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Business-to-Business Marketing Perceptions: Customer Knowledge Management and Customer Engagement

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This is to certify that the doctoral study by

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Doctoral Study Submitted in Partial Fulfillment

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Abstract

Business-to-business (B2B) marketing involves several components including the marketing management decision-making process and the buying behaviors of the B2B clientele and the end users. Disregarding customer knowledge management (CKM) and inaccurate analysis of data cost companies billions of dollars per year. The objective of this exploratory single-case study was to develop an in-depth analysis of the problem that some marketing managers have limited knowledge of how to use CKM strategies to improve B2B customer engagement. The dynamic capabilities and technological opportunism theories comprised the study's conceptual framework. Data collection consisted of participant observations, member checking, and semistructured interviews with 4 Dallas-based, managers at various levels of responsibility within a single B2B company. The data analysis entailed using an adaptation of Giorgi's systematic text condensation and inductive coding techniques of reoccurring themes. The themes that emerged indicated a need to improve marketing strategies. These themes included developing a division wide marketing plan, devising a CKM tool, and initiating organization wide CKM protocols and training. Beneficiaries of this research are marketing managers, marketing practitioners, organizational strategy and policy makers, and students of business administration. Implications for social change include specifying the strategies that business leaders need to improve sustainability.

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Dedication

I wish to dedicate this work to my husband, Vernon. Without his support, understanding, diligence, and unconditional love, I could not have fulfilled my dreams. I dedicate this work to my parents and first cheerleaders, James and Laura Marzilli. They encouraged me to investigate my passion for learning. Looking down from heaven, they are still guiding me along my academic journey.

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Table of Contents

List of Tables

Section 1: Foundation of the Study

Some components of business-to-business (B2B) marketing include the decision-making process and the buying behaviors of the B2B clientele and the business-to-consumer (B2C) end users (Hutt & Speh, 2013). The voice of the customer (VOC) adds a distinctive element for B2B marketing professionals to contemplate during the information age (Bone, Fombelle, Ray, & Lemon, 2014). Organizations using VOC could inspire economic growth, champion sustainability, and achieve a competitive advantage (Daghfous, Ahmad, & Angell, 2013; Foshay, Taylor, & Mukherjee, 2014).

Ignoring VOC and the inaccurate interpretation of mined data cost companies billions of dollars per year (Mukerjee, 2013). Ahearne, Rapp, Mariadoss, and Ganesan (2012) found a paradigm shift toward a distinctive involvement within the buyer-seller interactions concerning quality relationship marketing. This discovery commanded a necessary change in B2B marketing approaches to customer relationship management (CRM; Choudhury & Harrigan, 2014). The change involved integrating data obtained from both the B2B customers and the B2C end users (Ahearne et al., 2012).

CRM incorporates software applications and multichannel methods available to businesses (Ahearne et al., 2012). CRM tools are distinctive and often described as information enabling technology based on possible listening strategies per company offerings (Dong, 2012; Stein, Smith, & Lancioni, 2013). During the early 2000s, leaders gathered demographic and psychographic data about their customers' buying preferences and habits via CRM technology. Williams, Ashill, and Naumann (2016) noted that CRM ranked 4th in marketing tools; yet 95% of the USA's top 1000 companies use data interchange technology, only 2% of the smaller B2B firms chose to adopt the tools (Asare, Brashear-Alejandro, & Kang, 2016).

My review of the literature uncovered inconsistencies of data reliability using customer knowledge management (CKM) technologies and knowledge management (KM) tactics with the prevalence of organizational psychology theories. Mukerjee (2013) established 60-80% as the standard CKM failure rate for the decade, and Ata and Toker (2012) revealed the need for further research efforts supporting a multifaceted scrutiny of the interaction between global cultures (both national and organizational) and customer involvement. Collaborative CRM and CKM methodologies could create consumer trust and loyalty contributing to a customer value chain (Choudhury & Harrigan, 2014).

Background of the Problem

This section provides a brief and concise overview of the problem under consideration. It also incorporates an understanding of why marketing strategy decision makers and organizational leaders do not consider using CKM tools when devising marketing strategies. A gap exists in the academic literature regarding the significance of CRM and buyer/seller/supplier multichannel interpersonal relationships (Ata & Toker, 2012). Imperfect data attributes, together with potential complications of CKM, contribute to disruptive implementation failures (Braganza, Stebbings, & Ngosi, 2013). Some organizational leaders do not use CKM information in conjunction with relationship marketing initiatives (Garrido-Moreno, Lockett, & Garcia-Morales, 2015), web-based social networks, new product designs, or marketing plans (Foshay et al., 2014). Despite the available CKM resources, as well as the potential benefits these tools may represent, some B2B leaders question the strategic purpose of the technology (Stein et al., 2013).

Listening to customer concerns and engaging in multifaceted collaborations could improve customer engagement. Using CKM would offer an opportunity to create inventive discoveries leading to improved client/supplier coexistence, profitability, and sustainability (Eid & El-Gohary, 2014). Janita and Miranda (2013) recognized that satisfied customers are not necessarily loyal customers. The VOC includes an educated, well-informed B2B buyer who requires integration of products, which is a shift from the single purchase concept toward the adoption of total package, multichannel, offerings including pre- and postpurchase services (Janita & Miranda, 2013). This type of shift to total purchase options can lead to CKM failures because of misinformation and incorrect data warehousing (Chua & Banerjee, 2013).

Problem Statement

Organizational leaders acknowledge billions of dollars in losses because of a 60-80% failure rate in CKM initiatives (Mukerjee, 2013). Although nearly 80% of organizational leaders are aware of CKM initiatives, some marketing leaders might not consider using CKM tools when devising marketing strategies (Ahearne et al., 2012). The general business problem is B2B executives typically do not use CKM. The specific business problem is that some marketing managers have limited knowledge of how to use customer knowledge management strategies to improve B2B customer engagement.

Purpose Statement

The purpose of this qualitative, exploratory single-case study was to explore the problem that some marketing managers have limited knowledge of how to use CKM strategies to improve B2B customer engagement. The targeted population consisted of B2B marketing executives who were members of the American Marketing Association (AMA) LinkedIn group. Cutcliffe and Harder (2012) described a purposeful sample as a group for whom the activity studied is likely to occur. The research effort included a purposeful sample of marketing managers who generated strategic and tactical marketing plans within Dallas, Texas.

Data collection included in-depth, face-to-face interviews with various levels of marketing managers at the same location and time on different days. The population of marketing managers was appropriate for the single-case study because the individuals offered an opportunity to explore the CKM dilemma from a management perspective. The implications for positive social change included insight into consumer behaviors while increasing customer engagement and loyalty by using the VOC to foster a resourceful customer engagement. The CKM information might lead to product innovations to enhance an ecological balance by reducing product and production waste and promoting humane working conditions.

Nature of the Study

Using a qualitative method, I explored the specific business problem of some marketing managers possessing limited knowledge about using CKM strategies to improve B2B customer engagement. Marshall and Rossman (2016) suggested that the research method and design are contingent upon the primary research question. Büchel, Nieminen, Armbruster-Domeyer, and Denison (2013) illustrated that the mixed method research design requires incorporating both qualitative and quantitative approaches concurrently. Büchel et al. stated that the findings of mixed method research would result in a stronger analysis of the research problem than individual applications of either design. Mixed method research might add obscurity to an interpretive concern and not indicative the goals of this research (Denzin, 2012). The goal of the research effort was to explore the connection between marketing managers' perceptions and understanding of CKM strategies. A qualitative method was appropriate to explore the thoughts, feelings, and experiences of participants (Denzin, 2012).

I used the single-case study design to explore CKM strategies for customer engagement. A case study design was a useful tool to capture the daily occurrences of a phenomenon and was the best option to discover the how or the why of a phenomenon. Using a case study design assisted with uncovering insights and explored the phenomenon for a deeper understanding (Marshall & Rossman, 2016). Yin (2014) described explanation, description, illustration, and enlightenment as four applications where case study research is advantageous. Three possible types of case studies used in research are: exploratory, descriptive, and explanatory (Yin, 2014). The exploratory single-case study design was an appropriate fit for this study because it revealed CKM strategic and tactical maneuvers within a B2B organization.

Research Question

The central research question that guided this study was: What CKM strategies do marketing managers use to improve B2B customer engagement?

Interview Questions

Qualitative case study research respects each respondent and their individual experiences, perceptions, opinions, and knowledge of the phenomenon (Stake, 1995). Researchers should treat executive level participants with respect (Marshall & Rossman, 2016). The interview questions (also available in Appendix A) explored the specific business problem that some marketing managers have limited knowledge of how to use CKM strategies to improve B2B customer engagement. The questions were as follows:

1. How would you define customer engagement?
2. How does your involvement apply to customer engagement?
3. What do you believe are barriers to customer engagement.
4. What do you think is needed by marketing managers to engage customers?
5. What strategies do you believe would better improve your organization's approach to customer engagement?
6. How would you define CKM?
7. What methods do you use to manage CKM?
8. How you use CKM to interact with customers?
9. What are your experiences regarding the implementation of CKM strategies?
10. How do you believe CKM strategies have an effect on improving your organization's approach to customer engagement?
11. What strategies do you believe would better improve your organization's approach to CKM?
12. How would you describe your supply chain?

13. What methods do you use to manage your supply chain?

14. How do you use CKM to interact with participants in your supply chain?

15. What strategies do you believe would better improve your organization's approach to CKM regarding your supply chain?

16. What else would you like to share that might contribute to your experiences regarding CKM and customer engagement?

Conceptual Framework

The objective of this study was to explore a specific business problem: some marketing managers have limited knowledge of how to use CKM strategies to improve B2B customer engagement. It is extremely important to have the knowledge of various factors to adapt marketing strategies to marketplace changes (Arnett & Wittmann, 2012). The technological opportunism and dynamic capabilities theories appeared to be the most acknowledged from the B2B empirical studies in the current literature. These theories suggested that customer engagement failures might be the result of simultaneous concerns from the CKM concept. The marketing organization's projected transformation of technology, technological opportunism, and the concept of dynamic capabilities grounded this study.

Technological Opportunism

Organizational competence to appreciate, anticipate, and respond or adapt to technological transformation is technological opportunism according to Sarkees (2011). This concept provided a supporting conceptual framework for this study. Researchers indicated that some firms were defective in methodical procedures for implementing

CKM, thereby making organizations incapable of adapting to marketplace changes (Aboelmaged, 2014; Tarafdar, Bolman Pullins, & Ragu-Nathan, 2014). Baker and Carson (2011) revealed that within a dynamic market, organizations might adapt to readily available technologies to avoid effects of uncertainty within the status quo, risking failure along the way. The technological opportunism concept fit this study because it helped me to understand the logic behind choosing a readily available program rather than customizing a CKM tool to improve customer engagement.

Dynamic Capabilities

The dynamic capabilities framework implies that during times of vigorous market activity, organizations succeed as a result of using accessible resources. The culmination of research by several researchers became the theory of the resource-based view of organizational capabilities (Penrose; Chandler; Nelson & Winter; & Richardson as cited in Davies & Brady, 2016). Expanding the theory of organizational capabilities, Teece, Pisano, and Shuen (1997) studied organizational behaviors and an organization's propensity for a competitive advantage within a fast-paced technological environment by adapting, integrating, and reconfiguring skills and resources into cohesive clusters. Knowledge management combined the resource based view theory, and Porter's competitive forces structure became the theory of dynamic capabilities (Teece et al., 1997). The dynamic capabilities concept fits this study to help explore how marketing managers adapt resources with CKM strategies to encourage customer engagement.

Operational Definition of Terms

Brand extension. A brand extension is an additional product promoted under a recognized brand as an alternative usually intended to attract a larger market share (Brexendorf, Bayus, & Keller, 2015).

Business-to-business (B2B). A B2B is an organization that sells its products or services to: (a) other businesses for resale or manufacture, (b) institutions, or (c) government agencies (Hutt & Speh, 2013).

Business-to-consumer (B2C). A B2C is an organization that sells its services or products to consumers, as end users (Hutt & Speh, 2013).

Business or industrial marketing. Business or industrial marketing is the marketing of goods, raw materials, and services to industrial (B2B) customers (Hutt & Speh, 2013).

Communities of practice. This term indicates the sharing of knowledge via collaboration or professional networks (Gibbert, Leibold, & Probst, 2002).

Customer knowledge management (CKM). CKM is a term adapted from the CRM and KM databases, (see CRM and KM), into CKM. CKM includes the consumer knowledge particulars plus, buyer, as well as business-to-consumer end users. The data include motivations, social networking influences, proficiencies, organizational culture and policies, global competition, suppliers, and business partner information. The addition of employee attitudes of consumption, reflections, and documentation touting the successes and failures of the strategies, technology, and systems incorporates CKM initiatives (Yang, Huang, & Hsu, 2014).

Customer relationship management (CRM). CRM is a marketing strategy mixing data mining, data warehousing (e.g. storing and sorting), and technology with customer service and marketing channels (Hutt & Speh, 2013).

Knowledge management (KM). KM includes the procedures used to categorize and organize personal, unconscious, implicit, tacit, and mined information, as well as distribute it through a network or database system to create an organizational competitive advantage (Joshi, Chawla, & Farooquie, 2014).

Assumptions, Limitations, and Delimitations

Assumptions

An assumption is any accepted idea that a researcher believes to be true (Gordon & Patterson, 2013). I anticipated that the managers in the target population would deem my doctoral study as believable, relevant, and trustworthy. Another assumption was that all participants would answer honestly. Another assumption was that the reasons for failures in CKM strategies might not be apparent, such as the inability to coordinate process functions, the lack of organizational commitment, the unwillingness to share tacit knowledge, or the limited instruction in the understanding potential of the tool itself.

Limitations

The discussion of the limitations is an indication that a researcher understands the research process and a reminder to the audience of the boundaries of the research (Bouzon, Miguel, & Rodriguez, 2014). The qualitative explorative single-case study involved one Dallas-based B2B organization. One limitation of this study was the short time limit of the study. Another limitation was the small number of participants. Because the population was small, it would not be generalizable to other populations.

Another limitation was the subjective focus of the case study design on a single organization could not be used as a general representation of the perceptions of B2B CKM tactics.

