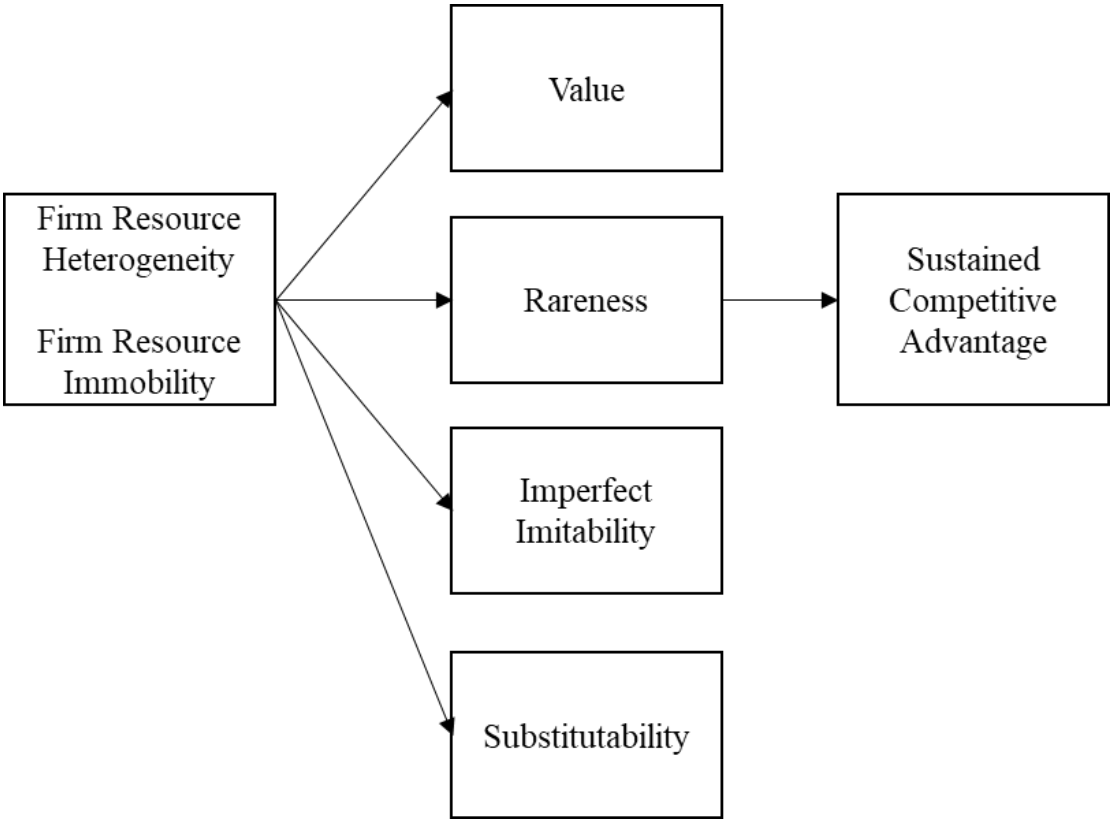

Figure 2.1 Adapted From (Barney, 1991, p. 112) Resource-based view of the firm

For a firm's resources to be a source of sustained competitive advantage, it must be valuable (Barney, 1991). Valuable resources enable a firm to implement strategies that improve the firm's efficiency and effectiveness by being able to exploit opportunities or neutralize threats (Barney, 1991). Likewise, a resource must also not be simultaneously implemented by other firms and thus must be rare resources (Barney, 1991). Rare

resources are those resources that are unique to the firm (Barney, 1991). In addition to resources needing to be valuable and rare to sustain a competitive advantage, resources must also be non-imitable and not substitutable. Non-imitable resources cannot be duplicated or copied by competitors (Barney, 1991). Moreover, resources that are not substitutable have no strategic equivalents, or another firm is not able to substitute a similar resource to implement a similar strategy (Barney, 1991).

Although RBV is the most influential management theory in academics, it continues to face criticism in strategic management and related disciplines including SME and entrepreneurship literature (Alvarez & Busenitz, 2001; Barney et al., 2001; Campbell & Park, 2017; Kellermanns et al., 2016; Kraaijenbrink et al., 2010; Priem & Butler, 2001). One of the main criticisms of RBV literature is that the definition does not distinguish resources from capabilities (Barney et al., 2001; Kraaijenbrink et al., 2010; Lonial & Carter, 2015; Wade & Hulland, 2004). Kraaijenbrink et al. (2010) state that "They do not sufficiently acknowledge the distinction between those resources that are inputs to the firm and the capabilities that enable the firm to select, deploy, and organize such inputs" (Kraaijenbrink et al., 2010, p. 358). Consequently, Teece et al. (1997) introduce the notion of dynamic capabilities and define them 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). Similarly, Eisenhardt and Martin (2000) later defined dynamic capabilities as "the organizational and strategic routines by which firms achieve new resource configurations as markets emerge, collide, split, evolve, and die" (Eisenhardt & Martin, 2000, p. 1107). Although this study agrees that more clarity on the definition of resource versus capability may be beneficial, the study

does not evaluate the multi-dimensional CRM processes as a dynamic capability because this study is cross-sectional, whereas dynamic capabilities imply change over time.

Scholars that have empirically applied RBV, specifically to SMEs, suggest a myriad of strategic competitive capabilities, as summarized in Table 2.1. In addition to the seminal articles for the resource-based view of the firm, additional articles are summarized in the table based on the result of the search combination for keywords: small and medium-sized enterprises, SME, marketing, resource-based view, and RBV in the Business Source Complete Database. The search was further refined to articles published in scholarly peer-reviewed journals in English. These SME capabilities summarized include social capital (Roxas & Chadee, 2011), brand identity (Runyan et al., 2007), marketing capability (Carraresi et al., 2016; De Zubielqui et al., 2014; Spillan & Parnell, 2006), networking capability (Carraresi et al., 2016; Gilmore et al., 2006; Tolstoy & Agndal, 2010), innovation capability (Carraresi et al., 2016), customer orientation capability (Spillan & Parnell, 2006), and advisory services as a resource (Devi & Kamyabi, 2012).

Based on a review of the studies, the literature supports that SMEs have some capabilities that are different from those in large organizations (Carson & Gilmore, 2000; Gilmore, 2011; Gilmore et al., 2001). For example, scholars note that SMEs can use their close relationship with customers and their preference for in-person contact to market and offer products and services to their customers based on knowledge not available to large organizations (Gilmore et al., 2001). The review further sheds light on a call for future research in the literature that includes defining unique SME capabilities and their impact on firm performance (Kellermanns et al., 2016; Runyan et al., 2007). The present

research focuses on filling this gap by studying specific CRM processes, which are initiation, maintenance, and termination, in SMEs to determine if these processes have an impact on firm performance. The next section of this dissertation will review the CRM literature that further suggests that the activities associated with the CRM processes are unique for SMEs.

Table 2.1 Seminal & Select Empirical SME Studies on RBV of the Firm

Authors	Type of Study	Key Findings	Sample
Barney (1991)	Conceptual	A firm must possess resources that are valuable, rare, imperfectly imitable, with no strategically equivalent substitute in order for these resources or capabilities to provide a competitive advantage.	N/A
Barney (2001)	Conceptual	Barney discusses his 1991 RBV article and examines and responds to issues raised by Priem & Butler (2001) about the article. Although Barney acknowledges that Priem and Butler highlight areas of RBV that require further development, Barney concludes that RBV is a useful perspective for strategic management research.	N/A
Carraresi, Mamaqi, Albisu, & Banterle (2016)	Quantitative	The results revealed that the marketing, network, and innovation capabilities directly and positively affect performance.	67 SMEs
De Zubielqui, Lindsay, & O'Connor (2014)	Quantitative	SMEs use marketing sources of ideas as strategic firm resources.	643 SMEs
Kamyabi & Devi (2012)	Quantitative	SMEs use advisory services as a resource and competitive advantage.	658 SMEs
Penrose (1959)	Conceptual	Defined resources as the physical things a firm buys, leases, or produces for its own use, and the people hired on terms that make them effectively part of the firm.	N/A
Priem & Butler (2001)	Conceptual	Priem and Butler examine Barney's (1991) RBV article and identifies conceptual challenges and offer recommendations for improvements that address their issues with theoretical structure, RBV assumptions, the value concept, the definition of resources, and the cross-sectional approach to RBV.	N/A
Roxas & Chadee (2011)		SMEs use social capital as a resource.	175 SMEs
Runyan, Huddleston, & Swinney (2007)	Qualitative	Community brand identity and social capital were articulated by focus group participants as resources which helped them to be successful.	Focus Groups
Spillan & Parnell (2006)	Qualitative	Having a culture and philosophy that is market oriented can be an exceptionally important resource for SMEs.	153 SMEs
Teece (1997)	Conceptual	The dynamic capabilities framework analyzes the sources and methods of wealth creation and capture by private enterprise firms operating in environments of rapid technological change.	N/A
Tolstoy & Agndal (2010)		SMEs use networking capability as a resource.	6 Cases
Wernefelt (1984)	Conceptual	To obtain a competitive advantage, firms need to find resources that can sustain a resource position barrier where they are among the few who succeed in building this barrier.	N/A

2.32 Customer Relationship Management

In the mainstream literature, marketing and management scholars have attempted to link the RBV of the firm and marketing theories to suggest that market-specific resources, capabilities, and processes leads to sustained competitive advantages (Srivastava et al., 2001). In the development of the commitment-trust theory of relationship marketing, Morgan and Hunt (1994) provided the following definition:

> "Relationship marketing refers to all marketing activities directed toward establishing, developing, and maintaining successful relational exchanges." (Morgan & Hunt, 1994, p. 22).

CRM stems from a combination of marketing strategy, marketing capability, and relationship marketing (Payne & Frow, 2005; Wahlberg et al., 2009). Relationship marketing and CRM are inextricably linked because consistently throughout the literature, scholars note that managing relationships with customers benefits the firm (Harrigan & Miles, 2014; Reinartz et al., 2004). Furthermore, some scholars specifically propose that successfully initiating, maintaining, and terminating customer relationships will lead to improved firm performance over time (Reinartz et al., 2004; Srivastava et al., 2001). Reinartz et al. (2004) describe the initiation process as the processes a firm uses to acquire customers, the maintenance process as the processes a firm uses to retain customers, and the termination process as the processes a firm uses to exit customer relationships (Reinartz et al., 2004).

The literature suggests that SME marketing is different from conventional marketing in large organizations (Carson & Cromie, 1989). SMEs spend a considerable amount of time networking with their customers in formal and informal settings due to

their unstructured customer relationship processes (Gilmore et al., 2001). Small and medium-sized enterprises ultimately use networking opportunities to improve their marketing activities (Gilmore et al., 2006). This practice demonstrates that SMEs are using customer relationship management processes to develop close ties with their customers, understand their needs, and respond proactively and quickly to changes in their customer's needs and wants (Avlonitis & Salavou, 2007) which can lead to a sustained competitive advantage (Harrigan & Miles, 2014).

The articles summarized in Table 2.2 are the result of the search combination for keywords small and medium-sized enterprises, SME, marketing, customer relationship management, and CRM in the Business Source Complete Database, further refined to articles that are scholarly peer-reviewed journals in English. As summarized in the table, early empirical SME marketing and customer relationship management research focused on how personal contact networking (Alshawi et al., 2011; Peltier et al., 2009) contributed to marketing activities resulting in a marketing infrastructure that helps maintain customer relationships (Peltier et al., 2009). The IT/IS literature further explored the technology adoption of CRM in SMEs (Newby et al., 2014; Nguyen & Teresa, 2013; Peltier et al., 2009) by suggesting that SMEs tend to adopt simple internet-based technology to help manage customer relationships (Harrigan et al., 2011, 2012b; McGowan et al., 2001). More recent research, while still focusing on networking, emphasize the social media and electronic marketing aspects of managing customer relationships suggesting that these approaches can improve the firm’s CRM efforts (Charoensukmongkol & Sasatanun, 2017; Chong et al., 2016; Choudhury & Harrigan, 2014; Harrigan & Miles, 2014; Webb & Roberts, 2016).

Some scholars have noted that CRM is not always successful in large or small firms due to technology adoption (Boulding et al., 2005; Nguyen & Simkin, 2013). However, in SMEs, success or failure is typically not because of technology adoption but due to organizational factors (Harrigan & Miles, 2014; Newby et al., 2014). For example, the research suggests that many organizational factors such as structural (no access to large systems), managerial (the mind-set of the owner-manager), and operational influences (lack of formal processes) can impact the performance of customer relationship management in SMEs (Alshawi et al., 2011; Boulding et al., 2005; Nguyen & Teresa, 2013).

Based on the literature, I conclude that by focusing on CRM processes versus CRM technology, SMEs can overcome not having access to large CRM systems by relying heavily on networking (Gilmore et al., 2006), as a part of their marketing capability, to obtain customer information (Kingsley & Malecki, 2004) and improve firm performance (Gilmore et al., 2001). The CRM multi-dimensional processes (initiation, maintenance, and termination) are viewed as those marketing processes that can be leveraged in SMEs as unique processes to achieve a competitive advantage and improve firm performance.

Table 2.2 Selected Empirical SME Studies on CRM

Authors	Type of Study	Key Findings	Sample
Alshawi, Missi, & Irani (2011)	Qualitative	The findings of this study confirm that many factors affect the adoption of CRM in SMEs: Benefits; Staff ICT skills; Managerial ICT skills; Organisation size; Support; Funding; Strategy; Business objectives; Customer response/attitude; Government; Competitive pressure; Suppliers; ICT infrastructure; Purchase, implementation and integration cost; System evaluation and selection criteria; Complexity; Integration; Vendor after-sale support; Software selection criteria; Evaluation of the Data Quality Tools and Processes; Evaluation of the quality of customer data; Customer data infrastructure; and Customer data sources classification	Case Study 30 SMEs
Chong, Bian, & Zhang (2016)	Quantitative	SME's use of e-CRM can greatly influence e-marketing performance by integrating these e-marketing services into their portfolio of marketing activities to help develop strong customer relationships.	176 SMEs Mixed Methods
Choudhury & Harrigan (2014)	Quantitative	Social media and CRM are mutually beneficial, and social CRM is an approach that some firms are adopting successfully. Social CRM is when firms integrate social media data into their existing CRM systems to better understand customers and their interests.	167 Firms
Harrigan & Miles (2014)	Quantitative	This study uncovered social CRM activities of SMEs that lead to better customer relationships, which include online communities, social media support, information capture, information use, customer relationship orientation, social media data, and customer communication.	156 SMEs
Harrigan, Ramsey, & Ibbotson (2011)	Quantitative	SMEs are adopting relatively simple internet-based technologies for CRM activities to improve their customer communication and information management capabilities to create a competitive advantage.	1445 SMEs
Newby, Nguyen, & Waring (2014)	Quantitative	Management characteristics (innovativeness and positive attitude) positively influence SME's perception of CRM technology and whether or not to adopt.	126 SMEs
Nguyen & Teresa (2013)	Quantitative	The decision for SMEs to implement a CRM system is influenced by management's perception, employee involvement, firm size, perceived market position.	126 SMEs
Peltier, Schibrowsky, & Yushan (2009)	Quantitative	The most important factors for SMEs in adopting CRM technology are product class knowledge, perceived relative advantage, environmental hostility and uncertainty, business change orientation, and risk propensity.	386 SMEs

2.33 Entrepreneurial Orientation

Scholars have many definitions of entrepreneurship, as noted in the 2007 cross-disciplinary study of entrepreneurship research by Ireland and Webb (2007). For example, Ireland, Hitt, and Simon (2003, p. 965), defined entrepreneurship as the identification of previously unidentified opportunities whereas, Dorbrev and Barnett (2005, p. 439) define entrepreneurship as the creation of new organizations, and Shane and Venkataram (2000, p. 218) as the source of opportunities. Accordingly, the fundamental perspective that can be concluded is that entrepreneurship is about an organization's pursuit of entrepreneurial activities, and the essence of these activities is captured by the firm's strategic posture in terms of its behaviors toward risk-taking, innovation, and proactiveness (Covin & Slevin, 1989, 1991; Miller, 1983). For instance, risk-taking behaviors have been characterized by a firm taking on large amounts of debt, making substantial resource commitments, or other investment decisions in the face of uncertainty (Covin & Slevin, 1991; Lumpkin & Dess, 1996). Innovative behaviors have been characterized by product or technology innovation as well as a firm's engagement and support of new ideas and creative processes (Covin & Slevin, 1991; Lumpkin & Dess, 1996). Proactive behaviors have been characterized by a firm's propensity to aggressively and actively compete with industry rivals (Covin & Slevin, 1991; Lumpkin & Dess, 1996).

Entrepreneurial Orientation (EO) has become a dominant theoretical basis for entrepreneurship research resulting in wide acceptance of the concept that is based on entrepreneurial decision making and actions (Covin & Slevin, 1991). In addition, researchers have noted that companies that deploy strategic orientations such as EO, have

a sustained competitive advantage and perform at higher levels in the marketplace (Lonial & Carter, 2015). Moreover, Covin and Wales (2012) and George and Marino (2011) evaluated whether a formative or reflective measurement model is the most appropriate for assessing entrepreneurial orientation and concluded that a reflective measurement model should be chosen "when a researchers objective is to create and/or employ a measure of EO that has value in more than one structural model, which would be necessary for a subsequent theory development and testing purposes" (Covin & Wales, 2012, p. 698) and that "EO represents a larger concept than simply the sum of its dimensions and that these dimensions are merely reflections of this larger, unobservable construct that represents the firm's strategic posture" (George & Marino, 2011, p. 1002).

Furthermore, many scholars suggest that risk-taking, innovativeness, and proactiveness covary and represent one composite dimension (Covin & Wales, 2012; George & Marino, 2011; Miller, 1983), as depicted in the research model in Figure 2.2. Alternatively, Lumpkin and Dess (1996) proposed the independence of the dimensions and added two additional behaviors; autonomy and competitive aggressiveness. However, a significant number of entrepreneurship researchers have agreed that EO is better represented as a composite measure with the combination of innovativeness, proactiveness, and risk-taking because these variables capture the essence of entrepreneurship (George & Marino, 2011; Miller, 1983; Webb et al., 2011; Wiklund, 1999; Wiklund & Shepherd, 2003).

