Walden University

College of Management and Technology

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Brian J. Savino

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Sue Subocz, Ph.D.

Walden University
2020

Abstract

Cash Conversion Cycle Strategies to Avoid Business Failure

by

Brian J. Savino

MBA, Wright State University, 2010

BS, Wright State University, 2006

Doctoral Study Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Business Administration

Walden University

August 2020

Abstract

At the end of 2018, the leading 2,000 U.S. and European companies had more than $2.5 trillion of cash unnecessarily tied up in working capital. The efficient management of working capital will lead to more cash invested in profitable projects leading to long term stability. This research will benefit chief financial officers (CFO) looking for strategies to manage working capital, which leads to higher profits and will help CFOs better manage economic downturns. Using the resource dependence theory as the conceptual framework, the purpose of this qualitative multiple case study was to explore cash conversion cycle (CCC) strategies used by business leaders to support the necessary cash flow to reduce the risk of business failure. The participants comprised 3 CFOs from the Tampa, Florida, metropolitan area who have developed strategies to manage cash. Data were collected via semistructured interviews and company documents. Thematic analysis was used to analyze the data. Four themes emerged: incentives to pay early, using industry standards published by the Risk Management Association for an optimal level of inventory, creditworthiness, and relationships. A key recommendation includes establishing customer financial wherewithal. The implications for positive social change include the potential to provide CFOs strategies to reduce the CCC, reduce the risk of business failure, and maintain employment stability, benefiting the community in which it is located.

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Dedication

I dedicate this paper to my wife and parents. My wife has been one of my biggest supporters, always believing in me when I did not believe in myself. As for my parents, my mother always expressed how proud she was of me by saying, "you're the best." My father spent most of his career working long hours to support me financially through every adventure without second-guessing my decisions and always stated, "May all your dreams come true."

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Section 1: Foundation of the Study

The cash conversion cycle (CCC) and its major components, specifically, days in inventory, days sales outstanding, and creditor payment period are associated with a firm profitability (Şamiloğlu & Akgün, 2016). The CCC combines three cash flow metrics to offer an indicator of a firm's cash position. The CCC is the sum of days of sales outstanding and days of inventory outstanding minus the days of payables outstanding (Afrifa, 2015). The CCC is the time required in days to convert investments in inventory and other resources into cash flow from sales. My objective in this qualitative multiple case study was to explore CCC strategies to support the necessary cash flow to reduce the risk of business failure.

Background of the Problem

Static measures of liquidity, such as the current ratio, are simple to compute but can be challenging to interpret (Milos & Milos, 2017). Working capital management (WCM) has traditionally used the current ratio (calculated as current assets divided by current liabilities) to measure a company's liquidity and ability to meet short-term obligations (Jiang, Lu, Shan, & Zhu, 2016). The current ratio changes daily as a company is collecting accounts receivable, buying and selling inventory, and incurring accounts payable from vendors.

Static measures of liquidity such as the current ratio do not incorporate the element of time; adding the CCC to traditional measures of liquidity leads to a more thorough analysis of a company's liquidity position (Milos & Milos, 2017). The CCC is a measure of continuous liquidity management, which includes both balance sheet and

income statement data with time dimension (Das, 2015b). A lower CCC represents a reduced working capital requirement whereby liquid cash is not held in other types of current assets and can be invested in other profitable projects (Das, 2015b).

Problem Statement

At the end of 2018, the leading 2,000 U.S. and European companies had more than $2.5 trillion of cash unnecessarily tied up in working capital (Sawarni, Narayanasamy, & Ayyalusamy, 2020). At the same time, almost 40% of this aggregate working capital had been financed by accounts payable leading to an aggregate investment in net operating working capital of $6 trillion (Setianto & Pratiwi, 2019). The general business problem is the difficult nature of managing a company's operating cash. The specific business problem is that some business leaders lack CCC strategies to keep the necessary cash flow to reduce the risk of business failure.

Purpose Statement

My purpose in this qualitative multiple case study was to explore CCC strategies that business leaders use to support the necessary cash flow to reduce the risk of business failure. The targeted population sample included CFOs from three manufacturing companies in Tampa, Florida, who have developed strategies to manage cash. Each of these participating businesses has been in operation for more than 10 years, with annual revenues exceeding $25,000,000 in 2018. The findings from this study could provide other businesses with different strategies in managing working capital cycles that lead to long-term stability, which could offer a local community steady employment.