Delimitations

Bouzon et al. (2014) noted that a specific business problem sets the boundaries or delimitations for an exploratory single-case study. I restricted this study to one B2B organization located in the geographical area of Dallas, TX. The research effort included in-depth interviews with marketing managers. Another delimitation included a criterion for participation, limited to employees at the marketing manager position or higher, including a trade show coordinator, a manager, a senior manager, and a vice president.

Significance of the Study

This study contributed to the existing literature to assist with improved customer engagement and successful B2B enterprises. This study also has the potential to increase management understanding of and the recognition of VOC to enhance environmental sustainability.

Contribution to Business Practice

The analysis of CKM information might uncover risks and develop strategic and tactical steps to foster economic growth and minimize business waste. The research identified what marketing managers need to know within the ever-changing practices of B2B marketing.

Implications for Social Change

The implications for positive social change include the potential to offer insights into marketing and CKM initiatives. Scholars and the marketing community might also analyze the information to gain more insight into the triple bottom line: people, planet, and profit. CKM data incorporating consumer behaviors and beliefs could lead to product innovations that enhance an ecological balance and promote humane working conditions. Engaging and educating consumers via green marketing initiatives and adhering to customer recommendations and suggestions concerning environmental sustainability might gain momentum involving global enterprises.

A Review of the Professional and Academic Literature

To acquire a better understanding of CKM and to create a conceptual foundation for this study, I performed a literature review. During the examination and evaluation of articles and books written by marketing experts, I assessed the different perspectives surrounding the central research question: What CKM strategies do marketing managers use to improve B2B customer engagement? In this literature review, I synthesized peer-reviewed articles regarding the concepts of technological opportunism, dynamic capabilities, customer retention, and the shift to the 21st century CKM paradigm. This included: the numerous tools of CKM, consumer as buyer and seller, and relationship network components, and CKM in the supply chain involved within B2B marketing.

Analyzing the literature provided insight about how researchers, scholars, and marketing practitioners view CKM and the associated processes. I began the initial search for journal articles, doctoral studies, and books written by marketing experts with the Walden University library databases in the subject of the B2B customer CKM implementation. A primary search from Business Source Complete, ABI/INFORM

Complete, Emerald Management Journals, SAGE Premier, and PsycINFO produced a variety of articles encompassing marketing theories and past and current practices, as well as the associations and crossover of B2B techniques with those of established B2C marketing activities. Supplementary searches using multidisciplinary databases such as Academic Search Complete, ProQuest Central, Science Direct, and Google Scholar added sources for an informative and comprehensive review of current B2B CKM practices.

With the expansive searches in these research databases, I discovered a variety of sources for this B2B exploratory single-case study. Peer-reviewed articles on B2B marketing, social networking, traditional marketing strategies, customer engagement, buying behavior, and organizational psychology came up in my search. My exploration of sources included those with themes, such as consumer engagement, trust, satisfaction, brand loyalty, relationship and knowledge management, and social media marketing.

Organization of the Literature Review

I used the following terms and keywords for my preliminary search: *business-to-business, B2B, B2B competitive advantage, B2B management theories, B2B marketing, B2B value creation, customer engagement, customer knowledge management and CKM, customer relationship management and CRM, relationship marketing, customer retention and loyalty, knowledge management and KM, word of mouth,* and *WOM.* Keywords used to locate articles regarding the importance of the Internet: *e-Commerce, e-Marketplace, social networking, Internet communication technologies, Netnography,* and *Web 2.0.* The peer reviewed articles discovered using the terms: *market orientation,* *marketing strategy, branding, supply chain, value, business intelligence, business excellence, organizational culture, dynamic capabilities,* and *technological opportunism* added depth to my literature review.

I organized the literature review into subsections on related topics. The literature review features important themes related to the research question and the conceptual framework. The specific focus areas included the topic of the history of CKM: from B2C to B2B marketing and the Lean Six Sigma process. The 21st century application of CKM integrated: VOC, WOM, and CKM in the supply chain The section regarding the tools of CKM encompassed data mining, social networks, risk, benefits, and MROI. The organizational psychology covered the conceptual framework: organizational psychology, technological opportunism, and dynamic capabilities.

All articles included are from peer-reviewed journals, and the remaining literature is from scholarly and professional books. The publication dates comply with the 3-5 year requirement for the study. The total of all references used in each category is: (a) 6 books and (b) 121 peer reviewed articles for 127 items (95.28% are peer reviewed). This literature review has 85 sources of which 83 are peer-reviewed journal articles (97.65%) and 75 are from 2012 or later (88.24%). The total peer-reviewed sources from 2012 and later is 109 (85.83%).

History of CKM

The scope of my research included CKM tools within industrial enterprises, also known as the commercial sector. Commercial organizational strategists within the B2B sector appeared reticent to include marketing in business planning. Consequently, B2B managers were slower to adopt marketing (Webster, 1992). The B2B marketplace has a smaller amount of customers and product offerings than B2C organizations and consists of three segments: industrial enterprises, institutions, and government endeavors (Hutt & Speh, 2013). Business buyer/seller relationships are complex and the VOC aids in creating better marketing in the business environment.

During the advent of marketing, profitability was important, and leaders recognized that marketing was both the best and the worst of the management responsibilities (Hadjikhani & LaPlaca, 2013). Marketing is an income producer and a significant expenditure. The buyer/seller transactional marketing paradigm slowly began to incorporate customer satisfaction into marketing strategies around the time when Maslow defined the dynamic, motivating forces of human nature as needs (Webster, 1992). Webster indicated that Maslow's theoretical hierarchy of needs metamorphosed marketing protocols from societal activities into the marketing paradigm introduced in the1950s.

Throughout the 1950s, marketing researchers lacked the means to explore the complexities of multifaceted business strategies (Wilkinson & Young, 2013). Rudimentary efforts by researchers of the 1950s and 1960s uncovered the importance of understanding the intricacies of the relationships and the marketing mix developed within the B2B realm (Wilkinson & Young, 2013). McNamara (1972) posited that marketing should be an organization-wide philosophy to take care of customer requirements. During the 1970s, a misconception regarding B2B marketing came from using empirical evidence from B2C research (Finch, O'Reilly, Hillenbrand, & Abeza, 2015). Gummesson (2014) revealed that the B2C theories used for understanding the B2B paradigm were both impractical and uncorroborated. McNamara (1972) added depth to the history of B2B and B2C marketing by indicating that the misunderstanding of customers' idiosyncrasies inhibited flourishing business ventures.

Marketing is critical for organizational sustainability. McNamara (1972) discovered that chief executive officers (CEOs) abandoned marketing during strategy development and that B2C corporate leaders were more apt to use marketing tools for strategic development than B2B leaders. Marketing strategists developed data mining and simulation software in the 1990s (Bahrami, Ghorbani, & Arabzad, 2012). Management uncertainty remains regarding establishing where, when, and how CKM initiatives could work within marketing tactics (Williams et al., 2016). The software integrated into CKM tools which helped marketing strategists identify relationships (Saarijärvi, Karjaluoto, & Kuusela, 2013). Yet, B2B leaders still neglected to use available marketing tactics for strategic customer engagement and organizational sustainability.

Although marketing was an established organizational concept, mid-level marketers ignored relevant market information because the information was not within their range of knowledge. Webster (1992) illustrated how the marketing paradigm shifted from product offerings with structured sales routines into information driven buyer-seller relationships. The advent of the relationship strategies opened a tactical change from pushing product offerings to listening to the VOC within B2B marketing (Hadjikhani & LaPlaca, 2013). The transformation from transaction-based marketing to customer centric initiatives in the 2000s added further insights to improve B2B relationship efforts (Saarijärvi et al., 2013).

Using Webster's 1992 conclusions regarding Maslow's hierarchy of needs, Hadjikhani and LaPlaca (2013) noted the significance of changing the B2B marketing archetype to relationship marketing could result in an improved competitive advantage. Day, Fawcett, Fawcett, and Magnan (2013) recognized the importance of understanding the requirements of both the B2B clientele and the end users to foster trust and long-term relationships. Day et al. (2013) did not use the CRM or knowledge management terminology in their findings regarding relationships. The work of Day et al. and Bahrami et al. (2012) distinguished collaboration and technology as strategic relationship champions. Day et al. suggested the importance of defining critical success factors, as well as the value chain possibilities for profitability. Bahrami et al. (2012) included the concept of relationships was an important factor in thriving operations. Further exploration of relationships and relationship marketing could contribute to discovering cost reduction business tactics (Ford & Mouzas, 2013).

From B2C to B2B marketing. Researchers have not yet clarified the role of CKM in the evolution from B2C to B2B marketing tactics (Gummesson, 2014). Evidence indicated that 80% of new products are brand extensions, some of which moved from B2C product lines into the industrial realm (Burnaz & Bilgin, 2011). This product development via brand extension implies the interconnectedness between the B2C and B2B marketplace. Bose, Roy, and Tiwari (2016) considered consumer evaluations on branding while distinguishing the differences in customer engagement, perceived value, purchasing procedures, and decision-making between the environments. B2B brands might not create the brand associations popular in B2C markets (Bose, Roy, & Tiwari, 2016). Burnaz and Bilgin (2011) conducted research to determine if B2B brands could flourish in B2C markets and proved that listening to VOC regarding conceptual B2B brand perceptions, perceived brand quality, and product acceptance are important factors for noteworthy brand extensions. Although empirical evidence regarding B2C crossover is scarce, brand awareness is a significant element of the B2B marketing mix (Burnaz & Bilgin, 2011).

As the B2C environment grew with the Internet, consumers began to form brand communities and relationships, sharing knowledge and product value of both B2C and B2B products. Brexendorf et al. (2015) learned that brand community participants are enthusiastic about adopting the brand's new products. Ewing, Wagstaff, and Powell (2013) conducted a 12-month long, Internet-based, exploratory case study regarding C2C branding in Australia. Ewing et al. (2013) learned that the notion of collective conscious added to the importance of B2C brand awareness. While Ewing et al. studied only two brand communities, the research findings indicated that conflict and brand loyalty are valuable instruments for engaging VOC interactions.

21st Century Application of CKM

The development of buyer/seller marketing strategies predicated B2B networks and relationships. When marketing tactics shifted from a product orientation to customer relations, the term *relationship marketing* evolved (Saarijärvi et al., 2013). Wilkinson and Young (2013) discovered that considering the sales events, consumer interactions, and ensuing networks contributed solutions to supporting complex business systems changing the marketing paradigm with economic factors and product innovations.

Although foundational to CRM and B2B, recognized, and in the past used, the term relationship marketing, the term still has no central definition in a marketing context (Ahearne et al., 2012). During their research, Finch, O'Reilly, Hillenbrand, and Abeza (2015) found several concepts (trust, satisfaction, experience, loyalty, service quality, security, privacy, ease of use, customer retention, technology, and brand) reoccurring throughout their analysis. Along with a variety of psychological, social, and economic concepts shaping relationships, each concept may signify various connotations and associations (Huang & Wilkinson, 2013; Peters, Pressey, Vanharanta, & Johnston, 2013). Essential to defining relationships, marketing managers should pay attention to the concepts applicable to relationship marketing to improve customer longevity (Agariya & Singh, 2013; Steel, Dubelaar, & Ewing, 2013) when organizations increased customer retention by 5%, profits increased 25-80% (Agariya & Singh, 2013).

The behavioral sciences might give marketing executives insight into marketing and B2B relationships. Johansson and Kask (2013) established the Darwinian theory of cooperative buyer/seller behavior as a developmental survival tactic within the innovative marketing model. B2B marketing incorporates a variety of philosophies and organizational theories such as business intelligence, economics, sociology, anthropology, and psychology (Huang & Wilkinson, 2013; Peters et al., 2013).

VOC and WOM. WOM is an interactive communication between consumers that might be a pathway for referral business. Eisingerich, Auh, and Merlo (2014) posited that WOM was a neglected aspect of buyer/seller relationships that could foster consumer engagement. When customer service operatives contacted inactive customers and offered options such as websites, blogs, and surveys allowing customer involvement, 33% returned as repeat customers (Eisingerich et al., 2014). WOM engagement might prompt an improved array of product offerings, as well as sales, inspired by VOC suggestions (Yang et al., 2014).

Accepting the VOC and marketing relationships might perhaps be necessary for organizational success within the B2B environment. B2B relationships are complex and the VOC aids in better understanding the B2B marketing environment. Managers' acknowledgment of the VOC evolved from pre-Internet tactics into the digital management of consumer behavior of the 21st century (Webster, 1992). Understanding the relationship philosophy, interactions, and interdependencies within the various associations might contribute to enhance marketing initiatives, which is fundamental to longevity in the B2B realm (Ford & Mouzas, 2013; Green, Whitten, & Inman, 2012; Homburg, Wilczek, & Hahn, 2014). Some organizational leaders presumed that relationship marketing and VOC was not a viable factor in marketing strategies for the industrial marketplace (Gummesson, 2014; Kotler, Calder, Malthouse, & Korsten, 2012).

Some leaders used internal critical quality constraints related to the wants and needs of the customer to further the quest for efficiency and effectiveness, profitability, and growth. Nicoletti (2013) noted that using digitized, VOC information, a form of CKM, and incorporating it into marketing procedures is necessary for thriving B2B relationships. Nicoletti learned that the use of Lean Six Sigma (LSS) methods as a business strategy in marketing added a flexible element to CKM enhancing customer satisfaction. Although using LSS could increase operational excellence, merely adopting LSS into routine operations could result in failure (Nicoletti, 2013).

Lean Six Sigma process. Business excellence tools evolved since the 1920s (Tickle, Mann, & Adebanjo, 2016). A review of the literature revealed that the managerial approach toward marketing changed with the business excellence tools. Leaders adopted the LSS standard of 3.4 defects per million opportunities, a process improvement procedure, to increase stakeholder value, reduce waste, and advance customer satisfaction. This change in operational procedures became evident with the adaptation of LSS principles by organizations such as General Electric (GE), Toyota, and Motorola in the 1980s (Womack, Jones, & Roos, 1991). Webster (1992) discovered that the environment, economics, behavioral science, and quantitative methods leading to LSS contributed to the marketing paradigm. LSS incorporated the marketing archetype as a part of organizational culture, as a strategy, and as a tactic (Webster, 1992). LSS adaptation increased consumer value and helped initiate the transformation from the marketing mix into relationship marketing.