The link between EO and performance in SMEs has been largely studied and empirically tested throughout the literature (Avlonitis & Salavou, 2007; Baker & Sinkula, 2009; Keh et al., 2007; Moreno & Casillas, 2008; Rauch et al., 2009; Wiklund &

Shepherd, 2003). The EO and performance link, as they relate to SMEs, are summarized in Table 2.2. The twelve articles in Table 2.2 are the result of the search combination for keywords small and medium-sized enterprises, SME, marketing, entrepreneurial orientation, and EO in the Business Source Complete Database, further refined to empirical articles that are scholarly peer-reviewed journals in English. As summarized in the table, scholars have indicated multiple performance levers for SMEs with higher levels of EO. The research suggest that SMEs higher in EO, due to their more proactive and risk-taking nature, have better marketing actions which is to say that they generate and process more customer information based on customer demands than those firms lower in EO (Choi & Williams, 2016; Lekmat et al., 2018; Tang & Hull, 2012). In addition, scholars note that SMEs with higher levels of EO have better international performance (Brouthers et al., 2015; Radulovich et al., 2018), better overall quality performance (Oly Ndubisi & Agarwal, 2014), better strategic alliances (Brouthers et al., 2015; Oliveira Junior et al., 2016), and better overall growth (Eggers et al., 2013; Moreno & Casillas, 2008).

On the other hand, scholars have postulated that EO in small firms can be less useful than in large firms because EO can be costly and time-consuming, and small firms typically have much smaller budgets and resources than large firms (Lonial & Carter, 2015; Wang, 2008). For instance, many small firms may not have the ability to recover from implementing new products or initiatives that may be risky, inefficient, and negatively impact performance (Lonial & Carter, 2015). However, in these cases, researchers also suggest that EO, when coupled with marketing capabilities, can provide a complete picture of SME performance (Lonial & Carter, 2015). Additionally, research

suggests that marketing and entrepreneurship, in general, are tightly integrated with firms (Webb et al., 2011), and scholars have suggested further research in SMEs that investigate whether specific marketing competencies increase as the business grows (Jones & Rowley, 2011). Moreover, the research suggests that the entrepreneurial processes and the marketing processes have practical integration that can impact firm opportunity recognition leading to better firm performance (Webb et al., 2011). This dissertation will answer the call to further investigate entrepreneurial orientation and marketing processes by studying the moderating effect of EO on CRM multi-dimensional processes and SME firm performance.

Table 2.3 Selected Empirical SME Studies on EO

Authors	Type of Study	Key Findings	Sample
Avlonitis & Salavou (2007)	Quantitative	SME's entrepreneurial attitudes are mirrored in new products and an important contributor to product performance.	149 Manufacturing Companies
Brouthers, Nakos, & Dimitratos, 2015;	Quantitative	SMEs have higher international performance when they possess greater EO and when the type of alliance (research or marketing) used is aligned with the capabilities of the firm.	162 SMEs
Choi & Williams (2016)	Quantitative	EO in SMEs should be treated as an enabler of action, stimulating the deployment of technology and market intelligence capabilities that generate new knowledge for the firm and help the firm deal with uncertainty.	489 SMEs
Eggers, Kraus, Hughes, Laraway, & Snycerski (2013)	Quantitative	SME EO drives growth because of its emphasis on innovation to renew the firm's growth trajectory.	660 SMEs
Lekmat, Selvarajah, & Hewege (2018)	Quantitative	EO improves performance through marketing capabilities.	405 SMEs
Lonial & Carter (2015)	Quantitative	SMEs that incorporate EO in addition to market orientation and LO will result in superior performance.	164 SMEs
Moreno & Casillas (2008)	Quantitative	EO affects growth through strategic behavior moderated by the external environment and internal resources.	434 SMEs
Oly Ndubisi & Agarwal (2014)	Quantitative	EO dimensions, proactiveness, risk-taking and autonomy have a significant influence on quality performance.	124 SMEs
Radulovich, Javalgi, & Scherer (2018)	Quantitative	SMEs with greater levels of EO are more capable of leveraging employees' knowledge resources for superior performance in an international context.	199 SMEs
Rezaei & Ortt (2018)	Quantitative	SMEs with greater EO have a positive relationship between innovativeness and R&D functional performance and between proactiveness and marketing and sales functional performance.	279 SMEs
Spillecke & Brettel (2014)	Quantitative	SME sales department's EO is a key performance lever.	268 SMEs
Tang & Hull (2012)	Quantitative	Chinese SMEs with greater EO use marketing strategies to improve firm performance.	170 SMEs

2.4 Research Model and Hypotheses Development

Customer relationships are said to evolve and be evaluated over time at distinct phases of the relationship (Dwyer et al., 1987; Payne & Frow, 2005; Reinartz et al., 2004; Vargo & Lusch, 2004). Reinartz et al. (2004) proposed that the CRM process of a firm entails the management of relationships as they move from the initiation to maintenance to termination phases of relationships with the customer (Reinartz et al., 2004). The first phase of the relationship is the initiation stage, where firms tend to focus on customer acquisition and customer recovery management (Reinartz et al., 2004). The second phase of the relationship is the maintenance stage, where firms tend to focus on customer retention, customer up-selling/cross-selling, and referral management (Reinartz et al., 2004). The final phase of the relationship is the termination phase, where firms tend to focus on exit management (Reinartz et al., 2004).

Previous studies investigated the impact of CRM on firm performance and called for future research to explore the conditions under which CRM is valuable to SMEs using both the RBV of the firm and marketing as the theoretical frameworks (Bocconcelli et al., 2018; Reinartz et al., 2004; Williams et al., 2017). The literature suggests that one of the unique capabilities that differentiate SMEs from large organizations is their ability to do marketing by networking with their customers (Gilmore et al., 2001) to create and maintain valuable customer relationships (Reijonen, 2010). For example, SMEs may market their business with customers as a part of membership in trade organizations or by attending an event such as a Chamber of Commerce luncheon (Gilmore et al., 2001). The networking capabilities of SMEs may lead to sustained competitive advantages if evaluated as a part of the multi-dimensional customer relationship management processes

at the initiation, maintenance, and termination stages. In addition, research suggests that many SMEs, unlike most large organizations, focus on one-on-one in-person contact with their customers that allows them to tailor customer communication and respond quickly to customer wants and needs (Reijonen, 2010). Similar to the networking capabilities, the one-on-one in-person contact may lead to sustained competitive advantages as a part of the multi-dimensional customer relationship management process at each stage. The research model for this dissertation, as shown in Figure 2.2, is a moderation model that depicts the development of six hypotheses, as shown in Table 2.2, predicting the relationships among the multi-dimensional CRM processes and firm performance at the initiation, maintenance, and termination stages moderated by entrepreneurial orientation.

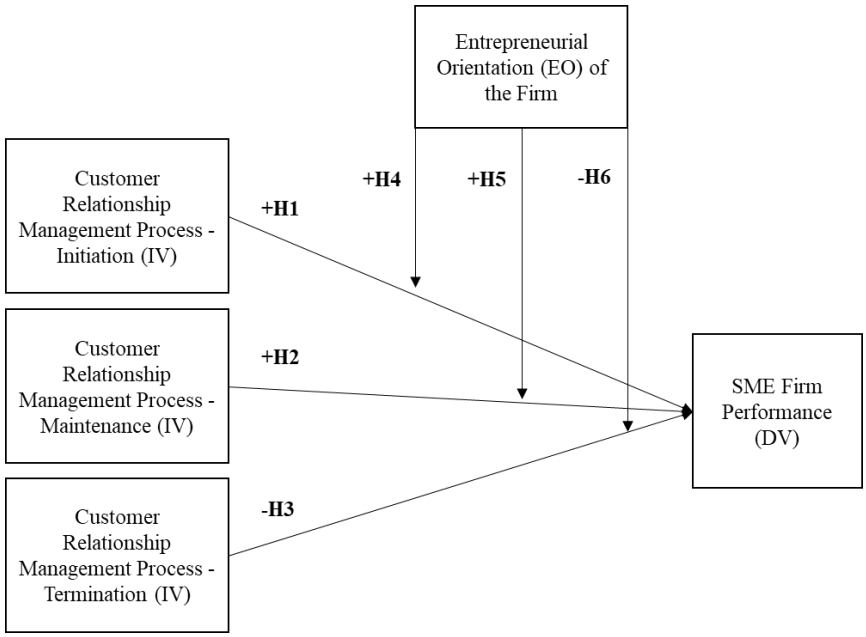

Figure 2.2 Model of SME CRM Impact on Firm Performance Moderated by EO

Table 2.4: Hypothesized Relationships

CRM & Firm Performance	
H1	Higher levels of CRM initiation processes in SMEs are positively associated with firm performance.
H2	Higher levels of CRM maintenance processes in SMEs are positively associated with firm performance.
H3	Higher levels of CRM termination processes in SMEs are negatively associated with firm performance
The Moderating Role of EO	
H4	The relationship between CRM initiation processes and firm performance has an interaction effect with EO, such that higher levels of EO make the relationship between CRM initiation and firm performance more positive, whereas lower levels of EO make this relationship less positive.
H5	The relationship between CRM maintenance processes and firm performance has an interaction effect with EO, such that higher levels of EO make the relationship between CRM maintenance and firm performance more positive, whereas lower levels of EO make this relationship less positive.
H6	The relationship between CRM termination processes and firm performance has an interaction effect with EO, such that higher levels of EO make the relationship between CRM termination and firm performance more negative, whereas lower levels of EO make this relationship less negative.

As stated earlier, the customer relationship management multi-dimensional process constructs consist of customer initiation, maintenance, and termination. When evaluating the initiation stage of the CRM process, a higher degree of process implementation means that SMEs have processes in place that facilitate the acquisition of information that allow them to be able to obtain new customers and/or recover previous customers at a level that positively impact growth and profitability to achieve a sustained competitive advantage over their rivals. For many SMEs, this includes having processes in place that gather personal sources of information about potential, lost, or inactive customers that lead to an understanding of new market opportunities (Keh et al., 2007; Reinartz et al., 2004). Numerous SMEs have processes for the initiation stage that tend to incorporate networking, attending social events, and relying on in-person contact to obtain customer information, evaluate potential customers, and/or acquire or win back old customers (Bocconcelli et al., 2018; Carson & Gilmore, 2000; Gilmore, 2011; Harrigan et al., 2012b; Jones & Rowley, 2011; Keskin, 2006). Gilmore (2001) et al. suggested that some SMEs never missed social dinners, even when their rivals did not attend similar events, because they recognized the importance of building in-person relationships as a means to gather information that allows them to evaluate, acquire, and/or recapture customers (Gilmore et al., 2001). Therefore, I expect a positive relationship between SMEs with greater customer relationship initiation processes and firm performance.

H1: Higher levels of CRM initiation processes in SMEs is positively associated with firm performance.

When evaluating the maintenance stage of the CRM process, a higher degree of maintenance process implementation means that SMEs have processes in place that facilitate the maintaining of information that allow them to be able to gain a sustained competitive advantage as a result of retaining customers by up-selling, cross-selling or referral management. SMEs, unlike large organizations, tend to have constant formal and informal communication with customers because their customers become a part of their personal networks (Gilmore et al., 2006; Harris & Rae, 2009). By having customers as a part of personal networks, SMEs are able to obtain information that facilitates the up-selling or cross-selling of products at social events in addition to professional events, thus leading to growth and profitability. The personal contact with customers, to gather customer information, tends to allow SMEs to know the customer needs better than larger organizations, thus positively contributing to customer personalization, retention, and referrals (Harrigan & Miles, 2014; Stokes, 2000). Therefore, I expect a positive relationship between SMEs with greater customer relationship maintenance processes and firm performance.

H2: Higher levels of CRM maintenance processes in SMEs is positively associated with firm performance.

The final stage in the customer relationship process is termination. In the termination stage, firms have processes in place that allow them to capture information that facilitates being able to focus on ending customer relationships based on customer value (Reinartz et al., 2004). In doing so, some firms use a lower level of engagement with customers as a means to terminate customer relationships (Malthouse et al., 2013). Large and small firms tend to understand that building customer relationships are vital to

business success. However, research suggests that small and medium-sized firms also recognize the importance and implications of cutting off personal contact with key individuals can result in the loss of customers (Gilmore et al., 2001). For instance, attending in-person events is typically a primary method for gathering information that leads to acquiring and retaining customers for SMEs more so than large organizations. Therefore, by not attending an in-person event, SMEs have a higher chance of the loss of customers (Harrigan & Miles, 2014). Customer relationship termination processes have the potential to weaken performance in the short-term with lower levels of engagement with problem customers; however, it may yield positive results in the long-term by using the information to not innovate for customers that do not appear to value the relationship. Malthouse et al. (2013) noted that terminated customers might respond negatively by spreading negative word-of-mouth resulting in the loss of customers that were not meant to be terminated. Therefore, in the short-term, I expect a negative relationship between SMEs with greater customer relationship termination processes and firm performance.

H3: Higher levels of CRM termination processes in SMEs is negatively associated with firm performance.

The Moderating Role of EO

As stated earlier, entrepreneurial orientation is defined in terms of a firm's strategic posture and its engagement in innovative, risk-taking, and proactive behaviors (Miller, 1983). Furthermore, EO has been shown to strengthen the capabilities of both large and small organizations. However, these behaviors in SMEs, that have customer relationship management processes allow them to be more risk-taking and proactive when using in-person networking to obtain customer information and more innovative

when working with customers to discover new opportunities. These behaviors in SMEs further enhance the competitive advantage that differentiates them from their rivals and further improves growth and profitability (Avlonitis & Salavou, 2007; Knight, 2000; Wiklund & Shepherd, 2005).

Previously, I proposed a positive relationship between CRM initiation processes in SMEs and firm performance. I now propose that CRM initiation processes will positively interact with firms EO. As noted, stronger CRM initiation processes facilitate the acquisition of new customers and the recovery of lost customers. In doing so, these CRM initiation processes can not only inject an understanding of new market opportunities (based on an understanding of previously un-served customers' needs) but also potentially help SMEs understand how they failed to address prior market opportunities effectively (Jayachandran et al., 2005; Keh et al., 2007). SMEs that have higher levels of EO can then translate this enhanced market understanding gleaned from their CRM initiation processes to innovate and more effectively capture new markets and similarly innovate more effectively to address existing market opportunities (Jayachandran et al., 2005; Keh et al., 2007).

In contrast, SMEs that are characterized by higher EOs but weaker CRM initiation processes are more likely to lack direction when attempting to innovate. Instead, given a limited understanding of new markets, the extra effort of these SMEs might be focused more on delivering new technical features versus addressing known customer needs and delivering benefits (Keh et al., 2007). At best, these SMEs might continue to exploit existing customer needs but will have less potential to identify or take advantage of growth opportunities.

SMEs can also be characterized by more conservative orientations (i.e., low EO). In these cases, stronger CRM initiation processes can still provide an in-depth understanding of new markets and how to more effectively address existing opportunities, yet the firms' strategic posture does not allow them to innovate meaningfully in ways to create benefit from this superior understanding (Wiklund & Shepherd, 2003). In fact, investing significant resources and capital in CRM initiation processes when the SME has a lower EO might actually create inefficiencies that lower SME performance (Nyuur et al., 2016).

SMEs with lower EOs and weaker CRM initiation processes are more likely to rely on imitative efforts to compete. The lack of new market information understandably inhibits the ability to foresee new opportunities (Keh et al., 2007), and the more conservative posture in the SMEs similarly undermines any potential innovation that might occur otherwise (Wiklund & Shepherd, 2003). Imitative efforts can allow SMEs to somewhat respond to competition, yet such efforts and typically associated with smaller profits (Barney, 1991; Srivastava et al., 2001), ultimately yielding lower SME performance.

Based on this, the hypothesis states:

H4: The relationship between CRM Initiation processes and firm performance has an interaction effect with EO, such that higher levels of EO make the relationship between CRM initiation and firm performance more positive, whereas lower levels of EO make this relationship less positive.

Previously, I proposed a positive relationship between CRM maintenance processes in SMEs and firm performance. I now propose that CRM maintenance

processes will positively interact with firms' EO. As noted, stronger CRM maintenance processes facilitate the maintaining of information that allows firms to have an understanding of their customers that results in retention due to up-selling, cross-selling, or referral management. SMEs that have higher levels of EO can translate this enhanced customer knowledge obtained from CRM maintenance processes to more effectively deliver products that reward customer loyalty and retention (Keh et al., 2007). In addition, because selling additional products to existing customers is cheaper than attracting wholly new customers (Krishnan et al., 2014; Richards & Jones, 2008), innovating to meet existing customer needs likely increases performance.

In contrast, SMEs that are characterized by higher EOs but weaker CRM maintenance processes are more likely to lack direction when attempting to develop products for existing customers (Reinartz et al., 2004). Instead, given a limited understanding of current customers, the effort of these SMEs may be focused more on delivering products that do not address the customers' needs and wants (Keh et al., 2007), thus not taking advantage of potential growth opportunities.

SMEs can also be characterized by having low EO. In these cases, stronger CRM maintenance processes can still provide some understanding of current customers; however, the firm's conservative strategic posture does not allow it to meaningfully create products that take advantage of the superior customer understanding (Wiklund & Shepherd, 2003). Instead, SMEs with lower EO are likely to rely on existing products to address customer needs with minor incremental improvements, enabled by the stronger CRM maintenance processes, but fail to capture broader opportunities among their existing customers.

SMEs lower in EO and weaker in CRM maintenance processes are more likely to rely on existing products to compete (Reinartz et al., 2004). The lack of understanding of the needs and wants of existing customers inhibits the ability to create products that address the needs and wants of their customers, and the low conservative posture similarly undermines any potential innovation that might occur otherwise (Wiklund & Shepherd, 2003). Providing only existing products to existing customers can slow the growth efforts of SMEs and are associated with smaller margins yielding lower SME performance (Srivastava et al., 2001).