Nature of the Study

The method selected for this research was qualitative. A qualitative method allowed me to record participant interviews to explore my specific research question (Dikko, 2016). A qualitative research design allowed me to collect data from multiple participant interviews that aided me in understanding what CCC strategies business leaders use to keep the cash flow necessary to reduce the risk of business (Newman, O'Reilly, Lee, & Kennedy, 2017). A quantitative research method identifies the relationships between two or more variables, whereas a mixed method study combines both qualitative and quantitative research (Yin, 2016). I rejected quantitative and mixed method studies, as these methods require the analysis of numerical data to test the relationships and differences among independent and dependent variables, which is outside of the scope of my study.

The objective of my study was to explore a bounded system, which is the reason I chose a case study versus an ethnographic, phenomenological, or narrative design. A case study design allows the researcher to collect data through observations and interviews (Yin, 2016). An ethnographic study focuses on the culture of a group through the interaction of the researcher, whereas a phenomenology design focuses on the participants' lived experiences (Aziato & Adejumo, 2014). My intent was not to explore the culture of a group or participants' lived experiences, so ethnographic and phenomenological designs were not suitable for this study. A narrative study involves chronological accounts (Bruce, Beuthin, Sheilds, Molzahn, & Schick-Makaroff, 2016). Because this study is not chronological, a narrative design would not be appropriate.

Research Question

What CCC strategies do business leaders use to support the cash flow necessary to reduce the risk of business failure?

Interview Questions

1. What strategies do you employ to reduce your accounts receivable days?
2. How do you maintain your inventory at an optimal level?
3. What strategies do you employ to extend your accounts payable days?
4. How do you ensure your customers pay within the trade credit terms you have provided?
5. How do you obtain favorable payment terms from your suppliers/vendors?
6. What additional information would you like to share about the cash conversion cycle?

Conceptual Framework

The resource dependence theory formed the conceptual framework for this study. Resource dependence theory was developed by Pfeffer and Salancik (1978). Theorists built upon the early work of social exchange theory by Emerson (1962) and Thibaut and Kelley (1959). The central premise of resource dependence theory is that firms will seek to reduce uncertainty and manage dependence by purposely structuring relationships through establishing formal or semiformal relationships with other firms (Ulrich & Barney, 1984). The premise of resource dependence theory aligned with my qualitative multiple case study, which was to explore CCC strategies that business leaders use to maintain the necessary cash flow to reduce the risk of business failure.

Most organizations are not internally self-sufficient regarding critical resources. One issue is introducing uncertainty into a firm's decision-making ability to the extent that the resource flows are not subject to the firm's control and may not be predicted accurately (Heide, 1994). A CFO's function is to keep the necessary cash flow to avoid business failure or bankruptcy. The main premise of resource dependence theory is that firms will seek to reduce uncertainty and manage dependence by establishing relationships with other firms (Kim, 2009). The board of directors has the responsibility to ensure the success of a corporation as its lifespan is intended to be until perpetuity. The C-suites executives – chief executive officers (CEOs), CFOs, and chief operating officers have a fiduciary responsibility to manage and make decisions that are in the best interest of the shareholders (Queen, 2014). Resource dependence had application to this study because understanding the CCC will help understand the relationship between firms.

Operational Definitions

Accounts payable turnover: A ratio that measures the speed in days that a company pays its suppliers (Milos & Milos, 2017).

Accounts receivable turnover: The number of times per year that a business collects its accounts receivable (Milos & Milos, 2017).

Cash conversion cycle (CCC): A financial metric that measures the length in time in days required for a company to convert cash invested in its operations to cash received (Laghari & Chengang, 2019).

Working capital (WC): The difference between current assets and current liabilities (Laghari & Chengang, 2019).

Working capital management (WCM): The management of a company's current assets and current liabilities (Kabuye, Kato, Akugizibwe, & Bugambiro, 2019).

Assumptions, Limitations, and Delimitations

Assumptions

Assumptions are elements of a study that are out of the researcher's control (Roulston & Shelton, 2015). The absence of assumptions in the research study could result in the findings being invalid (Leedy & Ormrod, 2013). A qualitative study has a potential source of error, which could lead to a misrepresentation of the findings (Roulston & Shelton, 2015). Three assumptions underpinned this research study in the attempt to explore strategies that leaders use to reduce their CCC. The assumptions included the following: (a) selected participants would have strategies to reduce their CCC, (b) selected participants would be honest with answers to interview questions, and (c) information provided by participants would address the research question.

Limitations

Limitations in research represent potential problems, deficiencies, and uncertainty that may impact the researcher's findings (Helmich, Boerebach, Arah, & Lingard, 2015) and involve factors or influences beyond the researcher's control (Fjellström & Guttormsen, 2016). In the case of this research, the participants' views might not be an accurate representation of other CFOs and their strategies to reduce the CCC. Another limitation of this study is that the CFOs might not have difficulties managing working

capital cycles. In addition, the limited amount of time spent with the participants because of the study's design was another limitation. Numerous forms of bias could threaten the validity of the study, which were mitigated by adhering to the principles of the *Belmont Report* (Roulston & Shelton, 2015).