LSS might be a basic form of CKM. Webster (1992), agreeing with Womack et al. (1991), mentioned how leaders began to consider VOC and the success of LSS directives as a strategic management option. Antony (2013) invited academics, and professionals experienced in the field of quality and operations management to discuss their attitudes and views concerning current systems for attaining and maintaining organizational strategic, excellence. Antony recognized that the purpose of LSS is to produce elements that are important for quality and value to the customer. Antony noted that organizational leaders should pay attention to operational excellence as an underlying incentive in decision-making. Incorporating CKM into practice would keep the customer satisfied and would contribute to sustainability (Albliwi, Antony, & Lim, 2015; Tickle et al., 2016).

Found and Harrison (2012) concurred with the findings of Womack et al. (1991) regarding the multifaceted effects of a customer-centric LSS approach. LSS methods included as a business tactic in marketing added an element to CKM, improving customer satisfaction (Nicoletti, 2013). Nicoletti noted that using advanced, digitized VOC a form of CKM information and incorporating it into procedures is necessary for thriving B2B relationships. LSS could increase operational excellence, but adopting LSS into routine operations could result in failure (Albliwi et al., 2015; Nicoletti, 2013). Found and Harrison demonstrated that incorporating LSS into daily communications would support strategic endeavors and could improve the holistic LSS customer-centric ideal aiming at customer satisfaction and information clarity.

LSS adaptation increased consumer value and helped initiate the transformation from the marketing mix into relationship marketing (Webster, 1992). Found and Harrison (2012) explored existing literature regarding lean customer values, then, using a case study approach, tested their findings in a global steel engineering firm. Adding LSS concepts to VOC changed local manufacturing and the expectations of the global market, sending marketing initiatives into strategic planning platforms (Found &

Harrison, 2012). There are numerous quality tools available, Tickle et al. (2016) discovered no agreement regarding best methods for business excellence. Applying the LSS, total quality management (TQM), and VOC best practices to strategies and logistics could improve the supply chain tactics (Albliwi et al., 2015).

Organizational leaders should not confine LSS and TQM to the manufacturing industry (Tickle et al., 2016; Womack et al., 1991). The elimination of non-value added waste would help to keep the current customer base while introducing additional clientele to product offerings (Albliwi et al., 2015). The LSS enhancement might change the product offering from CKM as well as operational strategies (Tickle et al., 2016). The use of LSS translates into the potential for enhanced CKM initiatives across B2B marketing paradigms. Simply stated, LSS changed the operational momentum of organizations.

CKM in the supply chain. CKM is an important component of supply chain logistics (Ford & Mouzas, 2013). The concerns of the buyers and sellers should transcend B2B procurement boundaries toward sustainability, customer satisfaction, and customer retention. Hutt and Speh (2013) contended that successful marketing strategy should integrate one-on-one relationship marketing procedures and the multifaceted supply chain correlations. Strong relationships are important and may vary in value from a variety of content within different contexts (Sedighi, Mokfi, & Golrizgashti, 2012). Song, Su, Liu, and Wang (2012) discovered that managers should endeavor to maintain long-term relationships on all sides of the supply chain. Buyers may be indecisive with ample supply choices, and relationships may provide an opportunity to maintain consumer loyalty and engagement (Piercy & Ellinger, 2014; Steel et al., 2013).

Nicoletti (2013) discussed LSS digital purchasing procedures and stated that the buyer/seller information is necessary to improve product quality and customer satisfaction, as well as support collaborative buyer and seller relationships. Stakeholder updates and management reviews are central to successful B2B operations (Green et al., 2012). Nicoletti reiterated that CKM was an important element to keep the customer requirements at the forefront while removing waste and adding simplicity to the purchasing process.

To investigate supply chain relationships, Sanzo and Vazquez (2011) interviewed chief executive officers of global, B2B organizations regarding the relationship marketing strategies prepared for their customers and their suppliers. In a dynamic B2B environment, customer loyalty because of CKM implementation is feasible but may not offer a specific foundation for every customer strategy (Sanzo & Vazquez, 2011). Brindley and Oxborrow (2014) noted that using CRM programs promoted better communication between organizations and their suppliers. CKM and integration within the supply chain would encourage organizational learning, improve customer satisfaction, and build trust leading to customer loyalty (Green et al., 2012; Hardwick, Anderson, & Cruickshank, 2013). Management's understanding of the interactions and the interdependencies within the various customer-supplier associations would contribute to enhanced marketing initiatives, which is important for endurance in the B2B realm (Antony, 2013; Homburg et al., 2014).

An organizational alignment might also facilitate predictions of future consumer trends by assimilating CRM with KM expertise to develop accessible CKM procedures (Konstan & Riedl, 2012). Customer satisfaction and engagement is a function of consumer recognition in relation to supply chain management (Degbey, 2015). Agarwal and Subramani (2013) noted the importance of sharing end users' information. Collaboration between supply partners, customers, and end users could add value and lead to a preferred vendor standing within the supply chain (Agarwal & Subramani, 2013; Konstan & Riedl, 2012). Brindley and Oxborrow (2014) offered recommendations concerning the organizational alignment of objectives and suggested using customer information to follow transactions within the supply chain to foster customer longevity.

Sharing CKM and business intelligence data with all supply chain partners might lead to closer customer relationships (Brindley & Oxborrow, 2014; Fidel, Schlesinger, & Cervera, 2015). Found and Harrison (2012) discovered that managing the VOC, customer needs, and consumer intentions are valuable to successful B2B operations. Garrido-Moreno et al. (2015) revealed that although a considerable relationship between CKM use and profitability existed, there was still an implication of management uncertainty regarding CKM efficiency.

A case study would offer a holistic interpretation of the supply chain components and opportunities. Agarwal and Subramani (2013) conducted exploratory case study research and discovered that while knowledge and information sharing reduced risk, the organizational structure of supply chain partners was an important factor to consider for CKM implementation. Knowledge sharing between trading partners generated a high level of confidence and trust, and reduced risk, which lead to longevity and value within supply chain relationships (Asare et al., 2016). The researchers, although via different methods, implicated the importance of CKM to the various partners in the supply chain under a variety of circumstances and organizational structures.

Adding to the narrow compilation of global B2B literature, Andersson and Servais (2010) considered CKM from an international perspective. The recommendation to maintain five product-related facets: importance, complexity, familiarity, innovativeness, and frequency, proved fundamental to a straightforward portfolio approach to purchasing within the B2B environment (Andersson & Servais, 2010). This global approach fits with the findings of Johnson (2013), who indicated that as buyers support supplier needs, the partnership creates a value exchange via information technology (IT) pathways.

To address the needs of B2B customers, marketing managers should understand the purchasing behaviors of buyers. Keshvari, Faghani, Memarinia, and Miremadi (2012) used mixed methods research to discern the importance of CRM application by an Iranian heavy vehicle automotive manufacturer. Keshvari et al. (2012) discovered that economic and social issues might influence buyer preferences. A marketing communications breakdown might become a problem concerning customer retention, and recognition of CKM might improve customer satisfaction ratings (Asare, et al., 2016). One weakness of the study was that Keshvari et al. overlooked some of the regional idiosyncrasies of respondents. That oversight might be a reflection of the misunderstanding of the pragmatic cultural practices necessary for successful B2B operations.

B2B marketing managers might use a multi-channels (of distribution) approach to accommodate customer needs and address cultural differences. Asare et al. (2016) added the insight of multicultural strategies to the global B2B literature whereas Andersson and Servais (2010) considered international marketing tactics within the supply chain and recommended a model that reflected both the buyer and seller perspectives. As buyers support supplier needs, the resulting value exchange creates a contribution, which augments global supply chain partnerships and consumer retention (Johnson, 2013). The B2B marketing strategies should address the needs of the buyers and the sellers, as well as any cultural differences that may impede the B2B marketing function.

Tools of CKM

B2B customers may be unique; they are consumers nonetheless (Hutt & Speh, 2013). The B2B customer is clientele incorporating product end users including businesses for resale or manufacture, institutions or education, and government procurement (Hutt & Speh, 2013). The availability of new knowledge gathering tools made a difference in the dynamic landscape of the marketing arena (Fidel et al., 2015). Although B2B relationships are as ancient as the first purchase, Ballantyne and Williams (2008) noted how various leaders began to analyze B2B consumer relationships in the early 1980s. Ballantyne and Williams scrutinized how relationship knowledge changed the worldview of marketers toward a borderless community and began a rush of marketing executives to use CRM tools in the 1990s. The availability of CRM tools did not deter the use of the interaction and communications approach to industrial marketing and purchasing from the 1970s and 1980s (Ballantyne & Williams, 2008). The principles of KM leadership offered new approaches in the global marketplace, from which CKM materialized (Yang et al., 2014). The approach slowly turned into a form of network marketing (Ballantyne & Williams, 2008) when organizations attempted to control the network, instead established global partnerships (Steel et al., 2013).

Bone et al. (2014) agreed with Webster's (1992) findings; the lack of CKM relationship information might lead to poor decision-making and the alienation of B2B customers by marketing managers. The results of Bone et al.'s study opened a portal for research regarding B2B peer-to-peer web-based relationships concerning CKM, problem solving, and customer service. Bone et al. also posited that B2B relationships might create value and assist with marketing efforts as a total organizational concept.

When marketing managers shifted their focus toward the customer relationships, CKM added to growth possibilities (Ahearne et al., 2012). Amplifying this discovery, Ahearne et al. (2012) explored CKM tools and enhanced the B2B marketing model to include consumer knowledge. The data included the attitudes realized from social networking as well as the explicit and tacit knowledge retrieved from B2C sources (Lin, Che, & Ting, 2012). The findings aided to create CKM tools that include salespeople, client relationships, as well as the market environment for a holistic approach.

When buyer/seller networks appeared, not all focused on customer knowledge. Ballantyne and Williams (2008) mentioned that when management neglected to use a holistic approach to B2B marketing strategies, the omission weakened buyer/seller networks and relationships. Gibbert, Leibold, and Probst (2002) discovered that employees' rejection of sharing their personal consumer insights from both a contemplative and technological stance immobilized the assimilation of customer knowledge into a CKM platform.

The CKM rejection was perhaps because of modest CKM literature available in the past for management scrutiny. Gibbert et al. (2002) integrated the KM notion of communities of practice and designed organizational communities of creation to add value to reinforce CKM initiatives. Gibbert et al. observed the use of KM within CRM constraints and recommended that organizations collect the knowledge acquired from the consumer, as well as about the consumer. The modification suggested by Gibbert et al. gave credence to changes in CKM knowledge exchange ten years later.

Insightful leaders developed business marketing intelligence (BMI) via Intranet and Internet data mining technologies to excavate and share information. The notion of BMI transformed into a CKM context (Hutt & Speh, 2013). Alvi, Afzal, Shah, Atzori, and Mahmood (2015) mentioned how the Internet was a significant, decision-making communications channel. Using this channel could affect business purchasers and their processes, including economic, rationality, cognitive issues, and attitudes toward the brand (Lin et al., 2012). Alvi et al. (2015) identified new CKM trends, and BMI approaches in B2B marketing.

The shift to CKM and customer understanding by marketing managers strengthened the relationships between the end users (consumers) while making an organizational competitive advantage a possibility (Eid & El-Gohary, 2014). The knowledge from, to, and about the customer became a useful tool for predictive buying possibilities and pattern detection (Yang et al., 2014). The inception of CKM and knowledge creation helped integrate organizational core competencies and shift the marketing focus from product development to customer awareness (Yang et al., 2014). Chua and Banerjee (2013) revealed that the knowledge discovered from, to, and about consumer preferences and past transactions could give insight into future purchases and changing trends. This information regarding trends, obtained via social media procedures, could encourage user dialog, assist with new product development, and improve customer retention. Chua and Banerjee discussed the importance of understanding consumer exchange of ideas as well as the objections that may arise regarding CKM and organizational offerings. CKM data helped improve Starbucks' customer relationships and customer engagement (Chua & Banerjee, 2013).

In a vigorous environment with increased competition, understanding client buying habits is an important aspect of developing a competitive advantage. Customer understanding is an essential part of the B2B relationships (Johnson, 2013). Many leaders of the B2B supply chains acknowledge the value of CKM measures, numerous businesses struggle to influence their partners to adopt the technologies (Asare et al., 2016). Wilkinson and Young (2013) discussed the need for advanced training regarding the use of complicated software and data analysis might contribute ineffective CKM attempts. Sharing information is conducive to good marketing strategies.

Other grounds might exist for limiting the sharing of CKM facts. Wilkinson and Young (2013) noted that environmental complexity might affect organizational leadership. Marketing researchers might be unwilling to take advantage of available IT simulation models (Wilkinson & Young, 2013). Marketing failures and strategic incompetence might become overwhelming in a dynamic market, adding a myopic approach to future ventures, taking steps backward in marketing efforts.

CKM tools may not be the most proficient within a dynamic environment. During a competitive and vigorous environment, merging information from several sources could lead to an overburdened management team regarding CKM adaptation for a competitive advantage (Braganza et al, 2013). Individuals react to ambiguity by joining established factions within the organization, replicating risk aversion behaviors (Baker & Carson, 2011). Baker and Carson (2011) acknowledged that organizations might adapt to new technologies within a dynamic market to avoid the effects of uncertainty within customary events. The ineffective use of technology might lead to management suspicious of using CKM as an approach toward a competitive advantage.

Braganza et al. (2013) learned that leaders developed CKM tools to capture customer information during stable conditions. Adapting CKM systems to reflect relationships between elements regarding customer preferences might improve customer retention (Braganza et al., 2013). Ahearne et al. (2012) disagreed with Braganza et al. (2013) and noted that under exceptional situations sharing customer information might not succeed. Looking at consumer and stakeholders groups would offer beneficial insights into consumer preferences (Braganza et al., 2013) and improve CKM tools (Lin et al., 2012).

Along with technology, CKM tools, and innovation came controversy. Ballantyne and Williams (2008) noted the necessity of discovering, recognizing, and controlling the various relationships within network situations indicative of B2B purchasing and procurement stratagem. Castronovo and Huang (2012) acknowledged CKM technology as instrumental in revitalizing interactions using social media and viral networking within the global realm. Management should adjust the marketing strategy according to the knowledge discovered from the unpredictable consumer (Arnett & Wittmann, 2012; Stein et al., 2013). While exploring long-term B2B relationships and knowledge sharing, Braganza et al. (2013) discovered that over time, the benefits of CKM could encompass negative consequences. Braganza et al., along with Castronovo and Huang, outlined the significance of carefully managing the quantity and category of these data, documenting the context of data exchanges, and paying attention to the competitive environment.