Based on this, the hypothesis states:

H5: The relationship between CRM maintenance processes and firm performance has an interaction effect with EO, such that higher levels of EO make the relationship between CRM maintenance and firm performance more positive, whereas lower levels of EO make this relationship less positive.

Previously, I proposed a negative relationship between CRM termination processes in SMEs and firm performance. I now propose that CRM termination processes will negatively interact with firms EO. As noted, stronger CRM termination processes facilitate firms being able to focus on ending customer relationships based on obtaining information about customer value (Reinartz et al., 2004). In doing so, these CRM termination processes allow for the understanding of problem customers (Reinartz et al., 2004) . SMEs that have higher levels of EO can not waste their time and capital attempting to innovate for customers that are not likely to value the innovative outcomes. In addition, SMEs are able to focus on resource investments for more attractive customers.

In contrast, SMEs that are characterized by higher EO but weaker CRM termination processes are more likely to lack direction when attempting to identify low value or problem customers (Wiklund & Shepherd, 2003). Instead, given a limited understanding of existing customers, these SMEs might not focus on terminating customer relationships at all (Keh et al., 2007). More likely, these SMEs might continue to invest significant resources to provide innovative products to customers that do not contribute positively to growth or profitability.

SMEs can also be characterized by low EO. In these cases, stronger CRM termination processes can still provide understanding about low-value customers, but the more conservative SMEs were not wasting resources on low-value customers regardless if CRM termination processes were high or low (Wiklund & Shepherd, 2003). In fact, investing significant resources in CRM termination processes when the SME has a lower EO might actually create inefficiencies that further lower SME performance.

SMEs with lower EOs and weaker CRM termination processes are more likely not to be aware of the value of current customers. The lack of customer information that provides customer value inhibits the ability to foresee any potential issues with existing customers (Keh et al., 2007). In addition, the more conservative posture in the SME similarly undermines any potential efforts associated with terminating low-value customers and are typically associated with lower margins and ultimately lower SME performance. Therefore by having both low EO and weaker CRM termination processes, the interaction effect makes the relationship less negative on performance (Malthouse et al., 2013; Wiklund & Shepherd, 2003).

Based on this, the hypothesis states:

H6: The relationship between CRM termination processes and firm performance has an interaction effect with EO, such that higher levels of EO make the relationship between CRM termination and firm performance more negative, whereas lower levels of EO make this relationship less negative. .

The theoretical tenets of RBV, customer relationship management, and EO impacts SME performance. This study incorporates these theoretical concepts by modeling firm-level performance as the outcome of the CRM multi-dimensional processes of initiation, maintenance, and termination moderated by EO. In Chapter 3, this study outlines the methodology used to test the hypotheses.

CHAPTER 3: METHODOLOGY

The purpose of this chapter is to provide a detailed explanation of the methodology used to test the research model and hypotheses outlined in this dissertation. This chapter has five subsections. The first section provides an overview of the study. The second section presents the survey instrument used to collect the data for this study. The third section outlines the survey approach, the sample characteristics, and the method for administering the survey. The fourth section outlines the measures, which show the scales and constructs in the survey. The fifth and final section contains the data analysis methodology for the study.

3.1 Overview

This study collected data from a sample of SMEs in 12 states, which were California, Florida, Georgia, Kentucky, Louisiana, Massachusetts, New York, North Carolina, Ohio, South Carolina, Tennessee, and Virginia, using a quantitative survey (Creswell, 2011). The survey method is a standard method for SME and entrepreneurship research (Newby et al., 2003). Survey data were collected from the owner or partner in the firm, which is also consistent with other SME research (Kara et al., 2005; Newby et al., 2003; Wolff & Pett, 2006). Participants in the study were randomly obtained from a list of Charlotte, North Carolina businesses in the US Small Business Administration database, and a list of businesses across the United States using personal contacts. The demographics of the data are outlined in Chapter 4. The survey instrument contains previously validated and accepted scales from marketing, entrepreneurship, and family business research. Data were analyzed using ordinary least squares (OLS) regression. The

subsequent sections provide a more detailed explanation of the survey instrument, survey approach, measures, and data analysis methodology.

3.2 Survey Instrument

Past research suggests that SMEs are reluctant populations when it comes to completing surveys because they do not want to divulge financial information about their business (Newby et al., 2003; Runyan et al., 2008). The initial survey population was the Small Business Administration database for Charlotte, North Carolina. Due to low response rates using the SBA database (4.6%), a list of personal contacts was used as a contingency plan to obtain additional survey participants leading to an overall response rate of (10%). The list of personal contacts was developed by contacting SME owners across various states. These SMEs then recommended additional SME owners in their personal networks. This method is commonly used for reluctant and difficult to reach populations (Atkinson & Flint, 2001). Web surveys were used to collect data. Research suggests that web surveys have gained significant popularity as a mode of conducting surveys due to the shorter transmitting time, lower delivery costs, more design options, and less data entry (Fan & Yan, 2010). Unfortunately, the disadvantage of web surveys is that the response rate is approximately 10% less than other survey modes (Fan & Yan, 2010).

Studies indicate that two of the key reasons that web surveys have challenges with response rates are due to survey software and the quality of the survey; therefore, specific methods are suggested to positively improve the number of responses as a result of these reasons (Fan & Yan, 2010; Newby et al., 2003; Simsek & Veiga, 2001). Researchers suggest making the survey easy to find on the web using a dedicated link for each

participant and ensuring the survey is easy to open and navigate (Fan & Yan, 2010; Simsek & Veiga, 2001). To evaluate the quality of the survey, researchers suggest developing and administering a pilot survey to a small group of respondents and then have the results reviewed by content experts (Fan & Yan, 2010). This study used the Qualtrics Survey Platform, which allowed for different browsers, was mobile-capable, and supported multiple data exportation formats for data analysis. In addition, an email address was provided for each owner/manager in Qualtrics, and Qualtrics provided a dedicated web link to each participant. Also, a small pilot survey was administered to a small group of 30 participants. No concerns were identified in the initial pilot, so the results were folded into the overall analysis. To also ensure the quality of the survey, a statement of affiliation with the university was used as another method to increase response rates, promote survey completion, and assure anonymity of the respondents (Newby et al., 2003).

3.3 Survey Approach

The study used G*power 3.1 software to conduct a power analysis to determine the appropriate sample size that was determined as a function of user-specified values for significance, statistical power, and effect size (Faul et al., 2009). The initial power analysis used a medium effect size of 0.30, a significance level of 0.05, and a power of 0.8 with eight predictor variables (i.e., four controls, three independent variables, and one moderator). G*power 3.1 generated a sample size of 66, which represented the target sample size for this study; however, the number of predictor variables increased after additions to the survey; therefore, the actual sample size was 87 usable cases. The sample consisted of SMEs representing 12 United States across multiple regions; however, 77%

were from North Carolina and Georgia. The survey contained questions about firm-level characteristics, such as firm age, firm size, industry, and ownership characteristics. A link to the web-based survey was emailed (Simsek & Veiga, 2001) to the owner or partner in the firm and included university affiliation and survey instructions.

3.4 Measures

The survey for this study used established scales for each construct, as described below. Most scales used a seven-point Likert-type scale because it allows for differentiation and can be more readily analyzed and interpreted (Flynn et al., 1990). The first validated scale captures CRM processes at the initiation, maintenance, and termination stages (Reinartz et al., 2004). A minor modification was made to the CRM scale to replace the term "Strategic Business Unit (SBU)" with the word "firm". Although the validated CRM process scales were based on large firms, the original study revealed that some of the businesses that participated in the study were small and medium-sized enterprises (Reinartz et al., 2004). The second scale captures the levels of EO (Miller, 1983). A minor modification was made to the EO scale to remove the term "top managers". The third scale captures SME firm performance (Kellermanns et al., 2012; Morgan et al., 2009). Modifications were made to the performance scale to have equal spacing between the growth and profitability numbers. The respondents were asked to reflect on the current year and the last three years for the dependent constructs (Wiklund & Shepherd, 2003) and the current year for the independent constructs. All the constructs are summarized in Table 3.1.

Table 3.1 Summary of Variables and Measures

Variable	Measure
Dependent Variable	
Financial Firm Performance	8-item subjective measure; growth relative to competition (Eddleston & Kellermanns, 2012; Morgan, Vorhies, & Mason, 2009)
Independent Variables	
Customer Relationship Management Initiation Customer Relationship Management Maintenance Customer Relationship Management Termination	44-item scale (Reinartz et al., 2004)
Moderator	
Entrepreneurial Orientation	9-item scale (Miller, 1983)
Controls	
Firm-Level	Industry (2 Digit NAICS code list) Firm Age (number of years in service) Firm Size (number of full-time employees) Firm Ownership (family firm or not)

3.41 Dependent Variables

The concept of measuring firm performance using objective financial indicators is at the core of theoretical and empirical strategy management research (Venkatraman & Ramanujam, 1986). However, researchers suggest a multitude of subjective measures of firm performance indicators for SMEs, where respondents are hesitant to respond to objective measures of firm performance questions (Kellermanns et al., 2012). The research suggests that subjective measures of firm performance correlate highly with objective measures of performance data (Eddleston et al., 2008). As shown in Table 3.2, SME respondents were asked to compare their organizational performance to the performance of their competitors for the current year and the last three years in terms of

growth in sales, market share, employees, profitability, return on equity, return on total assets, profit margin on sales, the ability to fund growth from profits, acquiring new customers, and increasing sales to current customers (Eddleston et al., 2008; Kellermanns et al., 2012; Rauch et al., 2009; Watson, 2007). Each item had the choices "much worse", "about the same", and "much better" comparing themselves with the competition, thus indirectly controlling for industry influences in the measure of performance (Kellermanns et al., 2012). The individual performance indicators were averaged to obtain an overall performance score, such that higher values represent higher performance levels (Kellermanns et al., 2012; Love et al., 2002).

Table 3.2 Firm Performance Scale

Please indicate the amount of Annual Sales:
Less than $500,000
$500,000 to less than $1 Million
$1 Million to less than $1.5 Million
$1.5 Million to less than $2 Million
$2 Million to less than $2.5 Million
$2.5 Million to less than $3 Million
$3 Million to less than $3.5 Million
$3.5 Million to less than $4 Million
$4 Million to less than $4.5 Million
$4.5 Million to less than $5 Million
More than $5 Million

Please indicate growth in employment over the past three years:
Zero or decreased
Less than 2%
2% - 3.99%
4% - 5.99%
6% - 7.99%
8% - 9.99%
10% or more

Scale items for firm performance were measured on a seven-point Likert-type scale (Much worse, about the same, much better for current and past three years)

	How would you rate your firm's performance as compared to your competitors?
1	Growth in sales
2	Growth in market share
3	Growth in number of employees
4	Growth in profitability
5	Return on equity
6	Return on assets
7	Profit margin on sales
8	Ability to fund growth from profits
9	Acquiring new customers
10	Increasing sales to current customers

3.42 Independent Variables

This dissertation measured the three CRM processes in SMEs. First, fifteen-items measured the CRM initiation processes, as shown in Table 3.3, which is the extent of a firm's customer evaluation, acquisition, and recovery management processes (Reinartz et al., 2004). Second, twenty-items measured the CRM maintenance processes, as shown in Table 3.4, which is the extent of a firm's retention, cross-selling, and referral management processes (Reinartz et al., 2004). Third, four-items measured the CRM termination processes, as shown in Table 3.5, which is the extent of a firm's exit management processes (Reinartz et al., 2004).

Table 3.3 CRM Initiation Scale

With regard to your business, to what extent do you agree with the following (1 = Strongly Disagree; 7 = Strongly Agree)
1. We have a formal system for identifying potential customers.
2. We have a formal system for identifying which of the potential customers are more valuable.
3. We use data from external sources for identifying potential high value customers.
4. We have a formal system in place that facilitates the continuous evaluation of prospects.
5. We have a formal system in place to determine the cost of reestablishing a relationship with a lost customer.
6. We have a systematic process for assessing the value of past customers with whom we no longer have a relationship.
7. We have a system for determining the cost of reestablishing a relationship with inactive customers.
8. We made attempts to attract prospects in order to coordinate messages across media channels.
9. We have a formal system in place that differentiates targeting of our communications based on the prospect's value.
10. We systematically present different offers to prospects based on the prospect's economic value.
11. We differentiate our acquisition investment based on customer value.
12. We have a systematic process/approach to reestablish relationships with valuable customers who have been lost to competitors.
13. We have a system in place to be able to interact with lost customers.
14. We have a systematic process for reestablishing a relationship with valued inactive customers.
15. We develop a system for interacting with inactive customers.

Table 3.4 CRM Maintenance Scale

With regard to your business, to what extent do you agree with the following (1 = Strongly Disagree; 7 = Strongly Agree)
1. We have a formal system for determining which of our current customers are of the highest value.
2. We continuously track customer information in order to assess customer value.
3. We actively attempt to determine the costs of retaining customers.
4. We track the status of the relationship during the entire customer life cycle (relationship maturity).
5. We maintain an interactive two-way communication with our customers.
6. We actively stress customer loyalty or retention programs.
7. We integrate customer information across customer contact points (e.g., mail, telephone, Web, fax, face-to-face).
8. We are structured to optimally respond to groups of customers with different values.
9. We systematically attempt to customize products/services based on the value of the customers.
10. We systematically attempt to manage the expectations of high value customers.
11. We attempt to build long-term relationships with our high-value customers.
12. We have formalized procedures for cross-selling to valuable customers.
13. We have formalized procedures for up-selling to valuable customers.
14. We try to systematically extend our "share of customer" with high-value customers.
15. We have systematic approaches to mature relationships with high-value customers in order to be able to cross-sell or up-sell earlier.
16. We provide individualized incentives for valuable customers if they intensify their business with us.
17. We systematically track referrals.
18. We try to actively manage the customer referral process.
19. We provide current customers with incentives for acquiring new potential customers.
20. We offer different incentives for referral generation based on the value of acquired customers.

Table 3.5 CRM Termination Scale

With regard to your business, to what extent do you agree with the following (1 = Strongly Disagree; 7 = Strongly Agree)
1. We have a formal system for identifying nonprofitable or low-value customers.
2. We have a formal policy or procedure for actively discontinuing relationships with low-value or problem customers (e.g., canceling customer accounts)
3. We try to passively discontinue relationships with low-value or problem customers (e.g., raising basic service fees).
4. We offer disincentives to low-value customers for terminating their relationships (e.g., offering poorer service).

3.43 Moderator

Entrepreneurial Orientation was measured as a nine-item composite single multi-dimensional construct made up of risk-taking, innovativeness, and proactive behaviors, as shown in Table 3.4 (Miller, 1983). Many entrepreneurship scholars suggest that the EO dimensions reflect a firm's strategic posture and are thus highly correlated with each other resulting in most studies combining them into one single factor, as done in this study (George & Marino, 2011; Wiklund & Shepherd, 2003). However, some researchers suggest that the dimensions of EO occur in different combinations where each dimension may relate differently to firm performance (Lumpkin & Dess, 2001). Thus, a post-hoc analysis was performed to evaluate the separate dimensions of EO and whether or not they relate differently to firm performance. The findings are outlined in the results section in Chapter 4.

Table 3.6 Entrepreneurial Orientation Scale

Seven-point endpoint scale where (1) denotes one end of the scale and (7) denotes the other end of the scale

In general, my firm favors…

1. (1) A strong emphasis on the marketing of tried-and-true products or services
   (7) A strong emphasis on R&D, technological leadership, and innovations

How many new lines of products or services has your firm marketed in the past five years (or since its establishment)?

2. (1) No new lines of products or services
   (7) Very many new lines of products or services

3. (1) Changes in product or service lines have been mostly of a minor nature
   (7) Changes in product or service lines have usually been quite dramatic

In dealing with its competitors, my firm…

4. (1) Typically responds to actions that competitors initiate
   (7) Typically initiates actions to which competitors then respond

5. (1) Is very seldom the first business to introduce new products/services, administrative techniques, operating technologies, etc.
   (7) Is very often the first business to introduce new products/services, administrative techniques, operating technologies, etc.

6. (1) Typically seeks to avoid competitive clashes, preferring a "live-and-let-live" posture
   (7) Typically adopts a very competitive, "undo-the-competitors" posture

In general, my firm has…

7. (1) A strong proclivity for low-risk projects (with normal and certain rates of return)
   (7) A strong proclivity for high-risk projects (with changes of very high returns)

In general, my firm believer that…

8. (1) Owing to the nature of the environment, it is best to explore it gradually via cautious, incremental behavior
   (7) Owing to the nature of the environment, bold, wide-ranging acts are necessary to achieve the firm's objective

When confronted with decision-making situations involving uncertainty, my firm…

9. (1) Typically adopts a cautious, "wait-and-see" posture in order to minimize the probability of making costly decisions
   (7) Typically adopts a bold, aggressive posture in order to maximize the probability of exploiting potential opportunities

3.44 Control Variables

This study took into account previously established control variables based on entrepreneurship literature (Wiklund & Shepherd, 2003). In previous research, firm age, firm size, and industry showed potential effects on firm performance, and when not incorporated into the research, lead to a misinterpretation of results (Dess et al., 1990; Love et al., 2002; Wiklund & Shepherd, 2003). In addition, firm ownership, as measured by whether or not the firm considered itself a family firm or not, showed to have potential effects on the strategic posture of the firm (Boling et al., 2016). For example, strategic posture among family firms showed potential effects on firm performance (Eddleston et al., 2008). As a result, the controls used in this study include the firm's industry, the firm's age in terms of years in business, the firm's size in terms of the number of employees, and whether or not the firm was a family business. Additional respondent characteristics, as shown in the survey in Appendix A, were also captured. These characteristics include participant age, gender, marital status, highest degree earned, ethnicity, position in the business, and the number of businesses previously owned.

3.5 Data Analysis

The hypotheses in this study were tested using ordinary least squares (OLS) regression with tests for moderation. All tests were performed using the latest version of IBM SPSS Statistics software. In addition, several steps were performed for data analysis and interpretation of the data. First, a preliminary analysis was performed to check for missing or incomplete data (Creswell, 2011; Forza, 2002). Second, bias tests were performed on the data to evaluate whether the variance was attributed to the method rather than the measure (Creswell, 2011; Podsakoff et al., 2003; Podsakoff et al., 2012).