Delimitations

A study's delimitations are within the researcher's control (Marshall & Rossman, 2016). Delimitations can help researchers with the required bounds for efficient management of the study (Yin, 2016). Geographical location is one delimitation. The participants consisted of CFOs from three manufacturing companies located in Tampa, Florida. Each company has been in business for more than 10 years with annual revenues exceeding $25,000,000 in the previous calendar year.

Significance of the Study

Contribution to Business Practice

The findings from this doctoral study could improve the management of the CCC. A CCC is a valuable tool for indicating the efficiency of a company's management of its working capital (Das, 2015b). Shang, Kuzmenko, and Uryasev (2016) suggested that WCM is one of the important items for management to focus on that can lead to the survival of a business. The findings will help CFOs manage their interest owed to banking institutions by reducing the average outstanding balance on a line of credit, and further, to reduce their collection time for accounts receivable, increase their inventory turnover, and extend their accounts payable without jeopardizing their relationships with

vendors. The findings provide companies with strategies that help mitigate charge-offs from uncollected accounts receivable as well as better inventory management.

Implications for Social Change

Society could benefit from the employment stability gained when CFOs improve their WCM as a result of findings from this study. Positive social change occurs when members of a society change their behavior for the betterment of society (Banks, Vera, Pathak, & Ballard, 2016). According to the U.S. Bureau of Labor Statistics (2018), private companies represent 84.8% of the total employment of the U.S. workforce. The business strategies that business leaders use to reduce the risk of business failure will help CFOs financially weather economic downturns without the need for employee layoffs. This study will provide CFOs a better understanding of WCM.

A Review of the Professional and Academic Literature

Literature Review Opening Narrative

The literature review consists of peer-reviewed articles, books, and other scholarly resources. *Ulrich's Periodical Directory* was instrumental to verify that the articles included in this literature review are from recognized peer-reviewed journals. Of the 72 sources in this literature review, 70 (99%) are peer-reviewed articles, and 50 (69%) have a publication date less than 5 years old.

To find articles published between 2015 and 2020, I used ProQuest, EBSCO Host, and Google Scholar. To locate articles, I used the search terms *cash conversion cycle, accounts receivable, inventory management, accounts payable, working capital, working capital cycles, accounts receivable turnover, inventory turnover,* and *accounts*

payable turnover. The objective of this qualitative multiple case study was to explore CCC strategies that business leaders use to support the necessary cash flow to reduce the risk of business failure.

Resource Dependence Theory

The resource dependence theory, developed by Pfeffer and Salancik (1978), is the conceptual framework for the present study. The central premise of this theory is that firms will seek to reduce uncertainty and manage dependence by purposely structuring relationships through establishing formal or semiformal relationships with other firms (Ulrich & Barney, 1984). Resource dependence theory was built upon early work in social exchange theory by Emerson (1962) and Thibaut and Kelley (1959). One rival theory is transaction cost theory, which dates to Coase (1937), who discussed when it would be appropriate for a business to seek outside help in performing vital functions within an organization. The other rival theory is agency theory, Demski and Feltham's (1978) model for the relationship between one party (the principal) who delegates work to another (the agent). Agency theory is appropriate for this study as it attempts to optimize the principal-agent relationship of two different parties. The principal can be thought of as the business, while the agent can be thought of as the customer.

Drees, Pursey, and Heugens (2013) used a meta-analysis to consolidate 157 tests of resource dependence theory to verify that organizations respond to resource dependencies by forming interorganizational arrangements that help to legitimize companies. Drees et al. demonstrated that mechanisms linking arrangement formation to organizational autonomy and legitimacy differ across arrangements, addressing resource

dependence theory as one of organizational performance. Drees et al. suggested that autonomy positively facilitates the relationship between arrangement formation and performance.

A firm's ability to adapt to a changing market depends on the capabilities of its management personnel (Day, 2013). Day (2013) defined *dynamic capabilities* as a category of resources that enable organizational fitness and help shape the environment by sensing threatening organizational changes, responding to them in the most efficient way possible, and selecting the appropriate organizational configuration and business models for maximizing economic profit. Day concluded by listing adaptive qualities necessary to make use of both tangible and intangible company resources.

The three facets of an organization's dependence (i.e., the environment, other members, and the network) could be analyzed on the survival of interorganizational networks (Klein & Pereira, 2016). Resource dependence theory was depicted as showing that firms cannot internally produce all the resources necessary to sustain themselves and that they need to form relationships with other organizations and cooperative networks to facilitate adequate flow of resources. Klein and Pereira (2016) stated that, in becoming part of a network, an organization will have to manage its dependence in relation to other members as well as to the network itself.