Data mining. CKM data mining facilitates the acquisition, storage, and analysis of customer behaviors, competitor offerings, as well as organizational responses. When implemented fully, CKM could be a profitable decision-making instrument, building trust within buyer/seller relationships (Hardwick et al., 2013). Data mining technology offers an array of independent information-gathering tools (Dong, 2012). Stein, Smith, and Lancioni (2013) determined that data mining is an adaptable CKM tool applicable to a variety of settings. Ahearne et al. (2012) investigated the connection between customer satisfaction, supplier capability, and length of customer relationships. Ahearne et al. concluded that organizations using CKM initiatives via a variety of channels were able to distinguish consumer needs and better serve their B2B customers. Data mining, the statistical predecessor to CKM, is a useful tool in marketing operations, and within the

B2B supply chain.

The Internet could become an important platform for B2B information gathering, building trust within each of the potential marketing channels. Sedighi et al. (2012) noted that a potential problem is not within the method in use, but how managers used the information. Data mining technology and software is a means of concealed information extraction or knowledge discovery in statistics, looking for patterns, clustering, or categorization (Dong, 2012; Stein et al., 2013). Konstan and Riedl (2012) illustrated the record gathering process as a way to distinguish and sort through hypothetical knowledge. Portions of the information noted include loyalty, brand preferences, predicting future purchases, and customer lifetime value (Sedighi et al., 2012). Organizational culture, understanding and learning abilities played a significant role in recognizing and efficiently using the various attributes of CKM generated via data mining technologies for customer engagement and long term relationships (Berghman, Matthyssens, & Vandenbempt, 2012).

Longevity within the B2B market may also include value-based B2B marketing and distribution strategies with CKM adaptations used as a valuable tool for supply chain implementation. Organizational sustainability depends upon understanding B2B customers, their customers' businesses, and the demands of the end users to identify needs and add value to the product lines (Garrido-Moreno et al., 2015). Piercy and Ellinger (2014) discovered that marketing and sales staff evolved with the supply chain partners over time. Concentration on inter-departmental knowledge sharing and CKM business intelligence logistics would add customer value and help to realize organizational customer performance objectives (Garrido-Moreno et al., 2015). One method to reveal components of the ever-changing B2B market environment and B2B organizational sustainability is via CKM tools, networking, and business intelligence strategies.

Social networks. Social networking channels changed the way organizations communicate (Simula, Töllinen, & Karjaluoto, 2013). Researchers sought information regarding the value of social media for CKM in a B2B context (Sood & Pattinson, 2012; Trainor, Andzulis, Rapp, & Agnihotri, 2014). Within social networks, customer patterns and traits could become an aid to B2B decision making for buyers as well as marketers (Choudhury & Harrigan, 2014; Simula et al., 2013). B2B social networks are useful to determine future patterns, and influences from connectivity, as well as fostering relationships (Büchel et al., 2013; Sood & Pattinson, 2012). The mobile applications of network sites, including Facebook, YouTube, LinkedIn, Instagram, Twitter and, Vine might offer valuable interfaces for CKM tools, providing customers options for engagement and innovation (Choudhury & Harrigan, 2014).

Social networking designed for WOM information gathering and website communication platforms encouraging customer feedback, eWOM, might be powerful influencers in purchasing decision-making behaviors. Encouraging WOM communications inspires customer engagement as well as brand loyalty (Arnett & Wittmann, 2012; Saarijärvi et al., 2013). Meuter, McCabe, and Curran (2013) noted that personal familiarity of the customer resulted in a higher acceptance of the product or service discussed. Meuter et al. (2013) also noted that when an online anonymous customer mentioned a product or service, eWOM, the connection was not as convincing. WOM connections might have a narrow reach while eWOM connections might result in a variety of potential customers (Meuter et al., 2013). Yet, marketing strategists might not incorporate WOM and eWOM data into CKM information (Eisingerich et al., 2014).

CKM and social media applications could result in sustainable relationships. Trainor et al. (2014) studied the relationship between social networking and customer centric strategies and recognized the importance of both within a CKM context. Within B2B organizations, social networking technologies integrated with customer centric plans would result in long lasting customer relationships and engagement (Büchel et al., 2013; Trainor et al., 2014); conversely, Johansson and Kask (2013) hypothesized that social networks influence perceptions and might work better in a B2C context. The suggestion proposed by Trainor et al. agreeing with Sood and Pattinson (2012), was the integration of social networking and CKM technologies to substantiate B2B relationship strategies.

Managers should also use consumer information cautiously and bring ethical considerations into marketing strategies. Baker and Carson (2011) gave careful deliberation to ethical considerations of data mining with the possibility of including consumer supervision of the CKM data. Baker and Carson mentioned that employees of a given organization appointed to use CKM technologies to mine potential customer knowledge via their Facebook page might consciously or unconsciously withdraw from a sense of an immoral violation of client privacy. Arnett and Wittmann (2012) noted that managers might not understand the value of using social networking for CKM. This lack of understanding social networks may also be indicative of stability and risk aversion cultures (Tsai & Bagozzi, 2014). Conversely, Lin et al. (2012) discovered that enhanced distribution of CKM might minimize risk and misconceptions regarding customer preferences and demands. Berghman et al. (2012) uncovered that consumers might be hesitant to provide information to suppliers; yet, consumers might divulge information over time while concurrently building stable relationship.

Risk, Benefits, and MROI

A challenge facing marketing managers is that marketing is a major expense with few proven methods to track revenues instantaneously. Nicoletti (2013) noted that the best way to keep marketing momentum was to show results. The lack of instruments for measuring marketing return on investment (MROI) created distrust and loss of credibility for the marketing department and tactics to improve customer engagement (Kumar et al., 2013). Even with major data streams, research by Kumar et al. (2013) proved that 73% of chief executive officers queried noted distrust in the marketing department's ability to generate profitable campaigns. Further research by Kumar et al. noted that over 90% of corporate marketers and chief marketing officers (CMOs) thought that organizations should change to data driven (CKM) initiatives. Further research by Kumar et al. found 39 % of marketing managers reported that they were unable to use the CKM data properly while another 29% had little or no date to measure.

Using MROI might not be an indicator of successful marketing programs. Kumar et al. (2013) agreed with Nicoletti (2013), expressing that the sharing and use of data could make an appreciable difference in successful MROI endeavors. Katsikeas, Morgan, Leonidou, and Hult (2016) discovered the opposite. MROI might be a valuable aid to improvement future marketing plans yet is not indicative of imminent implementation and profits (Katsikeas et al., 2016). Katsikeas et al. uncovered opposing themes regarding the relationship of marketing matrices to uncovering MROI while holding management accountable for marketing investments and performance techniques. Sharing CKM data could be influential in customer engagement to measure customer value as another form of MROI (Katsikeas et al., 2016).

Kumar et al. (2013) mentioned incorporating neurophysiological data to measure MROI. A value stream aligning with mobile social media added a new dimension into the marketing mix, aiding relationship marketing (Larivière et al., 2013). Consumers have many options to discover information about products incorporating product reviews, end user insights, as well as competitor websites (Larivière et al., 2013). Larivière et al. posited that organizations using the data derived from mobile social media and social psychology will give consumers a different opportunity for value and enhanced engagement. This information could assist B2B marketing managers to formulate better MROI matrices, as well as brand equity.

Brettel, Strese, and Flatten (2012) investigated an unusual MROI model, the relationship between organizational life cycle and relationship specific investments (RSIs) to determine operational performance in entrepreneurial undertakings. In early lifecycle stages of an entrepreneurial enterprise, strategically fostering relationship marketing efforts, or RSIs, with principal customers would provide beneficial returns (Brettel et al., 2012). RSIs would indicate stabilized and formalized procedures were showing trustworthiness and commitment to the customer (Brettel et al., 2012). Viewing and adjusting RSIs according to consumer changes would increase the prospect for CKM data platforms, increase customer engagement, and cut costs (Brettel et al., 2012).

The knowledge of CKM facts might hinder the executive management use of CKM as a strategic application within marketing strategies. When used as a technical tool, CKM success rates proved to be lower than expected (Ahearne et al., 2012). Managers' trust in the quality of the information from the customer and the methods used for the data collection process might create an adverse image for stakeholders (Joshi et al., 2014). Managers' skepticism and the communication, decision-making, and leadership strategies contribute to either the improved use or the avoidance of CKM programs (Joshi et al., 2014). By not using CKM, managers might be avoiding a risk of the unknown and staying instead within their comfort zone.

Organizational Psychology Conceptual Framework

This portion of the literature review will offer possible, alternative suppositions, identifying the themes and concepts that ground my study regarding the marketing managers' CKM agendas. Themes from organizational psychology such as *technological opportunism and dynamic capabilities* appear to be the most acknowledged from the B2B empirical studies. The possibility exists that CKM failure might be the result of concurrent consequences involving these and several theories.

Organizational psychology. Many reasons exist why organizations acquire CKM tools with an equal number of factors regarding why the technology is either improperly used or not in use (Thalmann & Brettel, 2012). The use of technological gatekeepers could improve KM strategies (Hohenthal, Johanson, & Johanson, 2014) to remove an obstacle from the CKM agenda (Voola, Casimir, Carlson, & Agnihotri, 2012). The questionable realization of information technologies and KM tactics may lead researchers to delve into organizational psychology and the role of management in CKM strategic initiatives (Hohenthal et al., 2014; Voola et al., 2012). Significant factors leading to failure might include nuances of the organizational culture or what Thalmann and Brettel (2012) labeled *interaction orientation* such as bureaucracy or decision-making procedures.

Organizational psychology, culture, structure, and management objectives create the background for knowledge adoption and customer engagement (Hohenthal et al., 2014). Customers' attitudes, intentions, motivations, and experience with the technology might lead to technophobia, where the complexity and scope of the technology might become overwhelming to management and organizational culture (Aboelmaged, 2014; Tarafdar et al., 2014). Davies and Brady (2016) discovered that individuals react to ambiguity by joining established factions within the organization, replicating risk aversion behaviors. Organizations might change to new technologies within a dynamic market to avoid the effects of uncertainty within a stagnant environment (Asare et al., 2016).

Technological opportunism. Technological opportunism strategies might be a function of entrepreneurial character and CKM acceptance within the marketplace. Chen and Lien (2013) discovered that some strategists might use technological opportunism to overcome apprehensions regarding expected outcomes from the use of the contemporary tools. Touting the accolades of tacit knowledge documentation and the entrepreneurial character of the marketplace, the technological opportunism concept is not enough to engage and retain customers (Lucia-Palacios, Bordonaba-Juste, Polo-Redondo, & Grünhagen, 2014). Marketing strategists should pay attention to the possibility of technological opportunism as a function of an organization's ability to anticipate and respond to changing technologies (Lucia-Palacios et al., 2014). The use of contemporary CKM tools might lead to improved B2B customer engagement and retention (Chen & Lien, 2013).

The adoption of the latest technologies might offer an enhanced innovative factor in adapting to the VOC (Lucia-Palacios et al., 2014). An organization's competitive advantage might depend upon the capacity to anticipate customers' ever-changing desires, and the ability to anticipate emerging technologies (Lin et al., 2012). Organizational leaders should consider demographics and economic trends for success within a dynamic economy and advised not to adopt available off-the-shelf CKM programs (Ahearne et al., 2012). The risk of changing to available technologies is that leaders might realize mixed results.

Individuals react to ambiguity by joining conventional factions within the organization, replicating risk aversion behaviors (Baker & Carson, 2011). Baker and Carson also established that organizational leaders might adapt to new technologies within a dynamic market to avoid the effects of uncertainty within the status quo. Technological skill sets, executive buy-in, and managerial learning abilities to define and adjust to the CKM context, may also be a concealed problem (Vize, Coughlan, Kennedy, & Ellis-Chadwick, 2013). The ineffective use of technology might lead to management suspicious of using CKM as an approach to customer engagement and retention.

Non-technological factors might affect the adoption of CKM technologies (Vize et al., 2013). The anxiety from customers, opponent offerings, or strong-arm management tactics might interfere with the organizational synthesis of CKM knowledge (Chen & Lien, 2013). These factors might prohibit the creation of new knowledge causing intellectual capital erosion. Ahearne et al. (2012) suggested a top-down acceptance of emerging CKM technologies while fostering a bottom-up approach. IT adoption because of the organizational belief from the effectiveness or supposed ease of use is another potential technological opportunism gamble for CKM implementation (Vize et al., 2013).

Dynamic capabilities. In a dynamic environment, organizations function through the exploitation of accessible resources (Lin, Su, & Higgins, 2016). Dynamic capabilities resources include the integration, adaptation, and expansion of tacit capabilities with daily routines within an organization (Teece et al., 1997). Chen and Lien (2013) endorsed prior research findings (Found & Harrison, 2012) regarding the changing environmental influences on sustainability. Agreeing with Teece et al. (1997), Lin, Su, and Higgins (2016) posited that the organizational capabilities of KM and CRM were instrumental in generating new resources for customer engagement and adding value to offerings. Lin et al. recognized that the integration of organizational knowledge, abilities, and resources generated the value leading to best practices. The exploitation of resources would foster the employees' ability to learn new knowledge, as well as offer innovative prospects, to create organizational competence (Lin et al, 2016).

Management capabilities might involve explicit routines incorporating technology and insightful decision-making. Davies and Brady (2016) integrated sensing abilities with manager predispositions and experience to add the psychological notion of intuition into the dynamic capabilities paradigm. Technology, CKM, and expert decision making systems could slow innovation (Davies & Brady, 2016). Managers' awareness and strategies to integrate CKM technology might assist in competitive advantage initiatives (Eid& El-Gohary, 2014).

Transition

Section 1 was an introduction to the purpose of this qualitative, exploratory single-case study, to explore the possible factors that might lead to the mishandling of CKM tools within the B2B marketing realm. Organizations' marketing strategists may use the findings of this study to enhance customer engagement within the B2B environment. While the academic literature is limited in this venue, the literature review focused on the history of B2B marketing indicative of uncertainty regarding the usefulness of CKM marketing practices by management influencers. Because in this study, I included the daily occurrences of marketing decision makers within the B2B realm, an exploratory single-case study was appropriate for this research (Yin, 2014).