Third, a descriptive analysis was performed on the data for all independent and dependent variables in the study. The descriptive analysis included the means, standard deviations, maximum, and minimum of all the variables in the study. Fourth, prior to testing the research model and hypotheses, regression diagnostic tests were performed to ensure the data met the assumptions of random distribution, normality, linearity, and homoscedasticity. Finally, each hypothesis was tested for statistical significance and for whether or not the results support the hypotheses in this dissertation. All results are outlined and presented in tables in Chapter 4 of this study.

CHAPTER 4: RESULTS

This chapter presents the results from testing the hypothesized relationships in the research model and from additional post hoc tests. The chapter first provides a preliminary analysis describing the sample, outlining the missing data statistics, checking for bias in the sample, and evaluating the scales measuring each construct. Next, descriptive statistics and bivariate correlation analysis were completed, followed by the regression results of the hypothesis tests. The chapter concludes with post hoc results evaluating additional relationships that include CRM technology and the individual components of the entrepreneurial orientation theory (innovativeness, proactiveness, and risk-taking).

4.1 Preliminary Analysis

Small and medium-sized enterprises were randomly identified using the SBA database for Charlotte, NC, and through a list of personal contacts across the United States. The original list of 1388 participants contained 395 emails that were either invalid or duplicates resulting in 993 actual surveys successfully emailed. Of the 993 surveys successfully emailed, 152 participants started the survey. Qualtrics recorded 87 participants as completing the survey, each representing a distinct SME, resulting in a completion rate of 57.2% and a response rate of 8.8%, as summarized in Table 4.1.

Table 4.1 Summary of Survey Respondents

Initial List of Emails	Invalid or Duplicate Emails	Successful Surveys Emailed	Surveys Started	Surveys Completed	Completion Rate	Response Rate
1388	395	993	152	87	57.2%	8.8%

Prior to data analysis, a missing value analysis was performed in SPSS to determine the valid number of cases to be used in the statistical analysis. Understanding

missing data is important since it may impact the sample size and lead to biased or erroneous results (Hair et al., 2010). As shown in Table 4.2, all dependent, independent, moderator, and control variables had less than 10% missing values. As a result, the listwise deletion approach was used to preserve the sample size for the correlation and regression analysis and included in Table 4.2 (Allison, 2001). The listwise method deletes from the sample any observation that has missing data on any variable in the model (Allison, 2001) and resulted in 87 valid cased being used in the statistical analysis. An advantage of using the listwise method is that if the estimates would be unbiased for the full data set, they will also be unbiased for the listwise deleted set (Allison, 2001).

Table 4.2 Missing Data Statistics

	Possible Responses	Actual Responses	Percent Missing	Original Mean	Std. Deviation	Listwise Mean 87 Cases
Dependent Variable						
Firm Performance	100	93	7%	4.49	1.20	4.47
Independent Variables						
CRM Initiation	100	98	2%	3.62	1.15	3.60
CRM Maintenance	100	97	3%	4.41	1.10	4.35
CRM Termination	100	97	3%	3.28	1.44	3.24
Moderator						
Entrepreneurial Orientation	100	95	5%	3.98	1.12	3.93
Controls						
Firm Age	100	95	5%	17.06	20.38	16.26
Firm Size	100	96	4%	24.74	81.98	22.75
Family Firm	100	95	5%	N/A	N/A	N/A
Industry	100	97	3%	N/A	N/A	N/A

In addition to evaluating missing or incomplete data, the study evaluated common method bias. Common method bias can occur when the respondent providing the measure of the predictor is the same person providing the criterion variable (Podsakoff et al., 2003). With SMEs being a reluctant survey population (Newby et al., 2003), it was

not possible to obtain data from multiple sources within the firm; thus, common method bias was a potential problem. In order to test for common method bias, a test suggested by Podsakoff and Organ (1986) was performed, where all the control variables, the three EO variables, and the three CRM variables (at the construct level due to the small sample size) were entered into a factor analysis. All six construct level variables explained 66.9% of the variance; thus, common method bias did not appear to be a problem. In addition, method scholars suggest controlling common method bias by creating a methodological separation of the measurement using different response formats for the various measures and using previously accepted and validated scales (Podsakoff et al., 2003). This study used validated scales for the dependent, independent, and moderator variables. Also, the survey was designed to have a significant separation between the independent variable and the dependent variable questions. For example, the independent variable questions were near the beginning of the 81-item survey and the dependent variables were near the end of the survey to create a proximal separation of the predictor and criterion variables (Podsakoff et al., 2003; Podsakoff et al., 2012).

Finally, the study evaluated the multi-item scales in the study by assessing scale reliability as measured by the coefficient alpha (DeVellis, 1991). The scales that were evaluated included three CRM scales, the performance scale, and the scale for entrepreneurial orientation. Alpha values can range from 0.0 to 1.0, with unacceptable values less than 0.70 (DeVellis, 1991). As shown in Table 4.3, all alpha values for the multi-item scales were above 0.7 and in the acceptable range suggesting the internal consistency of the items.

Table 4.3 Scale Reliability Analysis

Construct	Items	α
Independent Variables		
CRM Initiation	15	0.897
CRM Maintenance	20	0.926
CRM Termination	4	0.794
Dependent Variable		
Firm Performance	10	0.937
Moderating Variable		
Entrepreneurial Orientation	9	0.831

4.2 Descriptive Statistics and Correlation Analysis

After testing for bias in the sample, descriptive statistics showing the means and standard deviations were generated for all independent, dependent, and control variables, as outlined in Table 4.4. On average, SMEs in the sample have been in business for 16 years and employed 22 employees. Firms in the professional, scientific, and technical industry represented the largest industry category at 18% of the sample, and over 50% of the businesses stated they had owners who were not family members.

In addition to the descriptive statistics, bivariate correlations between the variables in the study are provided in Table 4.4. When analyzing the control variables (i.e., firm age, firm size, family firm, and industries), firm size significantly correlated with the most variables: firm performance, CRM initiation, and CRM maintenance. When analyzing the independent and moderator variables, CRM initiation, CRM maintenance, and entrepreneurial orientation showed a significant correlation with firm performance. The strongest correlation of the variables was between CRM initiation and CRM maintenance, indicated by a significant and positive relationship.

As discussed, some of the variables in my study are correlated; however, the highest observed variance inflation factor (VIF) equaled 2.1, and the highest value of the

condition index equaled 1.34. The variance inflation factor is a measure of multicollinearity where 10 is a common threshold that would suggest high collinearity. The values in this study were below the VIF threshold of 10, therefore alleviating the multicollinearity concern in this study (Hair et al., 2010) when using the VIF as the standard.

However, to further evaluate collinearity and the CRM and EO scales, confirmatory factor analysis was performed. Values that exceed .90 for normed comparative fit index (NFI) and comparative fit index (CFI) are generally considered to indicate acceptable fit. The CRM scales had an initial $\chi^2 = 90.46$ and showed an NFI of .836 and CFI of .938. The root mean square error of approximation (RMSEA) for the model was .073, which is below the .08 cut-off for indicating a good fit (Hu & Bentler, 1995; Mulaik, James, Alstine, Bennett, Ling, & Stilwell, 1989). Also, the χ^2/df ratio was 1.46 ($p<.01$), which is below the suggested 3.0 value, indicating a good fit (Kline, 1998).

The EO scales had an initial $\chi^2 = 53.38$ and showed an NFI of .837 and CFI of .896, both below the recommended normed comparative fit index of .90. The RMSEA for the model was .119, which is not below the .08 cut-off for indicating a good fit. Finally, the χ^2/df ratio was 2.22 ($p<.001$), which is below the suggested 3.0 value, indicating a good fit (Kline, 1998). Overall, the measurement model indicated a good fit with the data with some issues in the EO scales, which is addressed in the limitations section of the study.

Table 4.4 Descriptive Statistics and Bivariate Correlations

		Mean	Std. Deviation	1	2	3	4	5	6	7	8	9	10	11	12	13
1	Firm Performance	4.47	1.22													
2	CRM Initiation	3.60	1.18	**.437****												
3	CRM Maintenance	4.35	1.12	**.453****	**.731****											
4	CRM Termination	3.24	1.42	0.175	**.447****	**.413****										
5	Entrepreneurial Orientation	3.93	1.13	**.423****	**.290****	**.279****	0.057									
6	Firm Age	16.26	19.11	0.043	-0.015	-0.006	0.121	0.041								
7	Firm Size	22.75	78.45	**.220***	**.357****	**.212***	0.135	0.072	0.038							
8	Family Firm	1.28	0.45	-0.034	.308**	0.187	0.145	0.196	-0.082	**.313****						
9	Industry: Professional, Scientific, and Technical Services	0.20	0.40	0.125	0.157	.227*	0.090	-0.009	0.106	-0.094	0.150					
10	Industry: Health Care and Social Assistance	0.15	0.36	0.037	0.127	0.130	-0.009	-0.004	-0.097	0.001	0.03	-0.207				
11	Industry: Real Estate and Rental and Leasing	0.08	0.27	-0.132	0.067	-0.116	-0.021	-0.015	-0.109	**.299****	0.101	-0.146	-0.12			
12	Industry: Educational Services	0.07	0.26	-0.174	-0.082	-0.184	**-.215***	-0.140	0.030	-0.043	-0.066	-0.134	-0.11	-0.08		
13	Industry: Other Services	0.09	0.29	-0.015	-0.208	-0.092	-0.047	-0.196	-0.015	-0.070	-0.107	-0.157	-0.13	-0.09	-0.09	

n=87 Listwise

**correlation is significant at the .01 level

*correlation is significant at the .05 level

4.3 Regression Results

Prior to testing the research model and hypotheses, the data were examined to determine whether the underlying statistical assumptions for multivariate analysis were violated. The assumptions of multivariate analysis involve testing for normality, homoscedasticity, and linearity (Hair et al., 2010).

Normality is the fundamental assumption in a multivariate analysis in that if the data vary significantly from the normal distribution, all statistical tests are invalid (Hair et al., 2010). Normality can be tested graphically by a visual check of the histogram and a normal probability plot. The histogram compares the observed data with a distribution that approximates the normal distribution. Histograms are problematic for small sample sizes (less than 200) and can distort the visual representation of the data (Hair et al., 2010). An alternative method is the normal probability plot, which compares the cumulative distribution of a normal distribution where if the distribution is normal, the line representing the actual data follows the diagonal (Hair et al., 2010). In addition to the graphical tests for normality, the Kolmogorov-Smirnov statistical test can be used to test

for normality. The statistical test calculates the level of significance for the differences from a normal distribution (Hair et al., 2010). The modified Kolmogorov-Smirnov test is less useful for sample sizes smaller than 30, but sensitive in sample sizes larger than 1000 (Hair et al., 2010).

Since the sample size of this study was less than 200 but more than 30, the histogram, the normal probability charts, and the modified Kolmogorov-Smirnov tests were used to assess normality in the dependent, independent, and moderator variables. As shown in the normality statistics in Table 4.5 and in Figure 4.1 for the dependent variable firm performance, Figure 4.2 for the independent variable CRM initiation, and Figure 4.3 for the independent variable CRM maintenance all showed no significant deviation from normality based on the histogram, normal probability plot, and the modified Kolmogorov-Smirnov statistical test. The independent variable CRM termination, as shown in Table 4.5 and Figure 4.4, shows deviation from normality in the overall normality tests where the modified Kolomogorv-Smirnov decision rejected the null hypothesis that the distribution of CRM termination is normal. Based on the deviation from normality for the independent variable CRM termination, a data transformation was attempted to correct for nonnormality. The most common transformations for these types of distributions are taking the square root, logarithms, squared, cubed, or inverse of the variable (Hair et al., 2010). Several attempts were made to transform CRM termination, as shown in Table 4.6; however, none were successful; thus, no transformations were implemented for the variable. In cases where none of the transformations improve the normality, it is recommended that the variable is used in its original form (Hair et al., 2010). Finally, as shown in Figure 4.5, the moderating variable (entrepreneurial

orientation), showed a normal distribution, a normal probability plot, and support using the modified Kolmogorov-Smirnov test that the distribution of entrepreneurial orientation was normal.

Table 4.5 Normality Statistics

	Skewness	Std Error	Kurtosis	Std. Error	Null Hypothesis	Kolmogorov-Smirnov Significance Value (The significance level is 0.050)	Kolmogorov-Smirnov Decision
Dependent Variable							
Firm Performance	-0.084	0.250	-0.456	0.495	The distribution of firm performance is normal.	0.185	Retain the null hypothesis.
Independent Variables							
CRM Initiation	0.203	0.244	-0.425	0.483	The distribution of CRM Initiation is normal.	0.200	Retain the null hypothesis.
CRM Maintenance	-0.485	0.245	-0.413	0.485	The distribution of CRM Maintenance is normal.	0.200	Retain the null hypothesis.
CRM Termination	**0.023**	**0.245**	**-0.987**	**0.485**	**The distribution of CRM Termination is normal.**	**0.004**	**Reject the null hypothesis.**
Moderator							
Entrepreneurial Orientation	**0.013**	**0.247**	**-0.538**	**0.490**	The distribution of entrepreneurial orientation is normal.	0.200	Retain the null hypothesis.

Table 4.6 Data Transformation: Independent Variable - CRM Termination

	Skewness	Std Error	Kurtosis	Std. Error	Null Hypothesis	Kolmogorov-Smirnov Significance Value	Kolmogorov-Smirnov Decision	Data Transformation
Independent Variable								
CRM Termination	0.023	0.245	-0.987	0.485	The distribution of CRM Termination is normal.	0.004	Reject the null hypothesis.	None
Logarithm CRM Termination	-0.724	0.245	-0.465	0.485	The distribution of Logarithm CRM Termination is normal.	0.000	Reject the null hypothesis.	Logarithm
Squared term CRM Termination	0.701	0.245	-0.123	0.485	The distribution of Squard term CRM Termination is normal.	0.002	Reject the null hypothesis.	Squared term
Cubed term CRM Termination	1.380	0.245	2.059	0.485	The distribution of Cubed term CRM Termination is normal.	0.000	Reject the null hypothesis.	Cubed term
Inverse CRM Termination	1.484	0.245	1.195	0.485	The distribution of Inverse CRM Termination is normal.	0.000	Reject the null hypothesis.	Inverse
Exponential CRM Termination	3.465	0.245	15.677	0.485	The distribution of Exponential CRM Termination is normal.	0.000	Reject the null hypothesis.	Exponential

The next two regression assumptions are those of homoscedasticity and linearity. Homoscedasticity is the assumption that the dependent variable exhibit equal levels of variance across all levels of the predictor variables (Hair et al., 2010). Homoscedasticity is important in this study because it is desirable if the variance explained by firm

performance is not concentrated in a limited range of the independent variables CRM initiation, CRM maintenance, and CRM termination. The assumption of linearity relates to the pattern of association between each pair of variables and the ability of the correlation coefficient to adequately represent the relationship (Hair et al., 2010).

This study was able to assess homoscedasticity by viewing the scatterplots and assessing linearity through a plot of the residuals from a simple linear regression of the variables. As shown in Figures 4.6 through Figures 4.9, the independent variables CRM initiation, CRM maintenance, and CRM termination were regressed individually against the dependent variable firm performance. In each case, equal variance dispersion was displayed in the scatter plots, and the residuals were normal in the residuals plot showing that none of the dependent variables violated the assumption of homoscedasticity or linearity. After testing the underlying regression assumptions, the hypotheses were tested using multiple regression analysis yielding three models, as outlined in the results provided in Table 4.7.

In all models, the study controlled for firm age, size, family firm, and industry. In Model 1, the size of the firm was significantly and positively related to firm performance (β=.004, $p<.01$). The model was significant ($p<.05$) with an adjusted R^2 of 0.07 and suggests that the larger firm size, the better the firm performance.

In order to test hypotheses 1, 2, and 3, the three independent variables CRM initiation, CRM maintenance, and CRM termination were entered in Model 2. The adjusted R^2 increased to 0.196, which was significant at the .001 level. Hypothesis 1 proposed that higher levels of CRM initiation processes in SMEs were positively associated with SME performance; however, the hypothesis was not supported.

Hypothesis 2 proposed that higher levels of CRM maintenance processes in SMEs were positively associated with SME performance. In support of hypothesis 2, CRM maintenance was positively and significantly related to firm performance (β=.453, p<.001). Hypothesis 3 proposed that the CRM termination processes in SMEs were negatively associated with firm performance; however, the hypothesis was not supported due to the relationship not being significant. Overall, Model 2 was significant (p<.001) and accounted for 19.6% of the variance in firm performance, as indicated by the adjusted R^2 value, which is the recommended statistic reported for small sample sizes.

In order to test the hypothesized moderation effects of entrepreneurial orientation, the moderator and the three interaction terms were entered in Model 3. The adjusted R^2 value increased to 0.284, with the addition of the moderating variable and the interaction effects. Hypothesis 4 argued that entrepreneurial orientation would moderate the relationship between CRM initiation and SME performance; however, neither the main effect or the interaction effect was significant, not supporting hypothesis 4. Hypothesis 5 argued that entrepreneurial orientation would moderate the relationship between CRM maintenance and SME performance. Although the model showed that the main effects of CRM maintenance (β=.438, p<.001) and entrepreneurial orientation (β=.388, p<.001) were significantly and positively related to firm performance, the interaction effect was not significant thus not supporting hypothesis 5. Finally, hypothesis 6 argued that entrepreneurial orientation would moderate the relationship between CRM termination and SME performance; however, neither the main effect or the interaction effect was significant, thus not supporting hypothesis 6. A summary of the regression results for all three models is shown in Table 4.7 and of the hypothesized relationships in Table 4.8.