Kozlenkova, Samaha, and Palmatier (2013) reviewed resource dependence theory, including definitions and explanations of key terms. Marketing research concluded four perspectives: marketing domains that use resource dependence theory, differentiating characteristics and uses of market-based resources, an extension to the

"marketing exchange" as a unit of analysis, and its connection to related theories. Kozlenkova et al. suggested that the evolution of resource dependence theory through clarification, adjustment, and modification continues to increase its applicability and breadth, which will lead to increased explanatory power and generalizability.

Resource dependence theory can describe the merging, alliance forming, and co-opting tactics that organizations use to obtain resources from the environment (Malatesta & Smith, 2014). Malatesta and Smith (2014) began by identifying the manager's role as compared to the environment's influence on the success or failure of both commercial and non-profit businesses. Malatesta and Smith confirmed the theory's guiding principles as consistent with the present fiscal landscape while recognizing that organizations can be affected by the broader social context in which they operate.

Mitchell (2014) identified strategies of resource dependence theory, explained the emergence of strategic response, and explored the conditions under which non-government organizations (NGO) can best preserve organizational autonomy. Mitchell conducted in-depth interviews with top organizational leaders from a diverse sample of NGOs registered in the United States. Mitchell suggested transnational NGOs, while typically viewed as members of networks, can also be understood as autonomous firms mediating between donors and beneficiaries and employing multiple strategies in response to resource dependence.

In the context of emerging organizations there is a relationship between embedded ties and low-cost resources beneficial to entrepreneurs, specifically in the context of emerging organizations (Newbert & Tornikoski, 2011). Newbert and

Tornikoski (2011) addressed the potential of dependence on ties to raise resource acquisition costs, and the installation of these ties to affect the specificity of resources. Results indicated that the cost-reducing effects of relational embeddedness are substantial enough to mitigate threats of abuse from influential supporters when negotiating the terms of exchange. Additionally, Newbert and Tornikoski suggested that the way entrepreneurs embed their ties to supporters may influence the resources accessible to them.

Fowles (2013) employed resource dependence theory to examine the relationship between institutional reliance on tuition dollars as a source of revenue and expenditures for educational activities at public, 4-year universities in the United States. Based on data analysis, Fowles used an instrumental variable approach to prove that expenditures are responsive to changes in revenue patterns. The results were consistent with the predictions of resource dependence theory, which suggested that institutional finances shift towards an increased reliance on tuition revenue.

Powell and Rey (2015) addressed the challenges associated with reduced revenue and rising costs at public universities in the United States and explored the ways institutions can leverage resource dependency theory framework for strategy formulation and increased resource capacity. Referring to resource dependence theory's connections to public higher education and use in explaining the institution's interdependence with its external environment, Powell and Rey suggested strategies for producing and securing more financial resources, listed strategic planning suggestions for university administrators, and concluded that university personnel's acknowledgment of changes in

the economic climate and the market forces makes it imperative for public educational institutions to understand resource dependence.

Resource dependence theory was used to explore the way companies manage environmental constraints and the management strategies that affect business outcomes (Schuster & Holtbrügge, 2014). To answer the question of whether environmental conditions of low-income markets necessitate innovative practices, Schuster and Holtbrügge (2014) tested their hypotheses against data from 103 firms operating in low-income markets and demonstrated that companies create products and cooperate with nontraditional stakeholders to reduce resource dependency.

Voss and Brettel (2013) modeled the question of how small firms' human resource management (HRM) systems influence the effectiveness of their formal and informal management controls by developing a model based on Green and Welsh's (1998) application of resource dependence theory to management control and tested its propositions using structural equation modeling on a sample of 317 small firms. Results indicated that control has a stronger effect on performance if the firm emphasizes HRM, which indicated that a strong management portfolio must be comprised of both formal and informal controls. Yeager, Zhang, and Diana (2015) studied the lack of knowledge surrounding environmental and organizational factors associated with hospital participation in Accountable Care Organizations (ACO). Using resource dependence theory to explore external environmental characteristics and organizational implementations relating to hospital participation in Medicare ACOs suggested that

hospitals operating in more liberal and competitive environments are more likely to participate in ACOs.

Khieng and Dahles (2014) evaluated the effects of strategies applied by Cambodian NGOs to reduce their dependence on external resources regarding the mission, program, and funding sustainability. Results suggested NGOs' dependence on foreign aid affects the predictability of funding, goal achievement, organizational autonomy, and management accountability. Khieng and Dahles presented resource dependence theory with companies in a developing country as implying substantial power differentials between international funding agencies and receiving local NGOs.