An overview of the qualitative exploratory single-case study is in Section 2. The information includes addressing central parts of the research, such as the (a) purpose statement, (b) role of the researcher, (c) participants, (d) data collection, and (e) ethics of this research study. In Section 2 of the proposal, I suggest a deeper understanding about collecting and analyzing the responses. I indicated the assignment of meanings to the lived experiences of participants, and described the reliability, and rigor of this qualitative single-case study. Using extra information in this section concerning data collection, organization, and analysis, I provided a basis to establish the validity, reliability, and rigor of this case study.

In Section 3 of the study, I summarize the prior information of preceding sections. This section involves issues including (a) an overview of the study, (b) the findings of the research study, (c) how this study may contribute to positive social change, and (d) recommendations for future actions. I incorporate a reflection about the research process, a summary, and recommendation.

Section 2: The Project

In Section 2, I will explain the role of the researcher as a collection instrument and the experiences of marketing managers regarding the use of CKM strategies. Ignoring VOC and the inaccurate interpretation of mined data costs companies billions of dollars per year (Alshawi et al., 2011). The specific business problem under investigation in this exploratory single-case study was that some marketing managers have limited knowledge of how to use CKM strategies to improve B2B customer engagement. Efficient use of CKM can be a significant tool inspiring organizational growth, profitability, and a competitive advantage by listening to customer needs (Daghfous et al., 2013). Marketing managers who overlook current CKM initiatives, or through the erroneous interpretation of CKM information, incur billions of dollars of costs per year (Alshawi et al., 2011). How marketing managers execute CKM policies and knowledge sharing may influence organizational success and customer loyalty (Yang et al., 2014).

Purpose Statement

The purpose of this qualitative, exploratory single-case study was to explore the problem that some marketing managers have limited knowledge of how to use CKM strategies to improve B2B customer engagement. The targeted population consisted of B2B marketing executives who were members of the American Marketing Association (AMA) LinkedIn group. Cutcliffe and Harder (2012) described a purposeful sample as a group for whom the activity studied is likely to occur. The research effort included a purposeful sample of marketing managers who generated strategic and tactical marketing plans within Dallas, Texas.

Data collection included in-depth face-to-face interviews with marketing managers at the same location and time on different days. The population of marketing managers was appropriate for the single-case study because interviewing these individuals offered an opportunity to explore the CKM dilemma from a management perspective. The implications for positive social change might include insight into consumer behaviors while increasing customer engagement and loyalty by using the VOC to foster a more resourceful customer engagement. The CKM information might also lead to product innovations to enhance an ecological balance by reducing product and production waste. It may also promote humane working conditions by adding value to products, employee collaboration, and pride in the workplace (Soltani & Navimipour, 2016; To, 2016).

Role of the Researcher

The role of the researcher in a study such as this is to act as an instrument, as an unprejudiced data collector, without proclivity to the answers (Marshall & Rossman, 2016; Pezalla, Pettigrew, & Miller-Day, 2012). Yin (2014) recognized the challenging role of the researcher as that of a study designer, a data collector, a qualitative data analyst, and a presenter of information. As a marketing consultant versed in various interview techniques, the concepts concerning the interview process recommended by Rubin and Rubin (1995) assisted me with seamless modifications during the dialog when necessary. Keeping the interviews graceful and unbiased involved intense listening and respect for and interest in what the respondents had to say. Marshall and

Rossman (2016) posited that researchers should avoid exposing participants to undue harm, whether physical or psychological, and, in accordance with the Belmont Report (Department of Health, 2014) adhere to the tenets of beneficence, respect, and justice.

My good standing of the Dallas, Texas chapter of the AMA, and my participation with the AMA LinkedIn group added credibility to the study. The participants believed that I adequately interpreted their CKM experiences, provided a better understanding of those experiences, and added a rational interpretation of their involvements. Because of my involvement in marketing, the participants were comfortable relating their perceptions and thoughts during in-depth interviews. The interview process is an important technique to gather data (Rubin & Rubin, 1995). Because the researcher is a research instrument in semistructured interviews, using an interview protocol (see Appendix B) helped to standardize the interview process and reduced interviewer bias (Pezalla et al., 2012; Rowley, 2012).

Participants

The eligibility criterion for the target population of this qualitative, exploratory single-case study was that participants consisted of marketing strategy makers of the Dallas-based B2B members of the AMA LinkedIn Group. To begin the search for participants from the target population, the research efforts included a request to the administrators of the Dallas chapter of the AMA LinkedIn group for permission to invite volunteers via the LinkedIn group discussion board (see Appendix C). The request included the purpose of the study and assurance of ethical proceedings to the LinkedIn Group proprietors, as well as the potential participants. After I received approval from the group administrator, I used the AMA LinkedIn discussion board to invite marketing managers to participate in the study. The discussion board post contained a notice indicating the parameters of the research and that the participants' identity and organizational affiliation would be confidential and remain unidentifiable (see Appendix D, Organizational Invitation). I emailed an invitation to participate. I received a response from a marketing manager with contact information (see Appendix E, Marketing Manager Response) and a signed Letter of Cooperation (see Appendix F). To enhance participation and reduce complications, I conducted the interviews at the Dallas area headquarters.

The average sample population for a case study design consists of one to four participants (Yin, 2014). A small number of respondents might require more in-depth questioning to give these data the richness necessary to accomplish validity (Yin, 2014). Using purposeful sampling assured the requisite knowledge of the phenomenon (Yin, 2014). The sample population for the single-case study consisted of four marketing managers with intimate comprehension of marketing strategies, familiarity with organizational CKM, and the autonomy to make decisions. Although the sample was small, triangulation including member checking, trade show observations, and data collection methods assessed from the organization's website offered a representative glimpse into the phenomenon studied.

Research Method and Design

I used a qualitative, exploratory single-case study research design with a purposeful sampling of participants in this case study. A qualitative case study is a valuable design to explore a phenomenon within a real-life environment (Yin, 2014). Stake (1995) stated that the case study design would facilitate a subjective exploration of the feelings and perceptions the participants. A case study design provides a look into a real-life context (Tsang, 2014). I used a purposeful sample and methodological triangulation, including participant interviews, member checking, and participant observations at the Interservice/Industry Training, Simulation and Education Conference (I/ITSEC; see Appendix H, I/ITSEC Registration Confirmation) with live, virtual simulations and training demonstrations.

Research Method

I considered qualitative, quantitative, and mixed methodologies for this case study. Jackson and Wood (2013) suggested that consumer behaviors could translate into B2B patterns by exploring the final purchasing choices of the B2C clientele. Conversely, defenders of quantitative research rigorously question purchasing behaviors within a marketing context (Denzin, 2012) leaving qualitative methods to translate consumer lived experiences into understandable comparisons (Tsang, 2014). Mahoney and Vanderpoel (2015) noted that researchers could neither quantify nor give credence to the meanings that they, the participants, might assign to the thoughts and feelings of a phenomenon in question. Because the objective was to explore lived experiences of participants, which would be difficult to quantify into precise, statistical generalizations using hypothesis testing, set parameters, and statistical analysis (Jackson & Wood, 2013; Mahoney & Vanderpoel, 2015), I selected a qualitative method for this case study.

Research Design

I designed the study to adhere to the qualitative method. The most favored qualitative designs for marketing research are grounded theory, phenomenological (including both the hermeneutic [deciphering meanings] and the existential [gaining an understanding of experiences]) and case study (Möller & Parvinen, 2015). Of the cultural qualitative designs, action observation, focus groups, and interpretive and descriptive interviews are useful tools for B2B marketing (Möller & Parvinen, 2015). Tsang (2014) stated that the flexibility within the B2B case study design enhanced the paradigm for industrial marketing research.

I considered a variety of qualitative designs for this study, including grounded theory, case study, and phenomenology, (from both a hermeneutic and an existential approach). Grounded theory focuses on uncovering theories within the data (Marshall & Rossman, 2016), which was not the primary goal of this study. The primary purpose of phenomenology is to study the human experience from the view of those living the phenomenon (Denzin, 2012; Walker, 2012) which was not the intent of this study. Neither hermeneutic phenomenology nor existential phenomenology were applicable to this project.

A qualitative case study is a valuable design to explore a phenomenon within a real-life environment (Denzin, 2012). The case study approach, considered similar to the tactics of ethnography, might be simple or very complicated depending on its focus on one or many individuals, organizations, industries, or events (Marshall & Rossman, 2016). Stake (1995) stated that the case study design would facilitate a subjective exploration of the feelings and perceptions the participants. The flexibility with B2B case study design became a guide for industrial marketing research for a look into a real-life context (Tsang, 2014). Because of the intricacy of the industrial environment, Möller and Parvinen (2015) also recommended using the case study design for B2B research.

Because I explored the perceptions and experiences of marketing managers and the CKM strategies needed to implement and improve B2B customer engagement, an exploratory case study was the best choice of designs for the case study research. The notion of saturation originated with the grounded theory design and altered when supporting other qualitative research designs (O'Reilly & Parker, 2012; Walker, 2012). For saturation or completeness in the case study (Houghton, Casey, Shaw, & Murphy, 2013), I used a purposeful sample of four expert participants (Möller & Parvinen, 2015). I added triangulation including member checking, and I/ITSEC participant observations (Hoejmose, Roehrich, & Grosvold, 2014) to explore a real-life marketing perspective of B2B CKM.

Population and Sampling

Target Population

The population for this exploratory single-case study was a management team, the members of which were in charge of marketing strategy of a Dallas division of an industrial (B2B) training and simulation organization. I requested volunteers and I found participants who fit the eligibility criteria. Those participating in the LinkedIn Internet group were comfortable with the virtual environment and viewed social media as a viable method for customer information and research (Tsai & Bagozzi, 2014).

Sample Population

Trotter (2012) stated that engaging an adequate number of sample respondents from the target population could be difficult. Asking for referrals or recommendations, or a modified snowball request, might become a necessary alternative to accommodate the sample population (Marshall & Rossman, 2016). My request for participants resulted in an adequate number of responses and the modified snowball request was not necessary.

Trotter (2012) described a purposeful sample as participants with significant traits and information deemed necessary foran investigation of the phenomenon. Purposeful sampling gives the researcher the freedom to deliberately question participants who have the most knowledge of the phenomenon under examination (Möller & Parvinen, 2015). Yin (2014) recommended using triangulation, including in-depth interviews and other methods to convey a convergence of evidence necessary for a single exploratory case study design with a small sample population. For saturation or completeness, I used a purposeful sample of four management level experts (Möller & Parvinen, 2015) and methodological triangulation including participant interviews, member checking, and participant observations (de Oliveira & Pereira, 2014; Hoejmose et al., 2014). The small number of participants for this exploratory single-case study gave a deeper understanding of the experience of the phenomenon under exploration (Walker, 2012). The use of purposeful sampling was appropriate for case study research, which justified the small sample size for this study (Möller & Parvinen, 2015; O'Reilly

& Parker, 2012).

The eligibility criteria for marketing management teams to participate in the study included:

• Participants' main location of corporate responsibility was within the area surrounding Dallas, Texas, United States.

• Participants were at the marketing management level.

• Participants were responsible for devising organizational marketing strategies and tactics.

• Participants were familiar with the CKM strategies.

• Participants' organization had CKM technologies and tools available for the marketing, sales, product development, and supply chain personnel.

• Participants' organization had CKM tools accessible on its website.

Ethical Research

I executed the case study research in accordance with Walden University's Institutional Review Board (IRB) protocols. Data collection took place after IRB approved the research proposal by issuing approval number 11-19-15-0040773. I clarified the measures for ethical protection and confidentiality of the participants and the organization chosen for the study as well as data security. I did not specify an incentive for involvement to the participants. Gordon and Patterson (2013) noted that ethical concerns are a significant portion of qualitative research. I took caution to maintain ethical research standards and conducted the interviews giving reverence to the participants, showing that the research was feasible and the research completed using ethical procedures.

Before the interviews, I offered specific, transparent attention to explanations regarding the nature of the research, the potential effect on the participants and the organization, plus the implications for social change and the undertones that may interfere with the exploration of the phenomenon. Participants signed and returned a consent form (see Appendix F). Before the interviews, I assigned a pseudonym to each participant and an alpha moniker for the organization. Participation in the study was voluntary and participants were free to withdraw at any time simply by contacting me through the information provided on the consent form.

The treatment of participants in this research was respectful and dignified throughout the research process. Beyond recalling their lived experiences, the involvement in this case study did not pose a risk to the safety or well-being of participants. Considering the status of the marketing managers, the participants may face decision-making challenges daily. No participants become distressed, and each was comfortable during the interview process. My role included providing a list of local anxiety therapists, but was not necessary. My responsibility was to report an unanticipated event, according to Walden University IRB protocols. Upon completion of the research and the report of the findings, the final manuscript included the Walden IRB approval number 11-19-15-0040773. I stored the information and all data collected in a secured facility at my home, according to APA guidelines. After 5 years, I will destroy all journal notes, information, and MP3 digital recording micro discs, and other stored digital data.

Data Collection

Information gathering encompassed an assortment of techniques that include familiarization with similar cases, observations, and interviews as well as a researcher commitment to making the conclusions drawn from collection choices (Stake, 1995). Marshall and Rossman (2016) postulated that researchers explain their relationship with the subject matter to clarify a potential for researcher bias. The research effort included an explanation of my marketing history, the interview protocol (see Appendix B) to ensure consistency, a time management plan, and a schedule that was relevant and significant to the audience. The facts collection tools included face-to-face interviews, member checking (analysis and synthesis of transcriptions), and participant observations as described in this section.

Instruments

I was the primary instrument for data collection (Yin, 2014). Following the ideas of Stake (1995) and Yin (2014), the various methods of data collection for my study consisted of interviewing, digital recording, including research notes, member checking and participant observations obtained during the interviews and I/ITSEC. The research effort included in-depth, face-to-face interviews within the same environment at the same time of day. Via interview, member checking, and observation, my goal was to amass precise language, data, meanings, and descriptions of the lived experiences of Dallas (area) based, B2B marketing managers in charge of strategy regarding CKM tools and techniques.