Table 4.7 Regression Results

Variables	Model 1	Model 2	Model 3
	β	β	β
Controls			
Firm Age	-0.014	0.046	0.032
Firm Size	**0.004****	0.130	0.126
Family Business	-0.120	-0.124	-0.176
Industry: Professional, Scientific, and Technical Services	0.125	0.023	0.048
Industry: Health Care and Social Assistance	0.013	-0.022	-0.009
Industry: Real Estate and Rental and Leasing	**-0.963***	-0.081	-0.086
Industry: Educational Services	-0.178	-0.093	-0.064
Industry: Other Services (except Public Administration)	-0.014	0.027	0.085
Independent Variables			
CRM Initiation		0.228	0.172
CRM Maintenance		**0.453*****	**0.438*****
CRM Termination		-0.015	0.008
Moderating Variables			
Entrepreneurial Orientation			**0.388*****
Interaction Effects			
Entrepreneurial Orientation*CRM Initiation			0.031
Entrepreneurial Orientation*CRM Maintenance			0.106
Entrepreneurial Orientation*CRM Termination			-0.031
R	0.302	0.453	0.548
R^2	0.091	0.205	0.301
Adjusted R^2	0.07	0.196	0.284
ΔR^2	0.043	0.205	0.095
F	**4.28***	**21.961*****	**18.057*****

Standardized regression coefficients shown
*significant at the 0.05 level
**significant at the 0.01 level
***significant at the .001 level

Table 4.8 Hypothesized Relationships and Results

CRM & Firm Performance		
H1	Higher levels of CRM initiation capability in SMEs are positively associated with firm performance.	Not Supported
H2	Higher levels of CRM maintenance capability in SMEs are positively associated with firm performance.	**Supported**
H3	Higher levels of CRM termination capability in SMEs are negatively associated with firm performance.	Not Supported
The Moderating Role of EO		
H4	The relationship between CRM initiation capability and firm performance is moderated by EO, such that higher levels of EO enhance the positive relationship between CRM initiation capability and firm performance.	Not Supported
H5	The relationship between CRM maintenance capability and firm performance is moderated by EO, such that higher levels of EO enhance the positive relationship between CRM maintenance capability and firm performance.	Not Supported
H6	The relationship between CRM termination capability and firm performance is moderated by EO, such that higher levels of EO enhance the negative relationship between CRM termination capability and firm performance.	Not Supported

4.4 Post Hoc Tests and Results

As reported, this study did not support the hypothesized relationships that suggest that the relationships between the three CRM processes (initiation, maintenance, and termination) and SME performance were moderated by EO, such that higher levels of EO enhance the positive or negative relationships between CRM processes and firm performance. To further evaluate the non-findings, an analysis of EO was conducted to study the sub-dimensions. Table 4.9 shows the results of models testing each component of EO (proactiveness, innovativeness, and risk-taking) as a moderator of the relationships among CRM initiation, CRM maintenance, CRM termination, and SME performance.

In Model 4, firm performance was regressed on the control variables, CRM initiation, the components of EO, and the interaction terms. CRM initiation (β=.472, $p<.001$) and EO proactiveness (β=.454, $p<.001$) showed significance; however, none of the interaction terms showed significance. The model was significant ($p<.001$), with an adjusted R^2 of 0.331.

In Model 5, firm performance was regressed on the control variables, CRM maintenance, and the components of EO. CRM maintenance (β=.428, $p<.05$) and the EO proactiveness (β=.424, $p<.001$) showed significance; however, none of the interaction terms showed significance. The model was significant ($p<.001$), with an adjusted R^2 of 0.320.

Finally, in Model 6, firm performance was regressed on the control variables, CRM termination, and the components of EO. EO proactiveness (β=.451, $p<.001$) showed significance; however, none of the interaction terms showed significance. The model was significant ($p<.001$), with an adjusted R^2 of .204.

Table 4.9 Post-Hoc Results: EO Components

Variables	Model 4	Model 5	Model 6
	β	β	β
Controls			
Firm Age	-0.007	0.009	-0.022
Firm Size	0.135	0.115	0.178
Family Business	**-0.279***	-0.176	-0.128
Industry: Professional, Scientific, and Technical Services	0.098	0.045	0.125
Industry: Health Care and Social Assistance	0.005	0.001	0.052
Industry: Real Estate and Rental and Leasing	-0.112	-0.067	-0.099
Industry: Educational Services	-0.139	-0.094	-0.150
Industry: Other Services (except Public Administration)	0.103	0.071	0.053
Independent Variables			
CRM Initiation	**0.472*** **		
CRM Maintenance		**0.428***	
CRM Termination			0.123
Post Hoc Analysis: Moderator - Entrepreneurial Orientation Components			
Entrepreneurial Orientation - Innovativeness	0.107	0.099	0.117
Entreprenneurial Orientation - Proactiveness	**0.454*** **	**0.424*** **	**0.451*** **
Entrepreneurial Orientation - Risk Taking	-0.040	-0.023	-0.021
Post Hoc Analysis: Moderator - Entrepreneurial Orientation Components Interaction Effects			
Entrepreneurial Orientation - Innovativeness*CRM Initiation	0.033		
Entreprenneurial Orientation - Proactiveness*CRM Initiation	0.000		
Entrepreneurial Orientation - Risk Taking*CRM Initiation	0.072		
Entrepreneurial Orientation - Innovativeness*CRM Maintenance		0.099	
Entreprenneurial Orientation - Proactiveness*CRM Maintenance		0.061	
Entrepreneurial Orientation - Risk Taking*CRM Maintenance		0.122	
Entrepreneurial Orientation - Innovativeness*CRM Termination			-0.243
Entreprenneurial Orientation - Proactiveness*CRM Termination			-0.096
Entrepreneurial Orientation - Risk Taking*CRM Termination			0.002
R	0.595	0.566	0.451
R^2	0.354	0.320	0.204
Adjusted R^2	0.331	0.304	0.194
ΔR^2	0.048	0.115	0.204
F	**15.359*** **	**19.8*** **	**21.983*** **

Standardized regression coefficients shown
*significant at the 0.05 level
**significant at the 0.01 level
***significant at the .001 level

In addition to the EO component post-hoc test, an additional analysis was performed to determine another potential moderator of the CRM processes on SME performance. The empirical examination in this study did not find significant main effects between CRM initiation or CRM termination and firm performance. As a result, a post hoc test was conducted for a potential moderator that may influence these relationships to provide possible explanations for the non-findings. The study focused on CRM technology as a potential moderator. CRM technology was measured using a 4-item validated scale, as shown in Table 4.10 by Reinartz et al. (2004). The results of CRM technology as a potential moderator is presented in Table 4.11.

In Model 7, firm performance was regressed on all independent and control variables in addition to the proposed moderating variable CRM technology and its interactions with the independent variables. The model was significant ($p<.001$) with an adjusted R^2 of 0.196; however, the results did not show a significant moderating relationship between CRM technology and the independent variables. The only significant relationship identified in the model was the main effect for CRM maintenance ($\beta=.546$, $p<0.001$), remaining consistent with supporting hypothesis 2 in this study that suggests higher levels of CRM maintenance processes in SMEs are positively associated with firm performance.

Table 4.10 CRM Technology Scale

With regard to your business, to what extent do you agree with the following (1 = Strongly Disagree; 7 = Strongly Agree)
Scale Reliability Analysis: $\alpha = .846$
1. We invest in technology to acquire and manage "real time" customer information and feedback.
2. We have a dedicated CRM technology in place.
3. We have technologies that allow for one-to-one communications with potential customers
4. Relative to our competitors the quality of our information technology resources is larger.

Table 4.11 Post Hoc Results – CRM Technology as a Moderator

Variables	Model 7 β
Controls	
Firm Age	0.046
Firm Size	0.130
Family Business	-0.124
Industry: Professional, Scientific, and Technical Services	0.023
Industry: Health Care and Social Assistance	-0.022
Industry: Real Estate and Rental and Leasing	-0.081
Industry: Educational Services	-0.093
Industry: Other Services (except Public Administration)	0.027
Independent Variables	
CRM Initiation	0.228
CRM Maintenance	**0.546*** **
CRM Termination	-0.015
Post Hoc Analysis: Moderator - CRM Technology	
CRM Technology	0.121
Post Hoc Analysis: Moderator - CRM Technology Interaction Effects	
CRM Technology*CRM Initiation	0.043
CRM Technology*CRM Maintenance	0.009
CRM Technology*CRM Termination	-0.107
R	0.453
R^2	0.205
Adjusted R^2	0.196
ΔR^2	0.205
F	**21.961*** **
Standardized regression coefficients shown	
*significant at the 0.05 level	
**significant at the 0.01 level	
***significant at the .001 level	

The final post-hoc analysis that was completed was to evaluate the CRM dimensions separately due to the high collinearity between CRM initiation and CRM maintenance. Even though the CFA showed a good fit, the results of running models with each of the CRM variables (initiation, maintenance, and termination), separately with the control and moderating variables, yielded some significance. The main effects of CRM initiation and CRM maintenance showed significance, as shown in Table 4.12; however, no significance was detected for any of the interaction effects.

Table 4.12 Post Hoc Results – CRM Dimensions Modeled Separately

Variables	Model 8	Model 9	Model 10	Model 11	Model 12	Model 13
Controls	β	β	β	β	β	β
Firm Age	0.026	0.014	0.046	0.032	-0.014	-0.026
Firm Size	0.074	0.147	0.13	0.126	0.364**	0.395***
Family Business	-0.191	-0.28*	-0.124	-0.176	-0.12	-0.244*
Industry: Professional, Scientific, and Technical Services	0.06	0.102	0.023	0.048	0.125	0.168
Industry: Health Care and Social Assistance	-0.017	-0.006	-0.022	-0.009	0.013	0.021
Industry: Real Estate and Rental and Leasing	-0.161	-0.133	-0.081	-0.086	-0.281*	-0.258*
Industry: Educational Services	-0.137	-0.108	-0.093	-0.064	-0.178	-0.131
Industry: Other Services (except Public Administration)	0.081	0.121	0.027	0.085	-0.014	0.056
Independent Variables						
CRM Initiation	0.52***	0.481***				
CRM Maintenance			0.564***	0.438***		
CRM Termination					0.13	0.137
Moderating Variables						
Entrepreneurial Orientation		0.423***		0.388***		0.528***
Interaction Effects						
Entrepreneurial Orientation*CRM Initiation		0.023				
Entrepreneurial Orientation*CRM Maintenance				0.106		
Entrepreneurial Orientation*CRM Termination						-0.100
R	0.438	0.579	0.453	0.548	0.221	0.537
R^2	0.192	0.335	0.205	0.301	0.302	0.288
Adjusted R^2	0.182	0.312	0.196	0.284	0.091	0.254
Std. Error of the Estimate	1.09626	1.00586	1.0918	1.03029	1.16898	1.04731
ΔR^2	0.192	0.048	0.205	0.095	0.043	0.036
F	20.384	6.051	21.961	11.453	3.978	4.163

Standardized regression coefficients shown
*significant at the 0.05 level
**significant at the 0.01 level
***significant at the .001 level

CHAPTER 5: DISCUSSION AND CONCLUSIONS

This chapter provides a discussion of the research findings in six major sections. The first section provides an overview of the study. The second section offers a discussion from the tests of the hypothesized relationships in the research model. The third section describes the contributions to the literature, theory, and practice. The final three sections address the limitations of the study, offers suggestions for future research, and ends with conclusions.

5.1 Overview

Small and medium-sized enterprises are the backbone of the United States economy accounting for 99% of all firms and 8.4 million net new jobs in the last 17 years in the United States (The United States Small Business Administration, 2018), thus leading researchers to evaluate factors that impact SME performance and sustained competitive advantage (Cader & Leatherman, 2011; Headd & Kirchhoff, 2009). Many researchers suggest that marketing capabilities can be a source of sustained competitive advantage for SMEs (Day, 1994; Krasnikov & Jayachandran, 2008; O'Cass et al., 2012; Vorhies et al., 1999). This study evaluated whether CRM processes are one of the marketing capabilities that impact SME performance.

CRM has many definitions that stem from being defined as a process, as a strategy, and/or as a technology (Ahearne et al., 2012; Payne & Frow, 2005; Reinartz et al., 2004; Zablah et al., 2004). Using a combination of definitions from Payne and Frow (2005) and Reinartz et al. (2004), this study defined CRM as both a strategic approach and as a systematic process to manage customer relationships at the stages of initiation, maintenance, and termination. The literature presents inconsistent findings on whether

CRM technology adoption positively influences firm performance (Chang et al., 2010; Zablah et al., 2004). As such, the purpose of this study was to evaluate the impact of CRM processes on SME performance as opposed to the traditional view of assessing the impact of CRM technology adoption on firm performance. The first objective was to review, synthesize, and identify the gaps in the literature. The second objective was to investigate the impact of CRM processes on SME performance in terms of growth and profitability. This chapter discusses the findings of this analysis.

5.2 Research Findings

In the current study, the data partially supported the conceptual model that CRM processes impact SME performance. This is somewhat consistent with the limited number of studies that have evaluated CRM as a multi-dimensional process (Krishnan et al., 2014; Reimann et al., 2010; Reinartz et al., 2004); however, key differences are noted throughout this discussion. The first three hypotheses in the model evaluated the impact of CRM initiation, maintenance, and termination processes on SME performance. The final three hypotheses in the model evaluated the moderating role of entrepreneurial orientation on the relationships among CRM initiation, maintenance, and termination to SME performance.

Hypothesis 1 proposed that higher levels of CRM initiation processes in SMEs were positively associated with firm performance. This study did not support this relationship. During the initiation stage, firms focus on processes related to acquiring new customers and/or recover previous customers (Krishnan et al., 2014; Reimann et al., 2010; Reinartz et al., 2004). Additionally, in the initiation stage, SMEs tend to use networking or social events to obtain customer information that helps them evaluate

potential customers or re-acquire old customers (Gilmore et al., 2001; Harrigan et al., 2012a; Jones & Rowley, 2011). For instance, if SMEs have processes in place to attend monthly chamber of commerce events or regional trade shows, the purpose may not be for gaining new information on potential new customers, but rather engage with existing customers at these events (Gilmore et al., 2001). In addition, due to the cross-sectional nature of the data, there may not be enough lag time in the data for the performance impact to show. On the other hand, this finding suggests that SMEs spend less time focusing on acquiring new customers (or re-acquiring old customers) at these networking and social outings and focus more on maintaining existing customer relationships. This finding is somewhat inconsistent with the study completed by Reinartz et al. (2004), which included large firms, which found that the implementation of CRM initiation processes was associated with better firm performance, although the strongest effect was in CRM maintenance processes (Reinartz et al., 2004). While this study can not interpret a nonsignificant result, it may be that small and medium-sized enterprises focus more on growing their business with existing customers versus expanding their customer base through formal CRM initiation processes and activities.

Moreover, this leads to the findings for hypothesis 2, which suggested that higher levels of CRM maintenance processes in SMEs were positively associated with firm performance. This study supported this relationship. During the maintenance stage, firms focus on processes related to cultivating and strengthening existing relationships with customers (Krishnan et al., 2014; Reimann et al., 2010; Reinartz et al., 2004). Firms cultivate and strengthen these customer relationships by cross-selling or up-selling products or services (Reinartz et al., 2004) and through constant communication

(Gilmore et al., 2006; Harris & Rae, 2009). For example, respondents tended to have processes in place to have interactive two-way communication with customers. Based on several telephone follow-up interviews with SMEs, these processes included communicating using text messages, quick emails, and setting up quick phone calls using online calendar tools. The findings suggest the use of these types of communication tools may be due to SMEs having customers as a part of their personal and professional networks (Gilmore et al., 2006; Harris & Rae, 2009), allowing them more opportunities to communicate and obtain customer information across multiple channels. For instance, some SMEs used their personal social media accounts (e.g., Facebook, Instagram, etc.) (Harris & Rae, 2009) as well as their professional social media accounts (e.g., LinkedIn) (Song et al., 2019) to communicate with customers and obtain key customer information to personalize products and services (Gilmore et al., 2006; Harris & Rae, 2009; Kingsley & Malecki, 2004). Furthermore, SMEs leveraged personal events such as hosting sports watch parties at their homes in addition to professional events such as trade shows or the local chamber of commerce events (Gilmore et al., 2001). These social settings with customers drive customer communication resulting in the collection of additional information to personalize products or services that lead to long-term relationships and referrals (Harrigan & Miles, 2014; Stokes, 2000). Hence, the findings generally suggest that SMEs that have these maintenance processes in place tend to perform better than firms without these capabilities in terms of growth and profitability. The importance of this association is demonstrated in this study and shows the impact of having formal processes that help maintain customer relationships. Moreover, this finding is consistent with Reinartz et al.'s (2004) original study as well as the belief that CRM processes can

be leveraged to drive performance (Srivastava et al., 2001). As one survey participant stated, “Constant one-on-one personal communication with my customers at both personal and professional events is essential.” The mixing of personal and professional relationships with customers separates many SMEs from large corporations (Kingsley & Malecki, 2004; Watson, 2007).

Hypothesis 3 suggested that higher levels of CRM termination processes in SMEs were negatively associated with firm performance. This study did not find this relationship significant and, thus, did not support this hypothesis. During the termination stage, firms focus on processes related to discontinuing relationships with customers (Krishnan et al., 2014; Reimann et al., 2010; Reinartz et al., 2004). Termination processes include having a policy or procedure in place to end a relationship with a customer or deactivate a customer account (Reimann et al., 2010; Reinartz et al., 2004). Although this study cannot interpret a non-significant result, the study speculates that SMEs either did not have processes in place to terminate customers or were hesitant to terminate relationships with customers due to the personal connections developed over time. Research suggests that even if customers have been identified as non-profitable, they may have an influence on other customers through word-of-mouth and social media (Malthouse et al., 2013). This finding is consistent with Reinartz et al. (2004) study that suggests the possibility that companies are not effective at implementing customer termination processes (Reinartz et al., 2004).

This study also examined the moderating role of entrepreneurship orientation on the relationship between the three CRM processes and SME performance. Entrepreneurial orientation consists of a firm’s strategic posture in innovative, risk-

taking, and proactive behaviors (Miller, 1983). Researchers have shown that EO can enhance the capabilities and performance of firms (Covin & Slevin, 1989; Wales et al., 2013; Wang, 2008; Wiklund & Shepherd, 2003). Therefore, hypotheses 4, 5, and 6 in this study argued that higher levels of EO enhance the positive or negative relationship between CRM initiation processes, CRM maintenance processes, and CRM termination processes and firm performance. Contrary to expectations, this study did not support either of these hypotheses and showed no significant relationships.