Verbruggen, Christiaens, Reheul, and Van Caneghem (2014) discussed how resource dependence and agency characteristics of nonprofit companies that require audited financial statements are relevant in explaining audit pricing. Verbruggen et al. were attempting to address a void in the academic literature on fees for audited financials in the nonprofit sector. A study was conducted using a sample of 1,748 Belgian organizations' data from 3 years and indicated that auditors charge fee premiums and auditors with nonprofit expertise charged lower fees when expertise was measured by the auditor as opposed to the firm's knowledge.

Brown and Williams (2015) investigated how small firms' HRM systems influence the effectiveness of both their formal and informal management controls. Brown and Williams developed a theoretical model based on previous applications of resource dependence theory to control and test its propositions using structural equation modeling in 317 firms of fewer than 250 employees. Results suggested that control has a

stronger effect on the performance of small and medium-sized companies if the firm emphasizes HRM and managers of small firms require a portfolio of formal and informal forms of control.

Rival Theories

Game theory

Bier and Lin (2013) examined regulatory incentives for disclosure of risk estimates, noting that many companies already perceive incentives not to perform safety tests on their products and emphasizing the limitations of liability law in such cases. In discussing companies that employ deceptive practices, Bier and Lin posed the question of whether punitive systems are best equipped for avoiding and solving these dilemmas. Bier and Lien showed examples of risk-informed regulation models and suggested that further work in this area could help counteract the favorable regulatory treatment to companies.

Agency theory

Pretorius (2016) combined the agency theory approach with analytic auto-ethnography and a compilation of diverse management narratives to explain what appear to be quasi-agency relationships. Pretorius suggested that principal-agent relationships suffer because of asymmetrical goals, information access, informal power structures, and diverging perceptions of moral hazard and transaction costs. Pretorius proposed that a company providing directors, shareholders, creditors, regulatory authorities, and BRPs with an enhanced understanding of the practical relationship manifestations will help to overcome the noncontractability of newly formed management networks.

Rashid (2014) investigated the influence of board independence on firm agency cost among listed companies in Bangladesh that showed concentrated ownership and high insider representation on their corporate boards by focusing on three measures of agency cost: the *expense ratio,* the *Q-free cash flow interaction,* and the *asset utilization ratio* to elaborate upon the hypothesis that board independence can reduce firm agency costs only when the measure is specific to the asset utilization ratio. The results of a nonlinearity test suggested the benefit of outside independent directors is plausible for controlling agency costs if the company's board demonstrates a moderate level of independence.

Villiers, Naiker, and Van Staden (2011) examined the relationships between strong firm environmental performance and board characteristics when the natural environment and related strategic opportunities have increased in importance. Evidence was consistent with both agency and resource dependence theories of board roles. Results showed higher environmental performance in firms with higher board independence and a lower concentration of directors appointed after the CEO, which is consistent with agency theory. Villiers et al. found environmental performance higher in firms with larger boards and more active CEOs and legal professionals on the board.

Mahaney and Lederer (2011) examined agency theory as a lens through which to understand information systems project success and failure by conducting an online survey to collect data from 428 project managers and 65 other team participants and then analyzing the collected information for reliability and validity. Using a structural equation model to test hypotheses about the interactions of systems development

monitoring, goal conflict, and privately held information, results indicated that monitoring both directly and indirectly through privately held information predicts project success.

Transaction cost theory

Giacobbe, Matolcsy, and Wakefield (2015) examined transaction cost theory to study multinational corporation headquarters' use of management control systems when directing wholly owned foreign subsidiaries. They developed the study's context by conducting a series of qualitative interviews and then providing quantitative evidence based on cross-sectional survey data. Results indicated that activity traits significantly influence control choices, especially the archetypal combinations chosen by headquarters.

Brahm and Tarziján (2013) used data from the Chilean construction industry to determine how transaction cost theories interact in explaining building contractors' decisions to partake in the specialty trade activities needed to complete projects. Research indicated that the contractor's productive capabilities mediate the relationship between transaction hazards inherent either to temporal specificity or an exogenous change in the subcontracting law and the vertical integration decision. Results showed that integrating differential capabilities into transactional hazards introduces systemic patterns of heterogeneity into contractors' boundary choices and contributes to the relevance of these theoretical perspectives.

Working Capital

Kalyani and Reddy (2018) evaluated the working capital performance of the battery industry in Andhra Pradesh. They referred to working capital as *operating capital*

or *rotating capital* which current assets will be in a state of continual change and involve a constant movement of funds, in which the original form of cash is transformed into inventory, accounts receivable, and back to cash. Wanting to gain a better understanding of working capital positions, Kalyani and Reddy determined that all battery companies in Andhra Pradesh had more current assets than current liabilities, suggesting each battery company benefited from a positive net working capital position.