To ensure the validity of the exploratory single-case study, I observed qualitative protocols for trustworthiness, kept the instrumentation simple, used synthesis, and used proper terminology for descriptions. Developing Malterud's (2012) systematic text condensation (STC), the research effort explored emerging patterns, used the words of the participants to convey their experiences, and articulated the thematic format pertinent to their experiences of CKM techniques. To ensure reliability and validity, the research effort included triangulation, with in-depth interviews, enhanced by member checking, and trade show observation (Ramazani & Jergeas, 2015). Allowing the participants to review their transcripts and member checking analysis added depth to the exploration (Ramazani & Jergeas, 2015). The research effort included STC techniques and the use of standard qualitative data analysis software, NVivo 11, to identify themes and patterns within the interview information and I documented resulting patterns and themes in a table format (see Appendix I). To obtain consistency in the study, each participant answered the same questions. Developing my instrument and using open-ended interview questions (see Appendix A) gave the participants the freedom to answer the fundamental research question (Marshall & Rossman, 2016). The main theme of the topical question was the following: How would you describe your procedures for using CKM tools and technology for customer engagement?

Data Collection Technique

The data collection process for this exploratory single-case study consisted of conducting semistructured face-to-face interviews, with the questions listed in Appendix A. I captured the interviews on a handheld digital recorder, a Livescribe Sky Wi-Fi Smartpen, with participant observations (field notes) to capture any significant body language in a Livescribe journal designated for the research. The Livescribe Sky WiFi Smartpen was user friendly and effortlessly interfaced with the preferred computer operating system.

Rubin and Rubin (1995) mentioned that the semistructured interview technique entails a line of questioning intended to clarify themes by guiding the dialog in the direction of the issues indicative of the topic interest. The flexibility of semistructured interview has the potential for uncovering significant and perplexing components of organizational behavior (Rowley, 2012). Marshall and Rossman (2016) revealed that for interviewing management participants, using general themes and open-ended questions would support autonomy for managers to share their knowledge and engage their imaginations while revealing their experiences, analyses, and opinions (see Appendix A).

After each interview and transcription via Microsoft Word Dictation software, and synthesis of raw data, I sent the participants a time sensitive (three day turn around) email for transcript checking so that they had a chance to evaluate the material. No changes were necessary to add to the transcribed documents. I analyzed and interpreted the data and followed up via a telephone conversation for member checking information.

Data Organization Technique

Stake (1995) applauded keeping a journal of dates, contact information, keywords, visual clues, and observations during the interviews, plus self-reflection. Marshall and Rossman (2016) suggested labeling audio recordings auspiciously for ease of identity by transcription. The research effort included a Livescribe journal to document my observations including the tone, language, and mannerisms of the marketing experts during the interviews, and later, I complemented the journal by detailing the labels (M1, M2, M3, M4) added to the transcriptions. I transcribed the interviews using Microsoft OneNote and organized by the apparent themes and patterns using use the words and phrases of the participants, research effort included organizing these data files by topic in a paperless format with a backup virtual copy on a vaulted external hard drive. I stored the information on evernote.com, hard copies of I/ITSEC materials, MP3 digital recordings, and all relative information regarding the participants in a secured facility at my home. After 5 years, I will remove the digital information, including the Livescribe Sky Wi-Fi smartpen MP3 stored digital audio interview tracks and the information on evernote.com. I will shred the hard copies of the information and mix the shredded material with mulch, and place the mixture in my garden to decompose.

Data Analysis Technique

Researchers use the case study approach to gain more understanding of the perspectives of participants (Zachariadis, Scott, & Barrett, 2013). The data analysis involved STC interview and member checking coding, field notes, and participant observation coding using NVivo 11 software. Houghton et al. (2013) posited that NVivo is valuable as a data management tool that can assist in data analysis. NVivo is an explanatory approach to examining the knowledge and experiences of the participants discovered during the research process (Houghton et al., 2013). Malterud (2012) developed STC using Giorgi's psychological phenomenological four-step analysis principles to develop themes using psychological triggers to give meaning to the responses. The answers to semistructured interview questions (see Appendix A) from a purposeful sample of four participants comprised the raw data for analysis. The participants' responses answered the central research question: What CKM strategies do marketing managers use to improve business-to-business customer engagement?

The goal of the analysis was to formulate a textual description of the experiences of each participant in the study. Using standard qualitative data analysis software assisted in uncovering patterns, themes, and develop underlying conceptual framework from the archived data and integrate the keywords and phrases recognized from STC analysis to establish continuity (Legewie, 2013). Triangulation encourages the researcher to review data collected from multiple sources focusing on confirming themes or recognizing patterns within the phenomenon (de Oliveira & Pereira, 2014). Legewie (2013) added that data analysis involves researcher enthusiasm, contemplation, and descriptions consistent with the research goals and the phenomenon in question. Data analysis and synthesis of marketing data is an artistic undertaking incorporating knowledge of the marketplace, researcher creativity, imagination, and foresight and should not be an unconscious pursuit (Zachariadis et al., 2013). Supplemental analysis software adds an objective, rigorous ingredient to qualitative research (Malterud, 2012). Analytical software grants researchers a range of techniques and tools to help with organization and analysis, yet the researcher still must discern the codes and immerging concepts (Yin, 2014).

After transcription of the interviews, I reviewed the transcripts, synthesized concepts, and used member checking, with a 5 to 20 minute telephone conversation, to ensure the information was accurate. Drawing from Malterud's (2012) STC, I developed a protocol to recognize accuracy, transparency, and completeness in the data organization and to reduce potential coding errors. I (a) looked through the lens of the participants; and (b) looked for significant statements, patterns, and themes within the transcripts that relate to the fundamental research question. Then (c) began coding, including the sorting and organizing of themes previously noted, (d) grouped the coded themes by participant looking for context, comprehensive elements, and contradictions, and (e) synthesized the findings. I integrated information retrieved from the participants, using my STC protocols and the participants' words for topics, observations, and member checking interpretations to develop themes and patterns.

Reliability (Dependability) and Validity (Trustworthiness)

The significance of any research depends on the level of confidence others place in the researcher's findings (Åkerlind, 2012; O'Reilly & Parker, 2012). Measuring the reliability and validity of instruments and methods in qualitative research is difficult in contrast to measurements for quantitative research methods (Elo et al., 2014; Marshall & Rossman, 2016). Qualitative researchers looked at other ideas such as credibility, dependability, and transferability instead of the traditional quantitative reliability and validity to and establish trust and demonstrate rigor to capture similar concerns that readers may have (Elo et al., 2014). The criterion for these qualitative terms are not measurable and the use of multiple data sources, for methodological triangulation, established an alternate component for trustworthiness and repeatability (Yin, 2014).

Reliability and validity are quantitative terms, they indicate rigor as suggested by Lincoln and Guba (as cited in Houghton et al., 2013). Guba (1981) recommended that qualitative researchers attempt to realize *trustworthiness*, comparable to quantitative validity.

Reliability and validity, checking data through member checking and methodological triangulation, were the criteria that I used to establish the rigor or the trustworthiness and the repeatability of my study. Although the assessed criteria for reliability and validity in qualitative research, the audience should consider the results credible (Tsang, 2014). Four qualitative gauges for trustworthiness are credibility, transferability or generalization, dependability, and confirmability (Elo et al., 2014). The reliability and validity gauges are dependent upon the research questions, and the representations constructed from the analysis and synthesis of participants' experiences (Marshall & Rossman, 2016).

Content and context develop the reliability, accuracy, and transferability (Tsang, 2014). Marshall and Rossman (2016) added that qualitative research had the reputation for researcher bias and subjectivity. Gordon and Patterson (2013) noted apprehension for the future applications of qualitative research. The tests for rigor (reliability, objectivity, and internal and external validity) became standardized criteria into the research paradigm of the social sciences (Elo et al., 2014; Guba, 1981; Marshall & Rossman, 2016). During the exploratory single-case study research, the role of the researcher included an emphasis on the importance of both the content and the context with methodological triangulation and member checking to support rigor.

Reliability (Dependability)

The reliability of a study refers to the reproducibility of the findings (Tsang, 2014). Åkerlind (2012) stated that evaluating the reliability of the data would measure the objectivity and the credibility of the research. Several methods such as purposeful sampling, a review of the transcripts, methodological triangulation, and theme analysis assure that the results are consistent (Houghton et al., 2013). The research effort included member checking and methodological triangulation in the single-case study. I used a LiveScribe journal to document details of the interviews, indicating adherence to case study protocols, as well as researcher thoughts and feelings at each step of the exploration to ensure reliability.

The interview questions are semistructured (see Appendix A), and the interviews transcribed using Microsoft Word, verbatim. After complete data collection, the role of the researcher included reviewing the transcripts with the participants for accuracy. I synthesized the data and verified the interpretations by member checking protocols according to Marshall and Rossman (2016). I coded the results of the interviews and organized portions of descriptive text into themes and topics. The research effort included cross-referencing the findings with member checking analysis, and the website data. The resultant indicators revealed clusters, patterns, and themes similar to those established in the literature review. The details regarding the methods for collection, coding, analysis, discussion, and conclusions are in Section 3.

Validity and Trustworthiness

Validity conveys honesty and authenticity of findings (Guba, 1981; Zachariadis et al., 2013). Yin (2014) recommended using multiple sources as a confirmation of the validity of the results of the research. I followed the suggestions of Yin (2013), by including in-depth interviews to assure validity. The interviews of a purposeful sample of marketing managers helped explore their perspectives and compare their experiences. Houghton et al. (2013) noted that the researcher should provide detailed evidence for the reader to make informed decisions about the transferability of the findings to their specific contexts. Using a population of experts would offer a comprehensive exploration of a topic (Trotter, 2012). The small number of decision-making experts for this exploratory single-case study gave a deeper understanding of the experience of the phenomenon under exploration (Yin, 2014). Yin recommended using triangulation, including in-depth interviews and member checking to convey a convergence of evidence necessary for a single-case study design with a small sample population. Triangulation helped to confirm my interpretation of the finding through the interviews of various levels of marketing decision makers, observations of real time and virtual training and simulation events at I/ITSEC, and the organizational website ensure data saturation or completeness (Houghton et al., 2013).

For internal validity (credibility), I gave the participants their transcribed interviews and my synthesis and asked them to provide information for clarification and contextual depth. For external validity (transferability), I conducted the interviews at the same time of the day and the same location in an attempt to replicate the surroundings. Marshall and Rossman (2016) posited that researchers explain their backgrounds to illuminate the potential for researcher bias in the interpretation of the data collected for the study. My history of B2B marketing and CKM assured that an objective incorporation of the essential marketing elements supported my research as well as maintain the credibility and transferability of the conclusions to members of the B2B marketing community.

Transition and Summary

An overview of the qualitative exploratory single-case study is in Section 2 of this document. The information included my role to address central parts of the research, such as the (a) purpose statement, (b) role of the researcher, (c) participants, (d) data collection, and (e) ethics of this research study. In Section 2 of the study, I suggested a deeper appreciation for collecting and analyzing the potential responses. I indicated the assignment of meanings to the lived experiences of participants and described how I evaluated the dependability, trustworthiness, and rigor of this qualitative exploratory single-case study. Using information in Section 2 concerning data collection, organization, and analysis, I provided a basis for ethical practices of the researcher in this study.

In Section 3 of the study, I summarize prior the information of preceding sections. Section 3 includes (a) an overview of the study, (b) the findings of the research study, (c) how this study may contribute to positive social change, and (d) recommendations for future actions. I include a reflection about the research process and ended Section 3 with a summary and conclusions.

Section 3: Application to Professional Practice and Implications for Change

This section begins with an introduction to the study, the purpose of the study, the research question, and the results of an analysis of the experiences of B2B marketing managers to improve customer engagement in a niche market. Section 3 includes the presentation of the findings of the study, applications for professional practice, and implications for social change. Included are recommendations for future research about the strategies of B2B marketing managers' to enhance customer engagement, reflections on my experience conducting this research study, as well as the summary of the study and conclusions.

Introduction

The objective of this qualitative, exploratory single-case study was to explore the problem that some marketing managers have limited knowledge of how to use CKM strategies to improve B2B customer engagement. Data collection included semistructured interviews of various level managers and participant observations of customer engagement, product demonstrations, and co-operative operations presentations at one of their industry's largest trade shows. To comprehend the marketing managers' understanding of CKM marketing protocols, I established one research question and 16 supporting interview questions and conducted semistructured face-to-face interviews with four managers in a B2B high-tech simulation and training provider. The participants of this study discussed numerous issues concerning the lack of a company-wide strategy and training for data mining and customer information storage. I used triangulation to analyze the data sequentially and logically to identify the findings and draw the conclusions. In a review of the emergent themes, I noted the approaches that the managers identified as essential to assist with CKM efforts that answered the main research question and sub-questions regarding customer engagement.

Presentation of the Findings

The findings from data analysis pertain to the central research question: What CKM strategies do marketing managers use to improve B2B customer engagement? The response rate for individuals willing to participate in the study represented 100% of the 4 managers approached. The purposeful sample incorporated four different level managers from a B2B high-tech simulation and training provider. I met with each manager, explained the research protocol, and presented a letter of information and consent form. The managers signed the consent form and agreed to have the interview recorded. The participants responded to the interview questions and presented substantive responses that varied in scope, depth, and consideration.

The participants clarified their responses as needed for interview transcription and member checking. Member checking formed part of the interview protocol and required all managers first to confirm the transcript to ensure validation and then approve my interpretations of their responses (Marshall & Rossman, 2016). Participant observations from interviews and I/ITSEC events permitted methodical triangulation of the data. After personally transcribing interviews, transcript review, and member checking, I replaced the names of participants with codes M1, M2, M3, and M4 and the company name with Company Z. In agreement with Legewie (2013), I loaded the documents and participant observation data into NVivo 11 for Mac software for coding to uncover themes and patterns.

I adapted Giorgi's STC method of analysis. The steps I developed were the following. First, I read the entire response for awareness and overview of the various components of the entire answer and then I re-read the interview materials to distinguish meaning, substance, and potential themes with the focus on the phenomenon for coding procedures. Next I interpreted the interviews, member checking, and participant observation, and uploaded the data into NVivo 11 for Mac. I ran data analysis using the participants' words for topics and discovered themes and patterns. The participants of this study discussed the various issues regarding the lack of a company-wide strategy for data mining and customer information storage. I triangulated the findings via member checking by asking the participants to review my summary and interpretation of their transcripts for accuracy and participant observations. The results of this study addressed the research question and the concerns of how managers might improve customer engagement within a B2B niche market.