Hypothesis 4 argued that higher levels of EO make the relationship between CRM initiation and firm performance more positive, whereas lower levels of EO make this relationship less positive. Past research showed that initiation processes (Reinartz et al., 2004) were significant for a sample that consisted of large businesses; however, this study did not support this relationship in addition to not supporting the moderating impact of entrepreneurial orientation. A possible explanation could be that many of the SME customers are generated from referrals (Stokes, 2000), which aligns under CRM maintenance processes (Krishnan et al., 2014; Reimann et al., 2010; Reinartz et al., 2004) versus CRM initiation processes, where hypothesis 5 argued that higher levels of EO make the relationship between CRM maintenance and firm performance more positive, whereas lower levels of EO make this relationship less positive. As in past research, CRM maintenance processes were positively related to firm performance (Reinartz et al., 2004), however, having a strategic posture that is more entrepreneurial did not enhance the use of the knowledge gained by having processes that focused on cross-selling, up-selling, and referrals; thus not supporting hypothesis 5.

Finally, Hypothesis 6 suggested that higher levels of EO make the relationship between CRM termination and firm performance more negative, whereas lower levels of EO make this relationship less negative. This study did not support this hypothesis. The CRM termination processes were not significant in this study as a main effect or in the original study (Reinartz et al., 2004); thus suggesting that SMEs with a strategic posture that is more entrepreneurial in nature would not enhance the non-significant relationship even in combination with procedures that help exit non-profitable customer relationships. This could be because SMEs are reluctant to terminate relationships with customers who are a part of their personal and professional networks (Gilmore, 2011). In addition, it could be that SMEs do not terminate relationships with customers due to the special relationships that customers have with each other as a part of social networks (Malthouse et al., 2013).

Overall, when evaluating these moderation findings against existing entrepreneurial theory, they appear to be inconsistent with the study by Wiklund and Shepherd (2003), exploring the extent to which CRM can be viewed as a knowledge-based resource. Wiklund and Shepherd (2003) suggest that SME firms high in EO have the ability to find and discover new opportunities that differentiate themselves from their competitors using knowledge-based resources. On the other hand, this study asserts that an SME with an entrepreneurial strategic posture, measured as a single construct (Miller, 1983), does not enhance the relationship among CRM processes and SME performance as expected, thus prompting additional research on the individual sub-dimensions of entrepreneurial orientation.

Due to the significant number of non-findings, post-hoc analyses were conducted for potential moderators of the relationship between CRM processes and SME performance. First, the sub-dimensions of entrepreneurial orientation (innovativeness, proactiveness, and risk-taking) were examined as moderators. Lumpkin and Dess (1996) proposed the independence of the EO dimensions and suggested that success can be achieved when only some of the factors are present. Consistent with Lumpkin and Dess (1996) theory, the proactiveness dimension of entrepreneurial orientation had a significant moderating role on CRM termination and firm performance, suggesting that SMEs that have a strategic posture that is more proactive enhance the use of information obtained from their CRM termination processes that positively impact firm performance (Altinay et al., 2016; Keh et al., 2007; Lumpkin & Dess, 1996). Researchers suggest that entrepreneurial marketing is characterized by proactive behavior (Jones & Rowley, 2011) and thus, this finding is consistent with scholars who find that individual sub-dimensions of EO can successfully enhance relationships (Lumpkin & Dess, 1996).

In this context, SME's proactive behavior relates to how they use and seize on customer information about market opportunities (Altinay et al., 2016; Keh et al., 2007; Lumpkin & Dess, 1996) to exit customer relationships to benefit from and react to environmental uncertainty (Baker & Sinkula, 2009; Reinartz et al., 2004). For example, an SME may identify that participating in a specific trade event has produced no profitable clients and by proactively and aggressively discontinuing attending this event, it ultimately results in terminating clients that attend the event (Malthouse et al., 2013) resulting in a decrease in performance in the short-term.

Second, CRM technology was examined as a moderator. The post-hoc analysis indicated that having CRM technology did not moderate the relationship among any of the CRM variables (initiation, maintenance, termination). This finding further supports the notion that customer relationship management is about more than technology (Payne & Frow, 2005; Reinartz et al., 2004; Zablah et al., 2004). In addition, the finding further suggests that having CRM maintenance processes, that include social media and constant communication using simple technology such as email, spreadsheets, and calendar tools is more impactful on firm performance than having specific CRM technology (Gilmore, 2011; Guha et al., 2018; Harrigan et al., 2012a; McGowan et al., 2001; Reinartz et al., 2004). Overall, this finding was consistent with Reinartz et al. (2004), who found that CRM technology use was not necessarily linked to positive economic performance (Reinartz et al., 2004).

5.3 Contributions

The examination of factors that impacted SME performance and sustained competitive advantage drew from several theories and constructs (Headd & Kirchhoff, 2009). This research addressed the call for further research to explore theories and constructs developed in the field of management, entrepreneurship, and marketing to capture and evaluate resource capabilities impacting SME performance and their ability to have a sustained competitive advantage over their rivals (Bocconcelli et al., 2018; Jones & Rowley, 2011).

From a theoretical perspective, this research added to and expanded on the limited marketing research on process focused customer relationship management literature (Krishnan et al., 2014; Rababah et al., 2011; Reinartz et al., 2004). The findings extended

the research by Reinartz et al. (2004) by evaluating CRM processes in SMEs versus large organizations (Reinartz et al., 2004). The findings underscore the CRM maintenance process activities that can be used to obtain information that is likely to bolster firm performance. In addition, through the post-hoc analysis, the study suggests that CRM technology adoption is not a significant factor when evaluating CRM impact on firm performance (Harrigan et al., 2012b; Reinartz et al., 2004).

Furthermore, the study expands on entrepreneurship literature by evaluating EO as a moderator of the relationship between CRM processes and SME performance. The study also adds to the understanding of the role of EO and firm performance (Rauch et al., 2009), specifically in SMEs, when identifying firms most likely to succeed using customer relationship marketing processes. Researchers have conflicting views on whether EO represents one composite dimension (Covin & Wales, 2012) versus the independence of those dimensions (Lumpkin & Dess, 1996). The post-hoc analysis for this study suggested that the individual components of EO may impact SME performance differently, thus adding to the body of research in entrepreneurship that further examines the impact of entrepreneurial orientation (Covin & Wales, 2019).

This study empirically develops and tests the construct that SMEs who implement CRM maintenance processes will have improved firm performance. For practitioners, this research has the potential to shed light on or provide a roadmap for CRM maintenance activities that may enhance firm performance. Small and medium-sized enterprise owners can potentially focus on events and activities with an emphasis on personal one-on-one and interactive communication with customers. For example, SMEs may use social networks and the hosting of personal events to gather information from existing

customers to tailor products and services that ultimately help them achieve better firm performance and sustained competitive advantage over their rivals.

5.4 Limitations and Future Research

The contributions of this study must be viewed in light of the limitations. The limitations include the following; the cross-sectional nature of the study (common method bias), the small sample size, the use of personal contacts, the subjective performance data, endogeneity, and multicollinearity (Aguinis, 1995; Atkinson & Flint, 2001; Doty & Glick, 1998; Hair et al., 2010; Podsakoff et al., 2012; Rauch et al., 2009; Simsek & Veiga, 2000; Vanderstoep & Johnson, 2008).

The first limitation was that CRM processes were studied using cross-sectional data. The use of cross-sectional data does not evaluate the phenomenon over time and cannot infer causal relationships (Rauch et al., 2009). In addition, since the variables were measured at the same time from a common source, common method variance is possible (Podsakoff et al., 2012). Previous research suggests that while common method bias may be present, it may not always meaningfully impact the results or conclusions (Doty & Glick, 1998). On the other hand, as for future research, a longitudinal study could be conducted using multiple participants from each firm, thus providing additional insights that evaluate how the implementation of CRM processes change over time while also solving for common method bias.

The second limitation of the study is the small sample size. Although 100 SMEs participated in the study, only data for 87 firms were included after the missing data analysis. This sample size poses concerns with statistical power (Aguinis, 1995; Hair et al., 2010). Since the study only found support for one out of three main effect hypotheses

and for none of the three moderating hypotheses in the study, it is possible that a hypothesis may have been rejected due to low power (Aguinis, 1995). A future study may increase the sample size by increasing the number of respondents by developing and validating a shorter, less time-intensive survey.

The third limitation of the study was the use of personal contacts to address the low response rates from the SBA database. Consequently, although the use of personal contacts is a suggested approach by some scholars for hard to reach populations, researchers note that the sample is biased and do not allow for generalizability (Atkinson & Flint, 2001; Vanderstoep & Johnson, 2008). The personal contacts were not representative of the overall population because the participants contain many interrelationships and share similar interests (Vanderstoep & Johnson, 2008). An alternative approach is to work with organizations such as The National Small Business Association that have a large population of SMEs that can be sampled. The National Small Business Association is an advocacy organization that has over 65,000 members in every state and every industry in the United States (The National Small Business Association, 2019).

The fourth limitation of the study was that it relied on self-reported subjective data to assess the performance of SMEs, whereas objective financial performance measures and measuring performance against goals would have been desirable. However, objective performance measures were not available since the SMEs in the study were privately held businesses. Furthermore, researchers have suggested a correlation between self-reported data and objective performance data (Brush & Vanderwerf, 1992; Eddleston et al., 2008). The performance measures used in this study have been employed in the

literature and have been shown to be strongly related to objective performance (Eddleston et al., 2008; Kellermanns et al., 2012; Love et al., 2002); however, it is still a limitation of the study. None-the-less, future research can include publicly traded SMEs to evaluate the relationship between objective and subjective performance.

The fifth limitation of the study is the potential for reverse causality or endogeneity. In particular, the effects of the CRM processes could potentially be an artifact of the firm performance itself. This study was unable to test for endogeneity because the study did not use instrumental variables. Future research can add instrumental variables to allow for the testing of endogeneity (Hamilton & Nickerson, 2003; Semadeni et al., 2014)

The sixth limitation of the study is the high collinearity between the CRM initiation and CRM maintenance variables. High collinearity may cause problems with statistical power and the interpretation of results (Aguinis, 1995; Hair et al., 2010). A confirmatory factor analysis was performed, and although several of the fit indices showed good fit, the analysis noted some concerns. In addition, the variables were mean-centered to minimize the effect of multicollinearity; however, some still exist.

In addition to future research to address each of the limitations, further research can examine additional areas that impact SME performance using qualitative methods. A qualitative analysis using SME interviews may extract interesting and insightful information that possibly will not be discovered using a survey (Hill & Tiu Wright, 2001). Forty-two of the SMEs in the study indicated that they could be available to provide an interview to discuss their businesses, and this is consistent with other research of SMEs (Guha et al., 2018; Harrigan et al., 2012b; Hill & Tiu Wright, 2001).

Another future research opportunity would be to evaluate the impact of CRM processes and SME performance using a different theoretical lense. For example, researchers state that CRM is one of the business processes in supply chain management that form critical links across the supply chain and a source of sustained competitive advantage (Hendricks et al., 2007; Mentzer et al., 2008; Srivastava et al., 1999). The presence of other key supply chain business processes, such as supplier relationship management (Mentzer et al., 2008), could be potential mediators or moderators of the relationship between CRM processes and SME performance.

Future research can also evaluate alternative moderators to the relationship between CRM processes and SME performance to possibly demonstrate how CRM could be an important VRIN resource. For example, researchers have examined the impact of strategic alliances between two or more SMEs as a means to bundle resources and capabilities for a sustained competitive advantage against other rivals (Brouthers et al., 2015; Oliveira Junior et al., 2016; Street & Cameron, 2007). The examination of the degree at which strategic alliances exist could have a moderating impact on customer relationship management processes and SME performance.

Additionally, evaluating SMEs as a longitudinal study may provide additional insights on how the degree of customer relationship management processes impacts the death rates of SMEs. Past conceptual research suggests that SMEs generally fail due to weaknesses in financial and/or marketing management (Mc Cartan-Quinn & Carson, 2003); however, few empirical studies exist that test this theory (Cader & Leatherman, 2011), outside of simulation models (Song et al., 2019). Future research can examine

SMEs over time to observe factors that impact their overall firm performance in terms of growth and profitability.

Finally, future research can be based on lessons learned from conducting this study. The length of the survey proved to be a significant hindrance to survey completion. If scale development is not possible, another scale should be used to measure CRM processes. In addition, given the number of non-significant results, a future study should be longitudinal in nature and include additional control variables. Furthermore, a future study, with more data, might conduct additional statistical tests that require larger sample sizes.

5.5 Conclusions

This is one of the few studies to assess CRM processes as opposed to the significant number of studies that evaluate CRM technology adoption in small and medium-sized enterprises. CRM process studies tend to focus on the formal procedures and activities associated with obtaining customer information, whereas CRM technology studies tend to focus on the information system used to obtain customer information. Although the study did not find significant results across all three CRM processes, the study suggests that CRM maintenance processes may impact SME firm performance. Future research might examine other processes and factors that may be significant and impact SME performance.

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APPENDIX A: Cover Letter and Survey

UNC CHARLOTTE
Department of Management
9201 University City Boulevard, Charlotte, NC 28223-0001

Consent to Participate in a Research Study

Title of the Project: Small and Medium-Sized Enterprises Customer Relationship Management Impact on Firm Performance
Principal Investigator: Katrice Branner, Doctoral Candidate, UNC Charlotte
Faculty Advisor: Dr. Franz Kellermanns, Faculty Advisor
Study Sponsor: N/A

You are invited to participate in a research study. Participation in this research study is voluntary. The information provided is to give you key information to help you decide whether or not to participate.

- The purpose of this study is to explore the relationship between small and medium-sized enterprises customer relationship management processes and firm performance.
- The survey is anonymous. Survey responses will be analyzed to obtain information about how you interact with your customers. Your survey responses will in no way be traceable back to you.
- If you choose to participate it will require 10 – 15 minutes of your time.
- There are no potential risks or discomforts that will occur as a result of participating in this survey.
- Benefits may include increased awareness about different ways to interact with your customers and their value to firm performance.
- If you choose not to participate, you need only not take the survey.

Your privacy will be protected, and confidentiality will be maintained to the extent possible. Your responses will be treated as confidential and will not be linked to your identity unless you provide your email in the survey for a voluntary follow-up interview. Survey responses and email addresses will be stored separately with access to this information controlled and limited only to people who have approval to have access. We might use the survey data for future research studies, and we might share the non-identifiable survey data with other researchers for future research studies without additional consent from you.

Participation is voluntary. You may choose not to take part in the study. You may start participating and change your mind and stop participation at any time by exiting the survey.

If you have questions concerning the study, contact the principal investigator, Katrice Branner, Doctoral Candidate at (980) 368-2521 or by email at kbranner@uncc.edu or contact the faculty advisor, Franz Kellermanns at (704) 687-1421 or by email at kellermanns@uncc.edu. If you have further questions or concerns about your rights as a participant in this study, contact the Office of Research Compliance at (704) 687-1871 or uncc-irb@uncc.edu.

If you are 18 years of age or older, have read and understand the information provided and freely consent to participate in the study, you may proceed to the online survey.

Small and Medium-Sized Enterprise Firm Performance

##

This survey will be administered online using Qualtrics.

Section 1:

Does your business have a formal way of segmenting customers to prioritize their customer acquisition and retention strategies? ___Yes ___No

How do you view customer relationship management?
_____Technology _____Strategy _____Process

Please indicate number of new products and services introduced over the past three years: _____

With regard to your business, to what extent do you agree with the following
(1 = Strongly Disagree; 7 = Strongly Agree)

CRM Initiation							
	Strongly Disagree						Strongly Agree
We have a formal system for identifying potential customers.	1	2	3	4	5	6	7
We have a formal system for identifying which of the potential customers are more valuable.	1	2	3	4	5	6	7
We use data from external sources for identifying potential high value customers.	1	2	3	4	5	6	7
We have a formal system in place that facilitates the continuous evaluation of prospects.	1	2	3	4	5	6	7
We have a formal system in place to determine the cost of reestablishing a relationship with a lost customer.	1	2	3	4	5	6	7
We have a systematic process for assessing the value of past customers with whom we no longer have a relationship.	1	2	3	4	5	6	7
We have a system for determining the cost of reestablishing a relationship with inactive customers.	1	2	3	4	5	6	7
We made attempts to attract prospects in order to coordinate messages across media channels.	1	2	3	4	5	6	7
We have a formal system in place that differentiates targeting of our communications based on the prospect's value.	1	2	3	4	5	6	7
We systematically present different offers to prospects based on the prospect's economic value.	1	2	3	4	5	6	7
We differentiate our acquisition investment based on customer value.	1	2	3	4	5	6	7
We have a systematic process/approach to reestablish relationships with valuable customers who have been lost to competitors.	1	2	3	4	5	6	7
We have a system in place to be able to interact with lost customers.	1	2	3	4	5	6	7
We have a systematic process for reestablishing a relationship with valued inactive customers.	1	2	3	4	5	6	7
We develop a system for interacting with inactive customers.	1	2	3	4	5	6	7

CRM Maintenance

	Strongly Disagree						Strongly Agree
We have a formal system for determining which of our current customers are of the highest value.	1	2	3	4	5	6	7
We continuously track customer information in order to assess customer value.	1	2	3	4	5	6	7
We actively attempt to determine the costs of retaining customers.	1	2	3	4	5	6	7
We track the status of the relationship during the entire customer life cycle (relationship maturity).	1	2	3	4	5	6	7
We maintain an interactive two-way communication with our customers.	1	2	3	4	5	6	7
We actively stress customer loyalty or retention programs.	1	2	3	4	5	6	7
We integrate customer information across customer contact points (e.g., mail, telephone, Web, fax, face-to-face).	1	2	3	4	5	6	7
We are structured to optimally respond to groups of customers with different values.	1	2	3	4	5	6	7
We systematically attempt to customize products/services based on the value of the customers.	1	2	3	4	5	6	7
We systematically attempt to manage the expectations of high value customers.	1	2	3	4	5	6	7
We attempt to build long-term relationships with our high-value customers.	1	2	3	4	5	6	7
We have formalized procedures for cross-selling to valuable customers.	1	2	3	4	5	6	7
We have formalized procedures for up-selling to valuable customers.	1	2	3	4	5	6	7
We try to systematically extend our "share of customer" with high-value customers.	1	2	3	4	5	6	7
We have systematic approaches to mature relationships with high-value customers in order to be able to cross-sell or up-sell earlier.	1	2	3	4	5	6	7
We provide individualized incentives for valuable customers if they intensify their business with us.	1	2	3	4	5	6	7
We systematically track referrals.	1	2	3	4	5	6	7
We try to actively manage the customer referral process.	1	2	3	4	5	6	7
We provide current customers with incentives for acquiring new potential customers.	1	2	3	4	5	6	7
We offer different incentives for referral generation based on the value of acquired customers.	1	2	3	4	5	6	7

CRM Termination

	Strongly Disagree						Strongly Agree
We have a formal system for identifying nonprofitable or low-value customers.	1	2	3	4	5	6	7
We have a formal policy or procedure for actively discontinuing relationships with low-value or problem customers (e.g., cancelling customer accounts)	1	2	3	4	5	6	7
We try to passively discontinue relationships with low-value or problem customers (e.g., raising basic service fees).	1	2	3	4	5	6	7
We offer disincentives to low-value customers for terminating their relationships (e.g., offering poorer service).	1	2	3	4	5	6	7

CRM Technology

	Strongly Disagree						Strongly Agree
We invest in technology to acquire and manage "real time" customer information and feedback.	1	2	3	4	5	6	7
We have a dedicated CRM technology in place.	1	2	3	4	5	6	7
We have technologies that allow for one-to-one communications with potential customers.	1	2	3	4	5	6	7
Relative to our competitors the quality of our information technology resources is larger.	1	2	3	4	5	6	7

Section 2: In this section we are interested in the level of entrepreneurial orientation of your firm.