Fletcher, Rose, and Mulford (2018) discussed the distinction between temporary and permanent working capital, as a gap exists in academic research between the two types of working capital. Using year-end balance sheets and annual income statements to compare the results of a firm's short term and long-term asset financing strategy, Fletcher et al. suggested that firms typically reduce their working capital at fiscal year-end. The following year leads to a rebuilding of working capital that leads to temporary working capital artificially being reduced. Fletcher et al. suggested that future research with a longer time horizon would be needed to understand the mix of temporary and permanent working capital better.

Efficient WCM has a connection to firm profitability and enhances shareholder value (Kelly & Stagliano, 2018). Kelly and Stagliano (2018) addressed the understudied subject of the CCC and the connection between working capital efficiency and enhancement in shareholder value. In an analysis of a sample of large firms from 1980 to 2006 with a minimum of $500 million in revenue, research indicated that management of the firm's working capital, and controlling of the CCC, can have a substantial effect on performance as measured by widely used financial ratios. Because enterprise value is

calculated on the present value of future cash flows, a faster and more efficient turnover rate of WCM should lead to higher expected cash flows, therefore, increasing shareholder value.

Shareholders reward firms with superior WCM strategies with better performance over longer holding periods across the economic cycle, especially in bear market cycles (Filbeck, Zhao & Knoll, 2017). Filbeck et al. (2017) researched the effects of efficient WCM within a firm as it relates to shareholders' return on investment. WCM was based on accounting metrics used by CFO Magazine, which consisted of days sales outstanding, days inventory outstanding, days payable outstanding, and days working capital. Filbeck et al. suggested that the liquidity constraints during the financial crisis of 2007-2008 provide a reminder of the importance of WCM strategies.

There is significant evidence that an incremental dollar invested in net operating working capital is worth less than an incremental dollar held in cash (Kieschnick, Laplante, & Moussawi, 2013). Any dollar invested in net operating working capital is influenced by a firm's future sales expectation, debt, and financial constraints, suggesting that the value of an incremental dollar extended by credit to a firm's customers has a significant effect on shareholder wealth which are consistent with the models developed by Sartoris and Hill (1983) and Kim and Chung (1990).

Aktas, Croci, and Petmezas (2015) examined the effects of WCM using a sample of U.S. firms from 1982 to 2011 and determined that there is an existence of an optimal level of working capital and firms must converge to that optimal level by either increasing or decreasing their investment in working capital. Aktas et al. suggested that

firms should redeploy underutilized working capital resources to more efficient uses, such as funding growth investments. Results indicated that managers should avoid having too much cash tied up in working capital and target an optimal level of working capital.

Wanting to determine what factors influence working capital requirements, Azeem (2015) used working capital as an independent variable and six dependent variables (operating cycle, operating cash flow, level of economic growth, return on assets, leverage, and size). Results indicated that operating cycle, return on assets, leverage, size, and level of economic activity were negatively related to working capital requirements while operating cash flows and sales growth were positively related to working capital requirements.

Timing differences between cash flows can come from "payment shocks," such as a customer paying for their credit purchase either before or after the end of a fiscal period (Ball, Gerakos, Linnainmaa, & Nikolaev, 2015). Timing differences between cash flow and earnings can create a net investment in working capital because of positive or negative growth. Ball et al. suggested that growth, whether positive or negative, altered the optimal level of working capital and concluded that reductions in sales could lead to an increase of inventory altering the target level of working capital.

Madhou, Moosa, and Ramiah (2015) examined the interaction of corporate profitability, WCM, and firm characteristics. Corporate profitability was defined as net profit, return on assets, and economic value added. Results demonstrated that size, and the debt ratio are statistically significant determinants of a firm's profitability and

suggested that firms with the best working capital surplus and worst working capital deficiencies exhibit a statistically significant negative coefficient on the debt ratio. Madhou et al. suggested that risk management has become the "fifth arm" of WCM and evidence indicated that liquidity risk affects corporate profitability measured by net profit and return on assets.

The speed of rotation for working capital requirements is determined by calculating the working capital turnover ratio (Nicoară, 2015). The working capital turnover ratio shows the relationship between the funds used to finance a company's operations and the revenues a company generates as a result. Another way of expressing the equation is the measurement comparing the depletion of working capital used to fund operations and purchase inventory, which is then converted into sales revenue for the company. A high turnover ratio shows that management is efficiently using a company's short-term assets and liabilities for supporting sales.

Oseifuah and Gyeke (2017) studied the relationship between WCM and firm value for 75 South African firms listed on the Johannesburg Stock Exchange. Regression analysis was used to determine the relationship between WCM and return on assets. Results indicated there was a significant positive relationship between firm value and both the inventory turnover and accounts receivable days as well as a significant positive relationship between accounts payable deferral period (delaying payments to suppliers) and profitability.