Non-technological influences could affect the understanding and use of CKM technologies. Sundqvist and Svärd (2016) noted that organizational culture, psychology, structure, and management objectives generated the circumstantial basis for technology adoption, creating customer engagement. Exploring the factors for user resistance to technology plays a significant role in developing operational excellence (Ali, Zhou, Miller, & Ieromonachou, 2016). Sharing information is conducive to a learning culture and managers might need supplementary instruction to minimize resistance and encourage participation (Ali et al., 2016). Educating staff regarding the importance of sharing the information would be helpful for successful CKM ventures (Tarafdar et al., 2014). The findings indicated that component for ongoing, advanced training is a missing element to motivate staff to use software for CKM data mining and analysis.

The participants indicated exploiting existing databases and personal tools rather than an organization-wide flexible CKM tool. The emergent themes confirm the conceptual framework of technological opportunism and dynamic capabilities strategies within the company. Customers' proficiency and motivations involving CKM technology might lead to technophobia, where the complexity and scope of the technology might become overwhelming to management and the organizational culture (Aboelmaged, 2014; Tarafdar et al., 2014). The findings of this study confirmed the need for user-friendly CKM data mining software and ongoing training for staff, stratified by administrative level.

Emergent Themes

The emergent themes of the study resulted from the current strategy regarding the use of CKM tools by Company Z, a Dallas-based division of the hi-tech international organization, Company XYZ. I identified themes from the participants using NVivo data analysis derived from the in-depth interviews and my interpretations for member checking. I related the themes to the literature review and conceptual framework. The four emergent themes:

- Formal CKM Strategy
- Establish, Maintain, Promote, And Cultivate Relationships
- Purchase/Design A CKM Tool

- Training and Education of CKM Protocols

Theme 1: Formal Marketing CKM Strategy.

The first theme was the need for an organization-wide marketing strategy. Consistent with the findings of Tsai and Bagozzi (2014) ECOs abandoned marketing protocols during strategic development. Current data based upon customer knowledge should reinforce marketing strategies (Kotler et al., 2012). Of the interviews conducted, 75% of the participants noted a need for a corporate marketing plan. Executive management should thoughtfully design and execute marketing strategies for deliberate customer engagement and organizational sustainability (Hadjikhani & LaPlaca, 2013).

A sampling of direct quotes from interviews is as follows:

"The first thing I think of is a plan, and it is not just a personal plan, it is the plan that you developed with the team and vetted by your leadership…that is what needed." (M2)

"Need for stratified plans, the company plan, that is not micromanaging but giving me appropriate tools that allow the next level to define success." (M2)

"First, they have to understand our capabilities because you can't market what you don't have. They also have to understand those customer preferences, what's important to them in terms of potentially, who you would team with, technologies that deserve attention over others and then that effort to put that in a coherent package." (M3)

"On the passive side, advertising and information in the trade journals. On the proactive side, we use trade shows and marketing efforts. That is go to the major events that our customers attend. It goes back to that person-to-person." (M3)

"In a business sense, it (CKM) is routine, to be used in our product and process. We collected too late, and we don't collect continually, as if it were a military operation, we collect on need. That is part of the management of the process that we should improve upon." (M3)

"There is nothing formal in place…for CKM or how we go about doing that; it is informal procedures." (M4)

Planning is an important element in developing the marketing strategies for the various segments of the B2B environment (Hutt & Speh, 2013). Whereas some managers are resistant to the complexity and risk associated with marketing (Wilkinson & Young, 2013), the marketing mix is a central paradigm for successful operations in the B2B arena (Hutt & Speh, 2013). Managers should develop company-wide comprehensive strategies, including CKM, to support their marketing mix for sustained success and customer engagement (Fidel et al., 2015; Sundqvist & Svärd, 2016).

Table 1

References Related to Theme 1: Formal CKM Strategy

Theme	Number/Percent of Participants	Times Mentioned
Formal Strategy	4/100%	75
Strategy	4/100%	39
Plan	2/50%	45

Theme 2: Improve B2B Relationships.

The second theme was improving relationships. B2B relationships are complex and acknowledging the VOC aids in better understanding the B2B marketing environment. Homburg et al. (2014) mentioned that successful B2B suppliers aggressively manage relationships with customers, end users, and supply chain partners. Developing relationship strategies might provide B2B suppliers with the understanding of market idiosyncrasies, market segment preferences, and customer nuances.

A sampling of direct quotes from interviews is as follows:

"So, establishing a good professional relationship where you know their likes and dislikes, what they respond to, do they like to read the things, to look at concept pictures and diagrams, getting to know that is really, really important." (M2)

"We can team with someone to bring a relationship, not just a technical capability to an opportunity." (M3)

"The executive staff tries to develop relationships with acquisitions leaders and users at the senior level. Asking very straight questions." (M3)

"Well, a simple example at the trade show, the customers are also our competitors. So we look at our major competitors, who also we team with us or we sell to." (M3)

"It is important that you established that relationship to the point with the trust is no longer a barrier and is actually beneficial to the relationship itself." (M4)

Three of the four managers mentioned the importance of establishing, maintaining, promoting and cultivating relationships within their market niche. Solid relationships are essential within the B2B marketing realm. Relations may vary within different contexts and managers should maintain long-term relationships in all areas of the various market segments (Song et al., 2012).

Table 2

References Related to Theme 2: Improve B2B Relationships

Theme	Number/Percent of Participants	Times Mentioned
Establish Relationships	3/75%	17
Promote Relationships	3/75%	11
Maintain Relationships	3/75%	11
Cultivate Relationships	3/75%	11

Theme 3: CKM Tools

The third theme was the need for a CKM tool. Numerous factors indicate why CKM technology is either improperly used or not in use (Thalmann & Brettel, 2012). As noted in the dynamic capabilities and technological opportunism theories in the conceptual framework, the role of management involvement with CKM strategic initiatives and organizational psychology was a primary factor in this study. The dynamic capabilities framework states that during a robust market environment, organizations succeed by using available resources. Technological opportunism postulates that within a dynamic environment, managers might keep the available technologies to escape the consequences of uncertainty.

A sampling of direct quotes from interviews is as follows:

“I don’t think we understand it enough to know that we are doing it wrong.” (M1)

“My assessment of the problem is that they are not proactive enough. They are difficult to use, both in collecting the information and retrieving information, makes them less than effective. It is easier to seek other means of determining information and it zaps the motivation to actually use the system “ (M2)

“I don’t think we’re being held to that because I think it is perfect. I think we are being held to that because they think through repetition, we will figure out a better way of doing it.” (M2)

“The tools available to us, we have built. They are not robust, they are personal tools, and that’s maybe a shortfall on the management side.” (M3)

“I think there’s a wonderful theoretical thing that everything that you know about the customer from name, job title, spouse, children, interests, professional focus, objectives, career, all of those at the very individual level. Those are pieces of customer knowledge. You never get knowledge through customer engagement, you get data.” (M3)

“We really don't have any declared tools to actually do that (CKM). There are tools available but we have not really established any standard operating procedures for customer knowledge management or anything like that.” (M4)

“It (CKM) is something that we have done, but we have never really taken the next steps to implement it.” (M4)

In this study, three of the managers mentioned the need for a user-friendly CKM tool, but nothing is accessible within the corporation. The organizational psychology, organizational culture, structure, and objectives created the foundation for CKM acceptance yet technophobia might be a factor for maintaining the status quo for CKM tools. Technophobia encompasses the attitudes and experience with the technology, where the complexity and scope of the technology might become overwhelming to management and organizational culture (Aboelmaged, 2014; Tarafdar et al., 2014).

Table 3

References Related to Theme 3: *CKM Tools*

Theme	Number/Percent of Participants	Times Mentioned
Data Mining Warehouse	3/75%	22
Modify Repository	2/50%	8
Repository	2/50%	5
Data Mining	2/50%	4
Software	1/25%	2
Database Format	1/25%	1

Theme 4: CKM Training.

The fourth theme was the need for training and education in CKM protocols. Company Z, a division of a hi-tech Company XYZ, provides the software for simulator production, training delivery and administration, training research, and logistics support. Their workforce lacks the training needed to facilitate a simple CKM operation. Researchers indicated that 90 % of CMOs studied believed that data driven CKM would help productivity while 39% reported that they were unable to use the information (Kumar et al., 2013).

A sampling of direct quotes from interviews is as follows:

"The only reason why (CKM) works is because we hire our customer…To me it is an untraditional way to go. But, it seems to be working." (M1)

"Preparation is needed. We have to have a context and a plan to apply value to the customer, in the customers' eyes." (M3)

"That is an emphasis in our training for the business development staff, our engineering, and our program management, all attend the same training." (M3)

"You have to maintain your skills. Although training is a common support mechanism to make us better…I think that retraining, a reminding, the reinforcement, is an important thing to improve how we are doing (CKM)." (M3)

"A selection of CKM tools, which ones to use, how to use them. That is going to require training, and also showing the benefits of how to use the tools and why we are using CKM." (M4)

"Having procedures in place to share that (CKM) information, the incentives, a combination of positive and negatives and how to encourage folks of how to use (CKM)." (M4)

B2B marketing includes an assortment of philosophies and organizational theories. Sharing knowledge learned from customer engagement is an essential collaborative strategy for innovation and competitive advantage (Fidel et al., 2015; Tarafdar et al., 2014). Methods for sharing information are conducive to good internal marketing strategies. Supplemental organizational training regarding the use of CKM tools might add support needed for successful customer engagement. Innovative training practices for software considered complicated will contribute to effective CKM practices (Wilkinson & Young, 2013). Ongoing training along with management communications, primary analysis and software procedures might result in changing patterns among the staff regarding CKM protocols (Tsai & Bagozzi, 2014), resulting in acknowledgment of the influence, the confidence, and the importance of CKM data mining ventures for the entire supply chain (Ali et al., 2016; Day et al., 2013).

Table 4

References Related to Theme 4: Training and Education

Theme	Number/Percent of Participants	Times Mentioned
Sharing Data	4/100%	20
Training	2/50%	9
Courses/Classes	1/25%	4

Applications to Professional Practice

This study increases the body of literature for B2B companies' adoption of CKM technology for customer engagement. The study findings revealed four major themes, and these discoveries provided the foundation for recommendations for strategic actions as well as further studies. The purpose of this study was to explore the strategies that marketing managers use to improve B2B customer engagement. The emergent themes provide executive management with information for supporting shared knowledge and customer engagement. Organizational leaders and managers may use the study's findings to develop an organizational culture that is receptive to changes involving marketing strategies including CKM initiatives for customer engagement and decision making (Sedighi et al., 2012). Degbey (2015) posited the importance of using CKM and B2B marketing management tools for improving customer engagement and necessary for successful business practices. The findings and recommendations might strengthen the use of CKM relating to all levels of the organization as well as supply chain partners.

The findings included a synthesis of the numerous management activities as projected in the literature review and supplemented them with the results of this exploratory single-case study. The results signified unexpected reasons for improper use of CKM; the organizational psychology and a dynamic capabilities conceptual frame work agenda fall in line with the findings of Thalmann and Brettel (2012). Whereas Day et al. (2013) acknowledged the significance of understanding the necessities of both the B2B clientele and the end users to foster trust and long-term relationships; the findings demonstrated the lack of strategic organization-wide CKM marketing strategies.

The results highlight the need for ongoing training to implement a CKM program successfully. Marketing appeared to be missing from the business plans of the company. In professional practice, business leaders may gain practical insights from the results of this study regarding the need for organization-wide planning and training protocols related to marketing and CKM strategies (Eid & El-Gohary, 2014). The vigorous shifts in technology, logistics, customer demands, and increased competition, organizational leaders need subjective strategic measures instead of the fragmented micromanaging of departments for successful product innovations (Antony, 2013). Ongoing training and data mining protocols will increase the correct use of CKM technology relating to cultivating B2B relationships, learning valuable market information, indicate product preferences, and improved customer engagement (Homburg et al., 2014).

Implications for Social Change

The implications for positive social change include the potential to offer insights into marketing and CKM initiatives for a better understanding of customer needs. The findings of this study may contribute to social change by highlighting the need for marketers to embrace change and stay current with evolving trends in marketing. A significant effect of this CKM research study is for positive social change in business practices that might reflect an understanding that when behaviors change, so must business (Lin et al., 2012). The marketing community might also analyze the new knowledge to gain insight into consumer behaviors and beliefs that may lead to product innovations to improve customer engagement and enhance customer service.

Recommendations for Action

The findings and recommendations might strengthen the use of CKM for customer engagement relating to all levels of the organization as well as supply chain partners. Organizational leaders may consider evaluating their current CKM protocols with the strategies listed from the four themes to establish formal CKM strategies. The themes involve designing an organizational marketing plan, fostering B2B relationships, developing a customized CKM tool for their niche market, and creating and implementing formal, ongoing training for CKM initiatives. Adding an updated customer and supply chain portal to their existing website will add an option for feedback that might be useful for organizational learning, decision making, product innovation, and improve customer engagement (Alvi et al., 2015).

Fidel et al. (2015) recognized that using CKM is a significant tactical resource for progressive marketing outcomes. I recommend that leadership hires a Chief Information Officer (CIO) or Chief Marketing Officer (CMO) responsible for comprehensive organization-wide user-friendly CKM tools, learning initiatives, marketing protocols, knowledge sharing, and ongoing training programs for delivery at all staff levels. Management may consider reviewing operating strategies for CKM data mining initiatives with the CIO or CMO every two years to identify current prospects and innovative supply chain partners. Aligning marketing CKM tactics with strategic development applications, every three to five years may improve customer engagement and increase product innovation. Management might modify CKM protocols for product development and benefit from an expanded market.

The findings from this study are important to organizational leaders interested in improving customer engagement. I will disseminate the results of the study through a scholarly journal, and academic education. I may provide the results of the study through conferences and training venues to organizational leaders who are interested in improving B2B customer engagement via CKM and innovative marketing concepts.

Recommendations for Further Research

In this explorative single-case study, I explored what procedures marketing managers needed to improve customer engagement. Recommendations for further studies include addressing the limitations of this study, specifically, time limitation, the small size of the population, and the geographical location. I used a single Dallas-based B2B organization, four participants at various levels of management, and a niche market. The findings of this study warrant further exploration for a transferable and characteristic representation of B2B CKM procedures within other populations and market segments.