In general, my firm favor…

A strong emphasis on the marketing of tried-and-true products or services	1	2	3	4	5	6	7	A strong emphasis on R&D, technological leadership, and innovations

How many new lines of products or services has your firm marketed in the past five years (or since its establishment)?

No new lines of products or services	1	2	3	4	5	6	7	Very many new lines of products or services
Changes in product or service lines have been mostly of a minor nature	1	2	3	4	5	6	7	Changes in product or service lines have usually been quite dramatic

In dealing with its competitors, my firm…

Typically responds to actions that competitors initiate	1	2	3	4	5	6	7	Typically initiates actions to which competitors then respond
Is very seldom the first business to introduce new products/services, administrative techniques, operating technologies, etc.	1	2	3	4	5	6	7	Is very often the first business to introduce new products/services, administrative techniques, operating technologies, etc.
Typically seeks to avoid competitive clashes, preferring a "live-and-let-live" posture	1	2	3	4	5	6	7	Typically adopts a very competitive, "undo-the-competitors" posture

In general, my firm have…

A strong proclivity for low-risk projects (with normal and certain rates of return)	1	2	3	4	5	6	7	A strong proclivity for high-risk projects (with changes of very high returns)

In general, my firm believe that…

Owing to the nature of the environment, it is best to explore it gradually via cautious, incremental behavior	1	2	3	4	5	6	7	Owing to the nature of the environment, bold, wide-ranging acts are necessary to achieve the firm's objectives

When confronted with decision-making situations involving uncertainty, my firm…

Typically adopts a cautious, "wait-and-see" posture in order to minimize the probability of making costly decisions	1	2	3	4	5	6	7	Typically adopts a bold, aggressive posture in order to maximize the probability of exploiting potential opportunities

Section 3: In this section, we are interested in the performance of your company.

What is your ROE (return on equity)?
☐ Less than 5
☐ 5 to 9
☐ 10-14
☐ 15-19
☐ 20+

What is your target annual growth rate as a % of profit?
☐ Less than 5
☐ 5 to 9
☐ 10-14
☐ 15-19
☐ 20+

Please indicate the amount of Annual Sales:			
Less than $500,000			
$500,000 to less than $1 Million		$3 Million to less than 3.5 Million	
$1 Million to less than $1.5 Million		$3.5 Million to less than $4 Million	
$1.5 Million to less than 2 Million		$4 Million to less than $4.5 Million	
$2 Million to less than 2.5 Million		$4.5 Million to less than $5 Million	
$2.5 Million to less than 3 Million		More than $5 Million	
Please indicate growth in employment over the past three years:			
Zero or decreased		Less than 2%	
2 – 3.99%		4 – 5.99%	
6 – 7.99%		8 – 9.99%	
10% or more			

How would you rate your firm's performance as compared to your competitors?

Indicator	Current							Past three years						
	Much Worse			About the Same			Much Better	Much Worse			About the Same			Much Better
Growth in sales	1	2	3	4	5	6	7	1	2	3	4	5	6	7
Growth in market share	1	2	3	4	5	6	7	1	2	3	4	5	6	7
Growth in number of employees	1	2	3	4	5	6	7	1	2	3	4	5	6	7
Growth in profitability	1	2	3	4	5	6	7	1	2	3	4	5	6	7
Acquiring new customers	1	2	3	4	5	6	7	1	2	3	4	5	6	7
Increasing sales to current customers	1	2	3	4	5	6	7	1	2	3	4	5	6	7
Return on equity	1	2	3	4	5	6	7	1	2	3	4	5	6	7
Return on total assets	1	2	3	4	5	6	7	1	2	3	4	5	6	7
Profit margin on sales	1	2	3	4	5	6	7	1	2	3	4	5	6	7

Ability to fund growth from profits	1	2	3	4	5	6	7	1	2	3	4	5	6	7

Section 4: In this last section we are interested in some background information about your firm and the degree of family involvement in the firm.

Please indicate the total number full-time employees in your firm: _____

Full-time Family-member employees:_____ Full-time Non-family member employees:_____

Does your firm have owners who are not family members? ____Yes ____No

Are you a member of the owning family? ___Yes ___No

How old is your firm? _____ years

Your Age: _____ years. Gender: ___ Male ___ Female. Worked in firm since:_____

Your position (title) in the firm: ___Owner ___ Staff ___ Other

How many businesses have you owned, including your current business? Please write in number _____

What is the primary location of your business? (State) _____

Firm Industry
(Based on 2 Digit NAICS Code List - https://classcodes.com/naics-2-digit-sector-codes/)

- ❍ Agriculture, Forestry Fishing and Hunting
- ❍ Mining, Quarrying, and Oil and Gas Extraction
- ❍ Utilities
- ❍ Construction
- ❍ Manufacturing
- ❍ Wholesale Trade
- ❍ Retail Trade
- ❍ Transportation and Warehousing
- ❍ Information
- ❍ Finance and Insurance
- ❍ Real Estate and Rental and Leasing
- ❍ Professional, Scientific, and Technical Services
- ❍ Management of Companies and Enterprises
- ❍ Administrative and Support and Waste Management and Remediation Services
- ❍ Educational Services
- ❍ Health Care and Social Assistance
- ❍ Arts, Entertainment, and Recreation
- ❍ Accommodation and Food Services
- ❍ Other Services (except Public Administration)
- ❍ Public Administration

Please check boxes as they apply (multiple mentions possible). The first generation refers to the founding generation.

	1st	2nd	3rd or more
Which generation(s) currently own(s) the business? (1)	❑	❑	❑
Which generation(s) currently manage(s) the business? (2)	❑	❑	❑
Which generation(s) is/are currently employed in the business? (3)	❑	❑	❑

What generation of your family business are you a member of? The first generation refers to the founding generation.

- ❍ 1st
- ❍ 2nd
- ❍ 3rd or greater

What percentage of shares does your family own in the business (versus non-family)? Please write in percentage amount below._____

What is your marital status?

- Single, never married
- Married/living with a partner
- Divorced, separated, or widowed

Does your spouse or significant other work in the family business?

- Yes
- No

Highest degree you earned?

- Less than a high school
- High school graduate
- Some college
- 2-year degree
- 4-year degree
- Master's/ professional degree
- Doctoral degree

What is your ethnicity?

- White
- Black or African American
- American Indian or Alaska Native
- Asian
- Native Hawaiian or Pacific Islander
- Other

What is your age?

- Under 18
- 18-24
- 25-45
- 35-44
- 44-54
- 55-64
- 65-74
- 75-84
- 85 or older

If you would like to receive a copy of the final report or if you would be available for a short follow-up interview, please type your email address in the field below. _____