Using 254 Indian manufacturing firms over a 10-year period, results confirmed that working capital investment is excessively sensitive to cash flow surprises (Altaf &

Shah, 2018). Altaf and Shah (2018) suggested that an active and efficient working capital policy should be established to mitigate cash flow shortages. He, Mukherjee, and Baker (2017) examined 511 Chinese manufacturing firms between 2003 and 2011 and discovered that an efficient level of working capital is associated with improved market performance. Regression analysis demonstrated that improved efficiency in working capital leads to a positive effect on firm performance using Return on Equity (ROE) as a benchmark for measuring performance.

The 2008 financial crisis was a result of mismanagement of firms' working capital (Haron & Nomran, 2016). The study period was divided into three different scenarios, 2002-2006 (before the crisis), 2007-2008 (during the crisis), and 2009-2012 (after the crisis). Haron and Nomran (2016) used the CCC as the method of measuring WCM and noticed a negative relationship between profitability and firm size with WCM for all three periods. Sales growth is negatively related to WCM before and after the crisis periods. Debt appears to be mixed, with a positive correlation before the crisis but a negative correlation after the crisis. Free cash flow is positively related during the crisis period, and liquidity did not have any significant relationship. Haron and Nomran recommended that managers should be aware of factors affecting WCM and give attention to profitability, debt, sales growth, and firm size in their WCM, regardless of the economic scenario.

Akram et al. (2016) performed a comparative study testing the impact of WCM on the market return of the chemical sector in Pakistan and India. Using the chemical companies listed on the Karachi Stock Exchange of Pakistan and National Stock

Exchange of India were studied for a period of 14 years from 1998 to 2011 representing 74 companies in total. The market return was used as the dependent variable, and several financial ratios were used as independent variables, including the CCC. The results showed the CCC had a significant positive relationship suggesting that working capital plays a vital role in market return (shareholder wealth).

CFOs focus more on the cost of capital versus adjusting financial targets of working capital because the idea of efficient working capital has become a management routine (Kroflin & Kratz, 2015). Finance managers routinely focused on concentrating on the changes of working capital and working capital reduction strategies, independent form interest rates, and adjusted their attention to working capital target achievement to the ease of access to capital and level of interest rates.

Several factors affect working capital of manufacturing companies listed on the Indonesian Stock Exchange including firm size, firm growth, cash flow, probability, and gross domestic product toward working capital, whereas leverage and capital expenditures showed an insignificant effect (Fatimatuzzahra & Kusumastuti, 2017). Chauhan and Banerjee (2018) investigated whether working capital of Indian manufacturing firms had an optimal or target level of working capital using the CCC as a measure of net working capital. The results suggested that there is not a perceptible aggregate target behavior by the Indian manufacturing firms and that the cash cycle movement varies irrespective of its target across firms. Chauhan and Banerjee suggested that certain firm-specific variables did influence the CCC.

Current Assets and Current Liabilities

Deari (2015) analyzed net trade credit for 25 firms from 2011 to 2013. The firms consisted of services, construction, catering, trade, and agriculture companies. Deari performed a regression analysis of the data with net trade credit (the difference between trade receivables and trade liabilities divided by total assets) as the dependent variable against seven independent variables. Results indicated that more profitable firms with higher current assets and cash to total assets ratio have more trade receivables than payables. Also, more profitable firms have a higher liquidity level and are better able to convert sales into cash than are their counterparties. On the other hand, profitability is negatively associated with total debt financing, which implies that profitable firms have their business financed with equity and accounts payable versus traditional debt instruments.

Muscettola (2015) developed a practical application of credit risk modeling for privately held corporate firms to explain certain variables as a model for bankruptcy prediction. Thirty-two accounting ratios were tested through regression modeling, including accounts receivable and accounts payable turnover, as well as net working capital to sales. Muscettola suggested that business failure within 3 years can be forecast based on certain accounting ratios with interest expense/sales and fixed assets turnover being the best at bankruptcy prediction.

Selling by cash is the ideal way of improving cash flow, but often a company must sell on credit, which in turn creates an account receivable (Adusei, 2017). When a company sells on credit, the risk of not collecting the receivable and of resulting bad debt

increases significantly. Using regression analysis, Adusei determined that 61.3% of the time avoiding an account receivable becoming uncollectable could be determined by the following: lack of proper evaluation for issuing credit, poor credit terms, and lack of effective follow-up when an account receivable becomes past due.

Kasozi (2017) examined the trends in WCM and their impact on the financial performance of manufacturing firms on the Johannesburg Securities Exchange. Findings from the study revealed that the average collection period (accounts receivable) and the average payment period (accounts payable) are negative and statistically significant to profitability suggesting that companies that effectively manage their accounts receivable and pay their creditors on time perform better than their peers.