Because administrative support and data sharing was the focus of this study, supplementary studies may provide valuable insight for use of CKM within marketing strategies and enhance data quality within supply chain partnerships to strengthen relationships and improve customer engagement. There is a need to conduct studies in various markets on a larger scale, regarding CKM strategies that marketing leaders can use to improve customer engagement. Future researchers might validate the strength of the study by conducting long-range studies, using compatible participants, different geographic areas, and larger sample sizes. Organizational leaders, marketing managers, and executives may use the study's findings to identify the barriers to CKM implementation and use to support long term marketing strategies.

Reflections

"A good qualitative researcher cannot avoid the time-consuming work of returning again and again to the data, to check whether the interpretation is true to the data and the features identified are corroborated by other interviews…" (Elo et al., 2014, p. 5).

The Doctor of Business Administration (DBA) experience was an exciting process. The process provided an opportunity to learn from cohorts, expand my aptitude to teach at a college level, and gain a better understanding of the CKM initiatives within a B2B niche market. The process provided considerable insight on the issue from diverse perspectives. As I began the investigation, I was surprised to discover that my research partner, a successful, hi-tech firm did not incorporate marketing tactics, CKM strategies, and training operations into company wide protocols and that various managers handled the marketing. I wondered how the organization became successful and well respected in their industry.

Before the interviews, I was fortunate to attend I/ITSEC an out-of-state industry conference for supplementary participant observations. I gained a first-hand view of Company Z's products in action and observed each of the participants with their potential clients. I established a rapport with the participants, which added a bit of credibility to the research. While back in Texas to conduct the interviews, I engaged in the research with the intent of refraining from personal biases. I followed the interview protocol to ensure consistency. I did not know what to expect during the interviews. The participants responded openly and honestly to each question. All shared their leadership strategies, an illustration of years of service, and accomplishments that personalized their responses. I was surprised at the perceived barriers to customer engagement. Technology, communications, relationships, individual perspectives, and trust were unexpected responses from my preconceived notions of marketing.

I took the time to transcribe interviews thoroughly and correctly and used the NVivo 11 for Mac software to analyze and sort data digitally. NVivo helped with the data analysis process. I scrutinized the data to evaluate the interpretations and used a variety of the available tools to be sure that the member checking was indicative of the interviews. When I conduct future case study research, I will forward the mp3 recordings to a professional service for transcription; I will still use computer-assisted data analysis software tool to code and categorize narrative data for theme discovery.

Summary and Study Conclusions

Despite its limitations, the study makes several significant contributions to the emerging literature on CKM for customer engagement. The data gathered in this study was a result of semistructured, qualitative interviews with four managers. I collected the data to understand the strategies necessary for improved B2B customer engagement. The data led to emerging themes that allowed recommendations that may nurture a culture of innovation, learning, and agility. The recommendations support the sharing of information, ideas, and resources adaptable to a changing B2B environment, and promote CKM best practices across the organization. As leaders strive to develop competitively vibrant training and simulation products with skilled professionals and modern technological infrastructures, circumventing the influence and effectiveness of CKM adoption may reduce the level of customer engagement of the company.

CKM marketing strategies would incorporate a combination of ongoing staff training procedures to encourage nurturing client relationships, and sharing experiences. The training might give the staff members the tools to benefit from the capabilities necessary to improve customer engagement. Consistency in CKM implementation requires leadership support with successful initial training and ongoing training. The study revealed that marketing plans should include effective communication tools, CKM reengineering, and an executive commitment for CKM adaption to develop the latest training simulation products based on improved customer engagement.

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Appendix A: Interview Questions

The questions will be concerning the CKM procedures in marketing plans and information gathering techniques to answer the fundamental query: How would you describe your perceptions of and your experiences with CKM tools and technology?

Interview questions:

1. How would you define customer engagement?
2. How does your involvement apply to customer engagement?
3. What do you believe are barriers to customer engagement.
4. What do you think is needed by marketing managers to engage customers?
5. What strategies do you believe would better improve your organization's approach to customer engagement?
6. How would you define CKM?
7. What methods do you use to manage CKM?
8. How you use CKM to interact with customers?
9. What are your experiences regarding the implementation of CKM strategies?
10. How do you believe CKM strategies have an effect on improving your organization's approach to customer engagement?
11. What strategies do you believe would better improve your organization's approach to CKM?
12. How would you describe your supply chain?
13. What methods do you use to manage your supply chain?
14. How do you use CKM to interact with participants in your supply chain?

15. What strategies do you believe would better improve your organization's approach to CKM regarding your supply chain?

16. What else would you like to share that might contribute to your experiences regarding CKM and customer engagement?

Appendix B: Interview Protocol

Date______________________________

Location________________________________

Interviewer________________________ Interviewee______________________________

Instructions:

· Explain to the interviewee the purpose of the study.

· Assure confidentiality and have the interviewee sign the release form.

· Monitor your body language to make sure you do not influence any of the answers.

· I will audiotape each interview, and assign a number in chronological order to each one.

· Indicate interviewee number on top of page next to name.

· Ask questions and probe the interviewee to go deeper into their meanings.

· Record responses to questions, and transcribe exactly as given.

· Thank the interviewee for participation.

· After transcription and synthesis, I will contact the interviewee to complete member checking process.

Appendix C: E-mail of intention to AMA's LinkedIn B2B Group, Dallas, TX

Hello, my name is Lorraine Marzilli Lomas, a member of AMA's LinkedIn group and a doctoral student with Walden University. I am conducting case study research including voluntary, semistructured interviews with marketing professionals regarding Customer Knowledge (Relationship) Management (CKM) strategies from a single organization. Because the Dallas B2B LinkedIn group is my target population, I would like permission to invite a team of Marketing Managers from a single B2B company as my sample population.

My goal is to develop an understanding of the current business CKM practices concerning customer engagement within the B2B paradigm. The interviews should last approximately 45 minutes, 60 minutes at the very longest. I will record the interviews for accurate transcription and analysis.

Please note the following:

*Everything that we discuss is completely confidential.

*Nothing from this interview or my doctoral study can be traced back to the participant or the organization.

*All reports associated with this doctoral study will be confidential with no data traceable back to a specific person or organization.

I appreciate your assistance in help me complete my doctoral research. Results of this research project will be available to LinkedIn's AMA groups once publication of this study is complete.

Please email me at lorraine.lomas@waldenu.edu with your approval and suggestions.

Thank you,

Lorraine Marzilli Lomas, DBA (Student)

Appendix D: Organizational Invitation: B2B Organization, Dallas, TX

B2B Organization

To: Strategic Marketing Manager

I am a doctoral student conducting research on professional issues that affect B2B organizations where Customer Knowledge Management (CKM) practices are available. I would greatly appreciate your participation in my study by asking your firm's marketing managers for their time in a face-to-face interview.

You can assure your employees that all responses will be confidential and used for no other purpose other than academic research. The interview questions will not include personally identifiable information. A limited time window is available to participate in this research, so please offer the opportunity for participation now. If you feel that this opportunity is not applicable to your organization at this time, would you please recommend another B2B company with a CKM platform?

I appreciate your assistance in helping me complete my doctoral study. Results of this research project will be available upon publication of this study.

Thank you,

Lorraine Marzilli Lomas, MBA, DBA (Candidate)
lorraine.lomas@waldenu.edu

Appendix E: Acknowledgement of Marketing Manager for a Research Partner

FW: Inquiry Form Submission - Lomas

[redacted]

Thu, Aug 20, 2015 at 6:34 AM

To: "lorraine.lomas@waldenu.edu" <lorraine.lomas@waldenu.edu>

Lorraine,

My name is [redacted] and I am do the external marketing for [redacted] I would be happy to in your research. Please let me know how I can help.

Thank You,

[redacted]

Senior TradeShow Coordinator

[redacted]

Email: [redacted]

Appendix F: Informed Consent Form

You are invited to take part in an academic research study exploring the customer knowledge management (CKM) strategies of Company Z. A researcher named Lorraine Marzilli Lomas, MBA, who is a doctoral student at Walden University, is conducting this study. The researcher is inviting Dallas based, decision making B2B marketing managers who are familiar with CKM protocols to participate in the study. This form is part of a process called "informed consent" to allow you to understand this study before deciding whether to take part.

Background Information:
The purpose of this study is to understand marketing manager's perceptions, thoughts, and opinion regarding the practices and the use of CKM strategies for customer engagement.

Procedures:
If you agree to be in this study, you will be asked to:

- Participate in a one-on-one interview, held at a neutral location, lasting approximately 1 hour per interview, such as a local Starbucks.
- Answer 16 questions regarding your experiences with CKM strategies.
- Consent to being tape-recorded to ensure accuracy.
- Review the transcripts of your interview for accuracy.

Here are sample research questions:

- How are CKM marketing strategies used within your organization?
- Would you describe the most successful use of CKM in your marketing mix?

Voluntary Nature of the Study:
This study is voluntary. Everyone will respect your preference of whether or not you choose to be in the study. No one will treat you differently if you decide not to be in the study. If you decide to join the study now, you can still change your mind later and withdraw at any time.

Risks and Benefits of Being in the Study:
Participation in this type of study involves some risk of the minor disquiet that might be encountered in daily life, such as reminder of a stressful event. Yet participating in this study would not pose risk to your safety or well-being.

Additionally, the study might confirm the psychological character of marketing. The results may reaffirm the potential for sustainability, and growth with managerial consideration of CKM development strategies.

Payment:
There is no payment for involvement in this study. Results of this research project will be available participants once publication of this study is complete.

Privacy:
Any information you provide will be kept confidential. The researcher will not use your personal information for any purposes outside of this research project. Also, the researcher will not include your name or anything else that could identify you or your company in the study reports. All digital responses, data, and research instruments will be transferred from the researcher's computer hard drive to a portable, vaulted travel drive as well as a back up secured external hard drive, including consent forms, and Livescribe Sky Wi-Fi smartpen voice recordings. Voice recordings will be transcribed using Microsoft OneNote software and will be kept for a minimum of 5 years (as required by the university) in a secured vault. After that time, hard copies will be cross-shredded and digital data, securely erased.

Contacts and Questions:
You may ask any questions you have now. Or if you have questions later, you may contact the researcher via telephone at [redacted] or e-mail at lorraine.lomas@waldenu.edu. If you prefer to talk privately about your rights as a participant, you can call Dr. Leilani Endicott. She is the Walden University representative who can discuss this with you. Her phone number is 1-612-312-1210. Walden University's approval number for this study is **<u>IRB will enter approval number here</u>** and it expires on **<u>IRB will enter expiration date.</u>**

Statement of Consent:
I have read the above information and I understand the study well enough to make a decision about my involvement. By replying to this e-mail with the words, "I consent" to participate in this study. I understand that I am agreeing to the terms described above.

**Please print or save a copy of this consent form for your records.*

Appendix G: Letter of Cooperation from a Research Partner

Letter of Cooperation from a Research Partner

[redacted]
Senior Trade Show Coordinator

11/11/15

Dear Lorraine Marzilli Lomas,

Based on my review of your research proposal, I give permission for you to conduct the study entitled B2B Marketing Perceptions: Customer Knowledge Management and Customer Engagement within the [redacted]. As part of this study, I authorize you to interview marketing managers with intimate comprehension of marketing strategies, familiarity with organizational CKM, and the autonomy to make decisions for data collection, member checking, and results dissemination activities. Individuals' participation will be voluntary and at their own discretion.

We understand that our organization's responsibilities include: contact information of marketing managers. We reserve the right to withdraw from the study at any time if our circumstances change.

I confirm that I am authorized to approve research in this setting and that this plan complies with the organization's policies.

I understand that the data collected will remain entirely confidential and may not be provided to anyone outside of the student's supervising faculty/staff without permission from the Walden University IRB.

Sincerely,

[redacted]

Direct: [redacted] Mobile: [redacted]
Email: [redacted]

Appendix H: I/ITSEC Registration Confirmation

FW: Confirmation of I/ITSEC 2015 Registration

[redacted] Sat, Nov 21, 2015 at 5:42 PM
To: Lorraine Lomas <lorraine.lomas@waldenu.edu>

Lorraine,
Below is your confirmation to attend I/ITSEC 2015 (Nov 30 – Dec 3) at the Orange County Convention Center. Per our conversation I believe Wednesday from 1:00 – 2:00pm, would be the best day and time for you to view us interacting with customers. The exhibit hours are 9:30am – 6:00pm. For Thursday, we can sit down and you can interview myself and at least one other person. I still need to verify the third person's availability.

If you have any questions please let me know. The best way to reach me next week is via email. I have a hard time hearing my phone in the convention center.

Have a good thanksgiving.

Thank You,

[redacted]
Senior Trade Show Coordinator
[redacted]
Direct [redacted] | Cell: [redacted]
Email: [redacted]

From: I/ITSEC Registration <iitsecregistration@rhq.com>
Date: Saturday, November 21, 2015 at 5:28 PM
To: [redacted]
Subject: Confirmation of I/ITSEC 2015 Registration

We are pleased to confirm your registration for I/ITSEC 2015 taking place November 30 - December 4, 2015 at the Orange County Convention Center (SOUTH CONCOURSE) in Orlando, Florida. Below, you will find your payment receipt and additional conference information.

The following is the information you submitted. If any of the information is incorrect, you may make corrections online by going to:
https://secure3.rhq.com/iitsec/iitsec2015/attupdate/index.cgi
Log in using your confirmation number (shown below) and your email address.

Confirmation number: 352424

Exhibitor information:
Mrs. Lorraine Lomas
Marketing
[redacted]

Appendix I: Themes of Study

Theme	#/% Participants	Times Mentioned
Strategy	**4/100%**	**159**
Formal Strategy	4	75
Strategy	4	39
Plan	2	45
Improve B2B Relationships	**3/75%**	**50**
Establish Relationships	3	17
Promote Relationships	3	11
Maintain Relationships	3	11
Cultivate Relationships	3	11
CKM Tools	**3/75%**	**42**
Data Mining Warehouse	3	22
Modify Repository	2	8
Repository	2	5
Data Mining	2	4
Software	1	2
Database Format	1	1
Training/Education	**4/100%**	**35**
Sharing Data	4	20
Training	2	9
Courses/Classes	1	4