APPENDIX B: Chapter 4 Figures

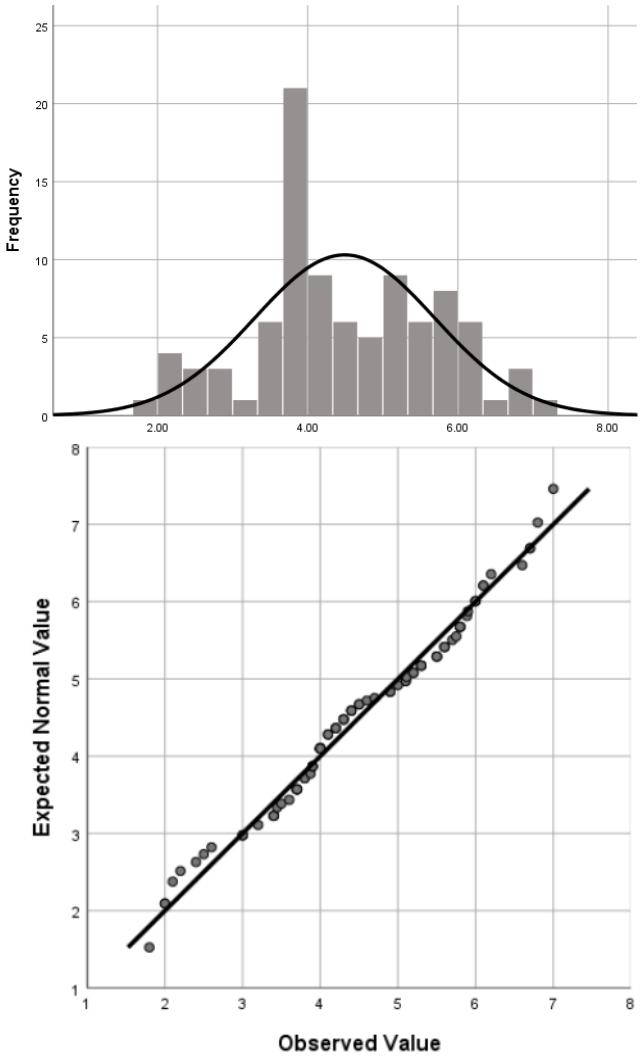

Figure 4.1 Normality Plot: Dependent Variable – Firm Performance

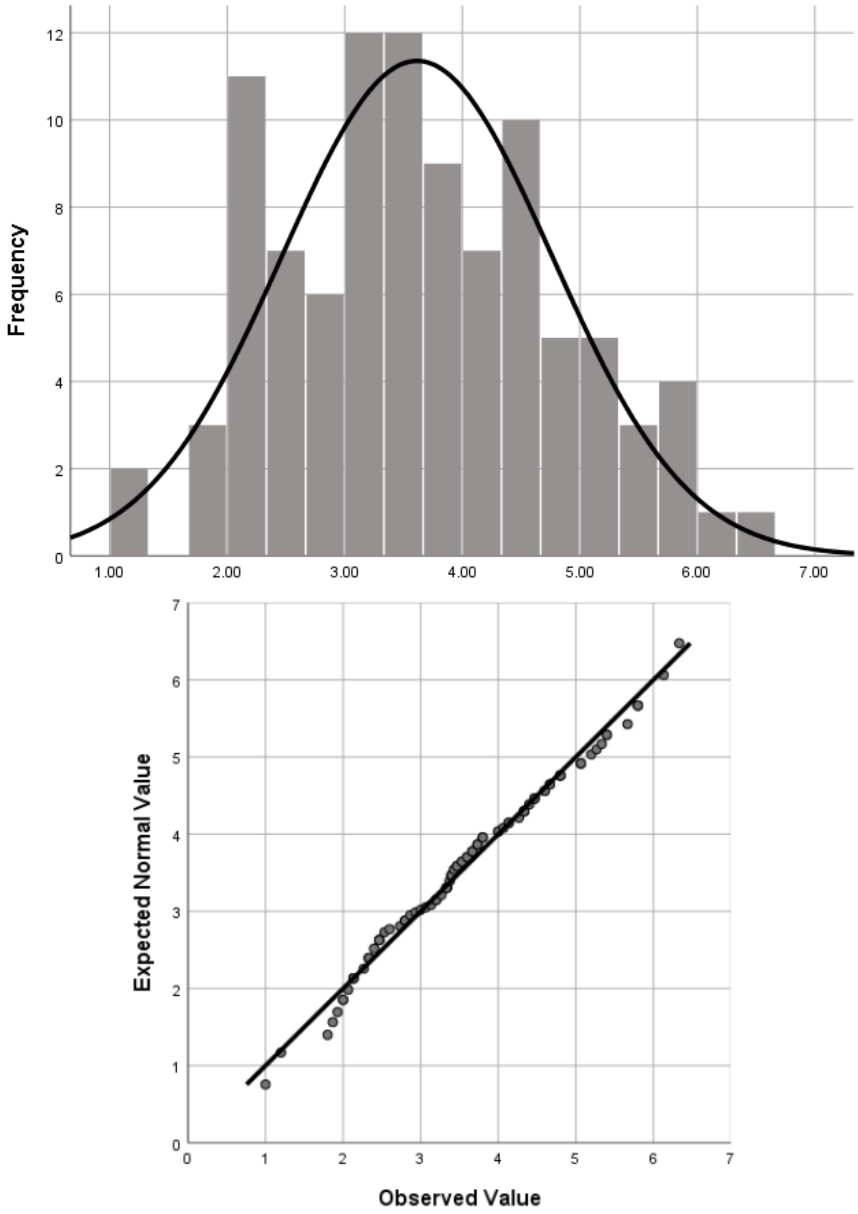

Figure 4.2 Normality Plot: Independent Variable – CRM Initiation

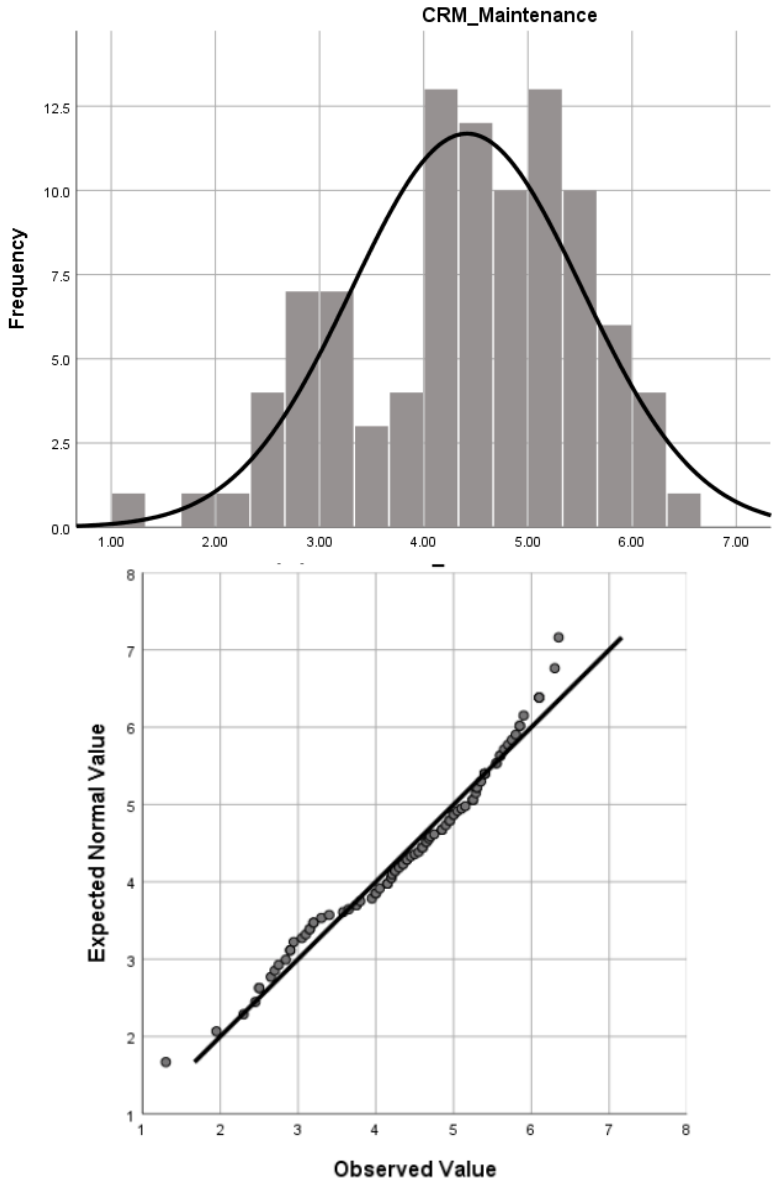

Figure 4.3 Normality Plot: Independent Variable - CRM Maintenance

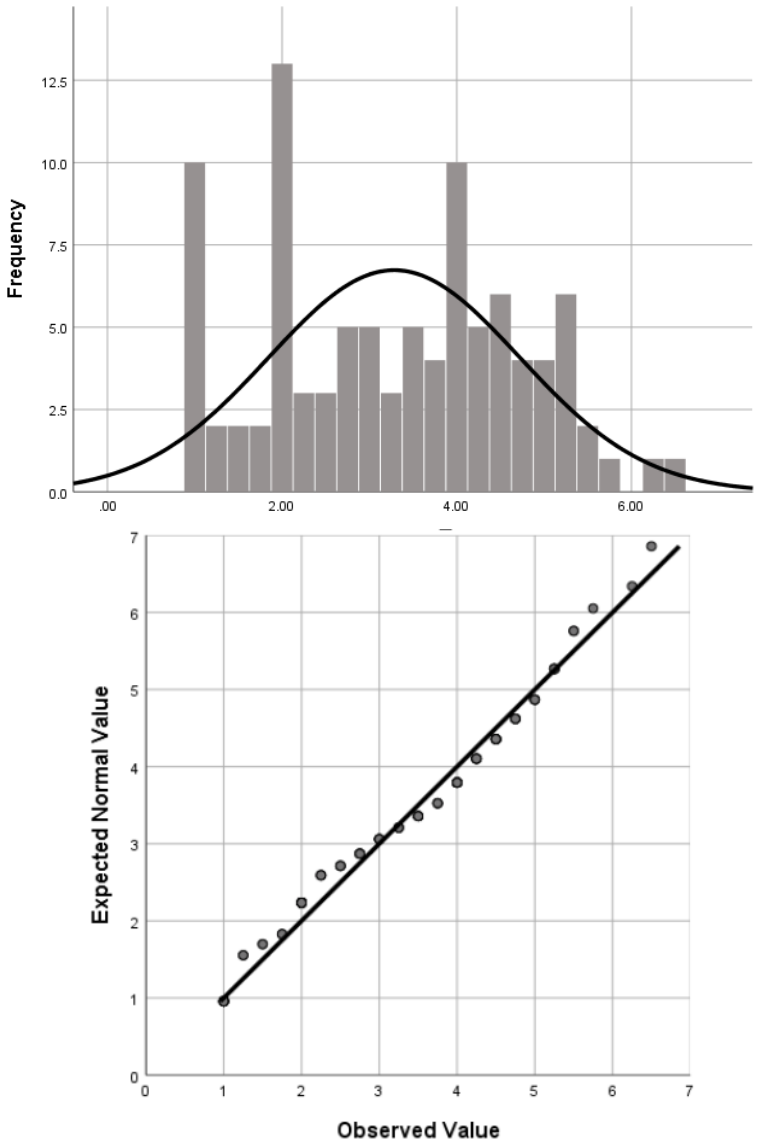

Figure 4.4 Normality Plot: Independent Variable - CRM Termination

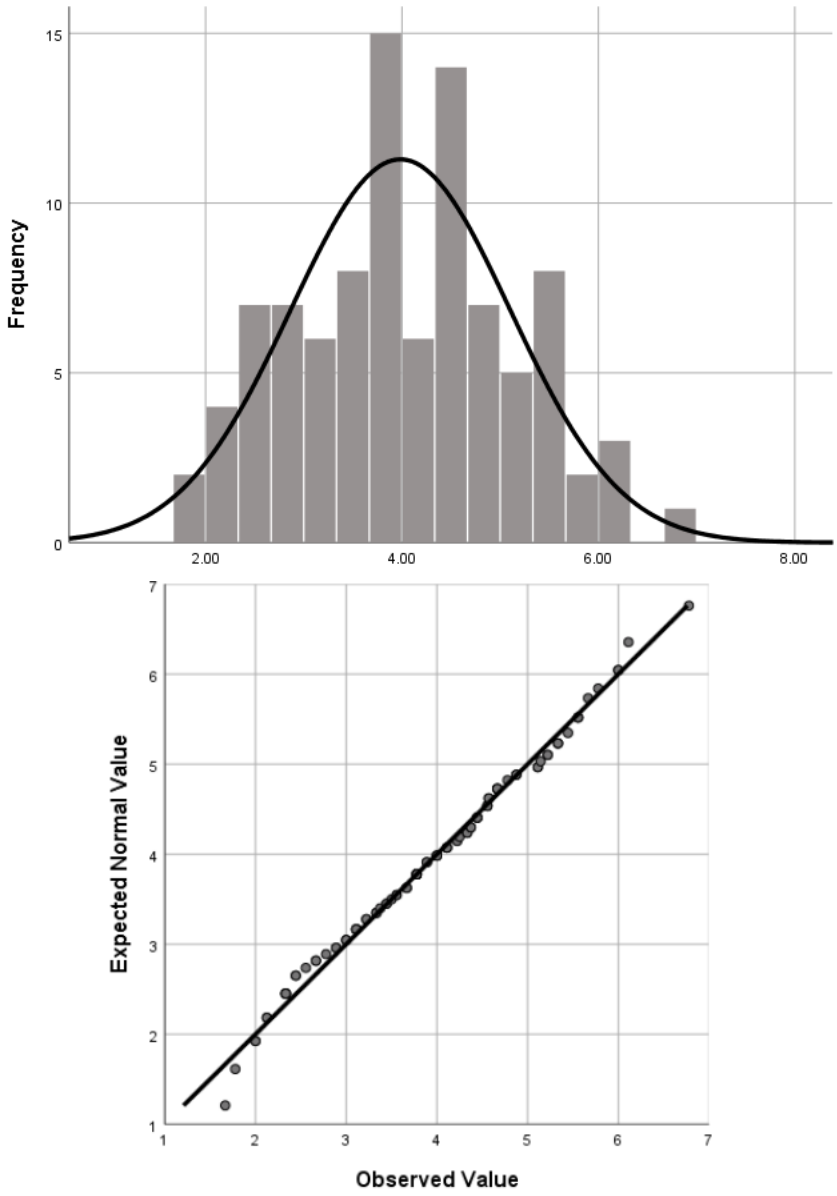

Figure 4.5 Normality Plot: Moderating Variable - Entrepreneurial Orientation

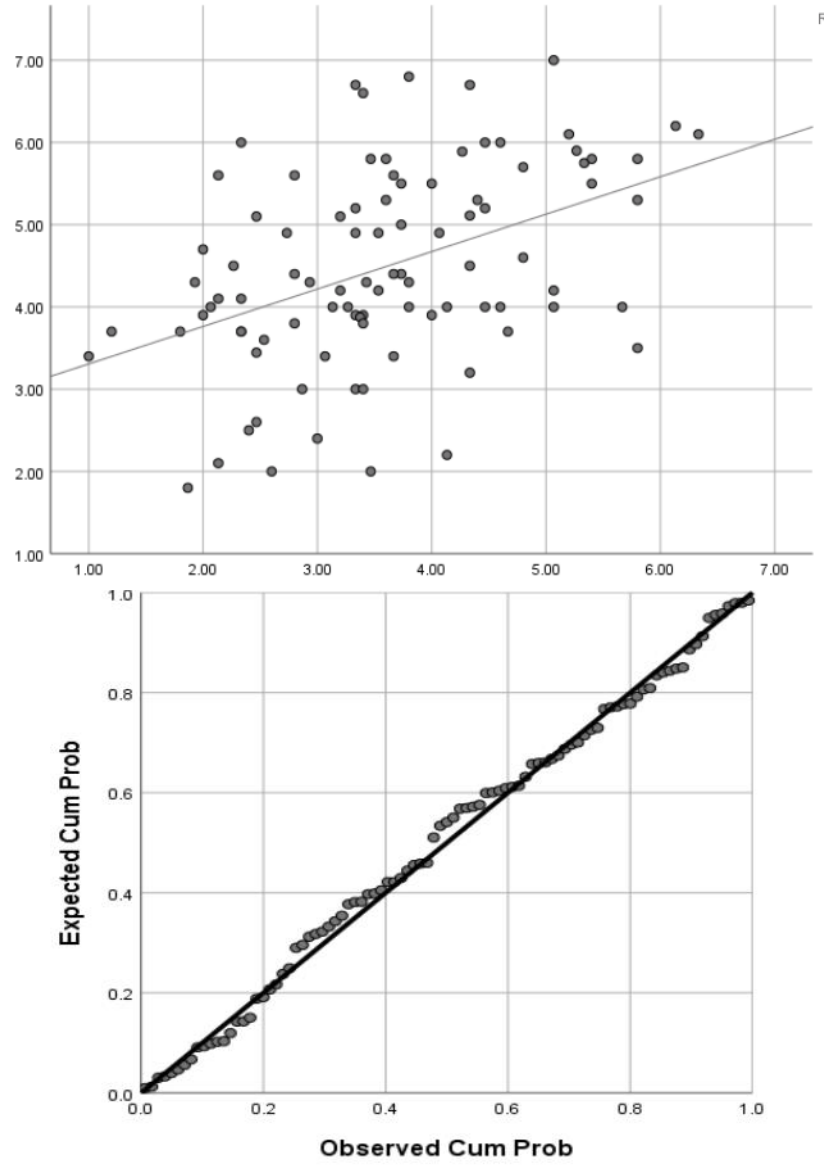

Figure 4.6 Linearity and Homoscedasticity Test: CRM Initiation and Firm Performance

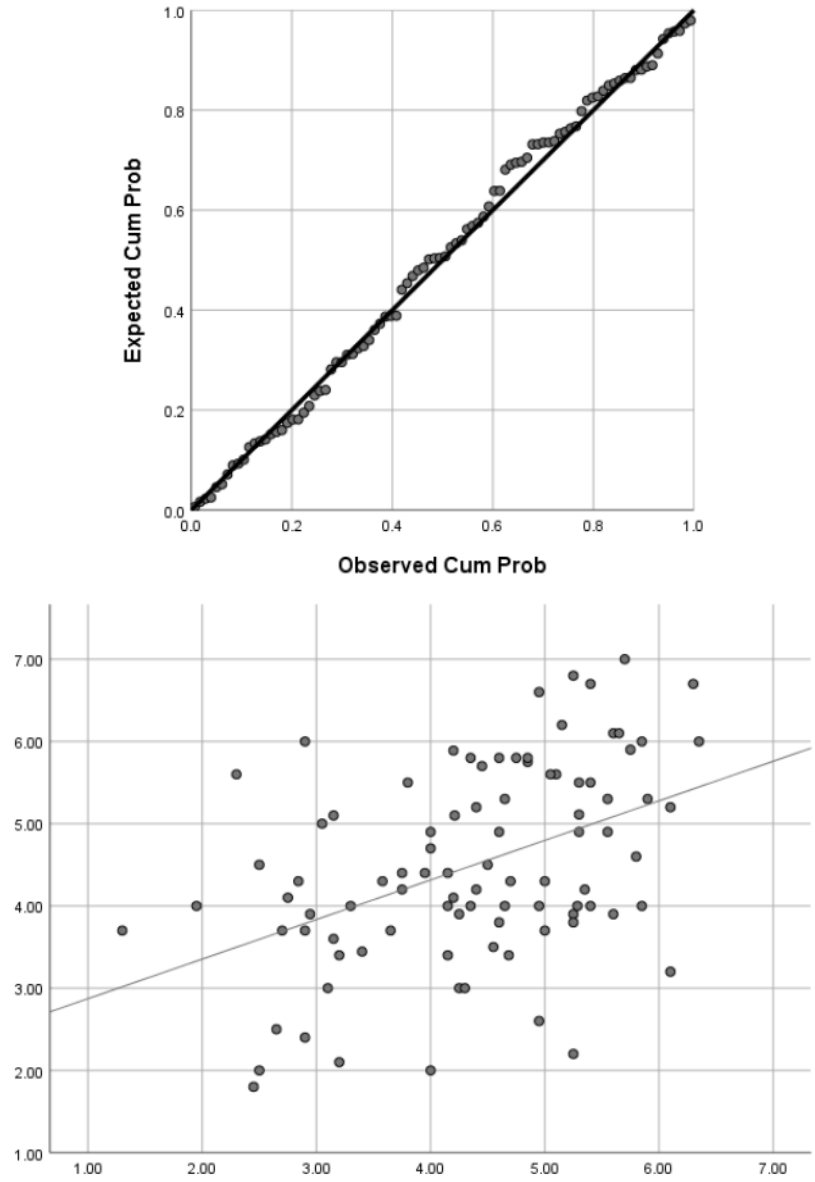

Figure 4.7 Linearity and Homoscedasticity Tests: CRM Maintenance and Firm Performance

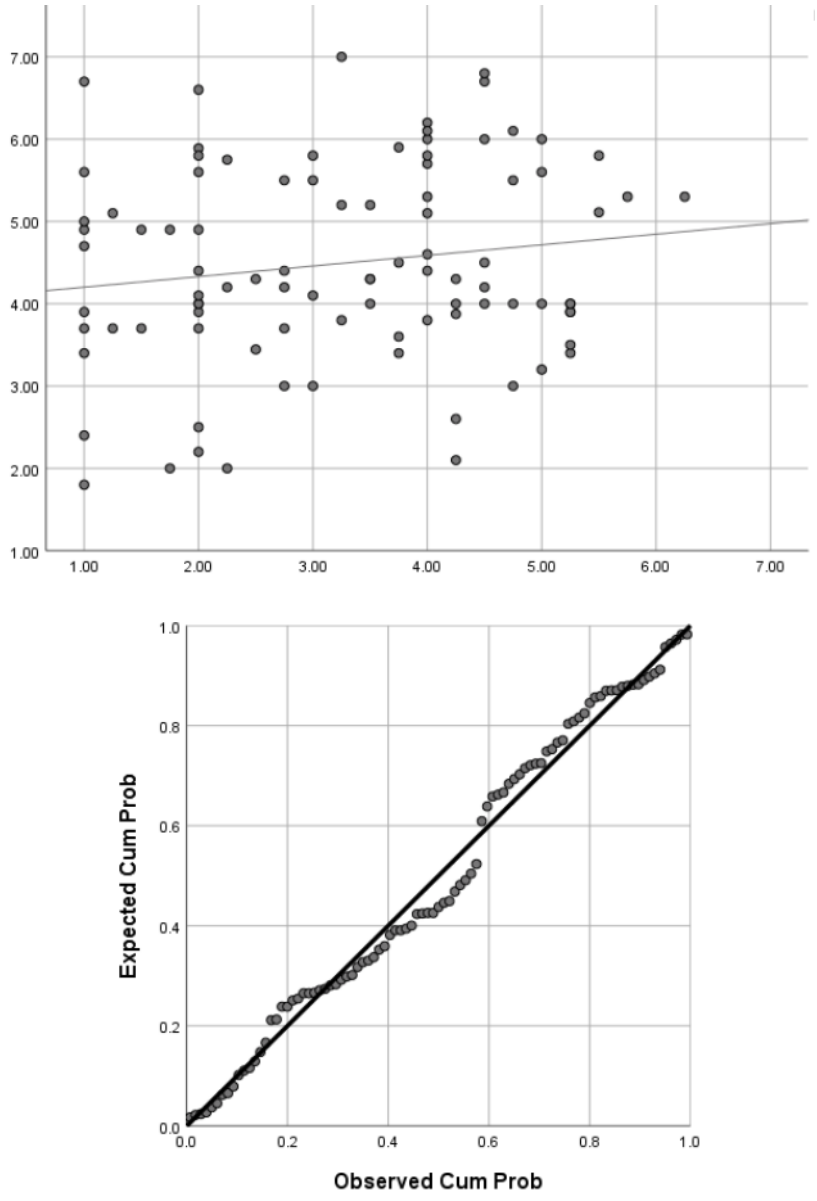

Figure 4.8 Linearity and Homoscedasticity Tests: CRM Termination and Firm Performance

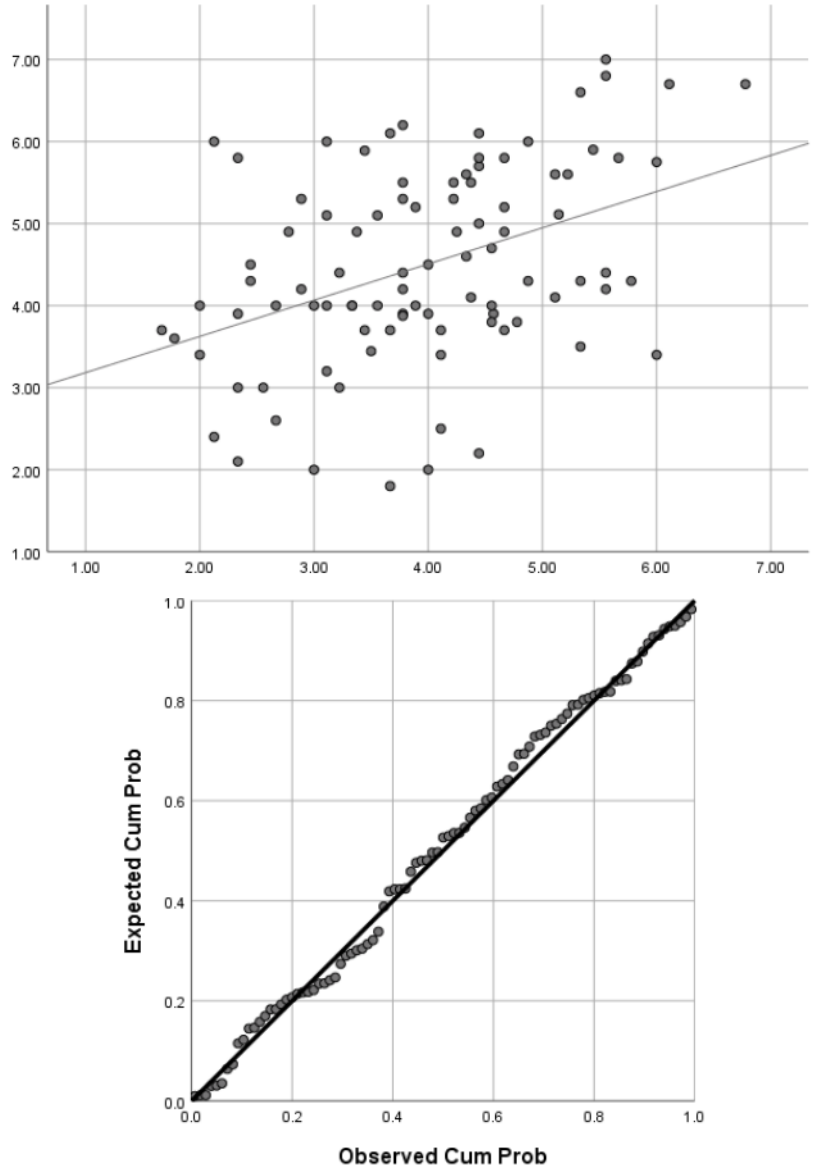

Figure 4.9 Linearity and Homoscedasticity Tests: Entrepreneurial Orientation and Firm Performance