Firms with short-term or long-term debt are less likely to engage in accounts manipulation to avoid working capital deficits, while firms that pay dividends are more likely to do so (Jiang et al., 2016). Firms tend to overstate accounts receivable through recognizing less allowance of bad debts or loosening their credit policy to avoid a working capital deficit, which suggests that firms that tend to have a current ratio of 1.0 should be paid additional attention from an audit standpoint. There is a significant negative relationship between net working capital and firm valuation, profitability, and risk (Le, 2019). Le suggested that WCM is of particular importance in firms with less access to capital. Vuković and Jakšić (2019) examined the effect of WCM on the company's profitability in the food industry from 2010 to 2014. Results indicated that WCM has a statistically significant impact on profitability, which suggested that an optimal level of WCM can contribute to growth and profitability.

Setianto and Pratiwi (2019) studied the existence of excess working capital in Indonesian firms and the effect excess working capital caused to their financial performance. The sample included 425 firms from 2010 to 2014 and indicated that a higher working capital leads to lower performance and risk. Any additional investment in working capital reduces a firm's performance for companies that have excess working capital while an additional investment in working capital reduces a firm's risk for those that have working capital deficiencies.

Cash Conversion Cycle

An assessment of a company's liquidity is important because a decline in liquidity leads to higher bankruptcy risk (Cagle, Campbell & Jones, 2013). The most commonly used measure of liquidity is the current ratio which fails to incorporate a measure of "nearness to cash." Cagle et al. (2013) defined the current ratio as a static measure of liquidity, whereby the current ratio measures a moment in time. The CCC can provide a useful calculation of liquidity by adding the days outstanding inventory plus the days outstanding receivable and then subtracting the days outstanding payable. A shorter CCC is favorable, and a negative CCC is possible. A negative CCC would indicate that the company manages its working capital so well that it can purchase and sell inventory and collect the resulting receivable before the corresponding payable is due.

Shin and Tucci (2015) researched six financial ratios, one of which was the CCC, to compare performance efficiency between Wal-Mart and its competitors. Results indicated significantly better ratios for days in inventory, inventory-sales ratio, and CCC. Wal-Mart has a reputation for a negative CCC resulting from remarkable efficiency in

inventory management and accounts payable. A negative CCC for Wal-Mart is achieved by paying suppliers after the product is sold on Wal-Mart's shelf, which means Wal-Mart can use suppliers to finance inventory versus a traditional bank line of credit.

Companies that operate with efficient WCM models are usually leaders in the supply chain (Pirttilä, Virolainen, Lind, & Kärri, 2020). Pirttilä et al. (2020) examined WCM in the Russian automotive supply chain and discovered that longer accounts payable periods are prevalent to a longer CCC period. Boisjoly, Conine, and Mcdonald (2020) examined the impact of working capital practices on accounts receivable turnover, inventory turnover, and accounts payable turnover and found statistically significant evidence that suggest taking less risk on trade credit improved the CCC.

Free use of surplus cash originating in invisible credit (future operating cash flows) increases the financial distress of companies operating under a negative CCC (Szpulak, 2017). The relationship between a company's liquidity, measured by the length of the CCC, and its profitability, measured by return on capital, was analyzed with data from twelve Malawian manufacturing firms from 2007 to 2015 using a correlation and regression test. Profitability was used as the dependent variable and liquidity as the independent variable. Results indicated an inverse relationship between the CCC and the company's returns on investment and equity and further suggested that the CCC influences a firm's performance. Majanga (2015) suggested that a business must continually improve its liquidity position, especially the CCC, while monitoring its performance for sustainable profitability.

Das (2015a) researched the Fast-Moving Consumer Goods (FMCG) sector between the years 2002 and 2011 and discovered that external financing could be a solution for the payment of current liabilities while waiting for accounts receivable to be collected. Das suggested that having the proper CCC can minimize the requirement of external borrowings while holding excess cash signifies lower profitability, and often, excess cash can be more productive if used elsewhere.

Yuniningsih, Nugraheni, Lestari, Nurmawati, and Wajdi (2018) attempted to determine a company's ability to generate profit and measured the return of equity by using working capital variables. Using linear regression with profitability as the dependent variable and working capital as an independent variable in terms of CCC variables (inventory turnover and liquidity), Yuniningsih et al. suggested that the CCC variable has a significant effect on profitability.

Efficient WCM is positively associated with the number of analysts following a company and analyst forecast accuracy (Gao & Yang, 2017). They researched whether information about WCM was useful for financial analysts using Chinese firms in the manufacturing industry listed in the Shanghai and Shenzhen Stock Exchanges from 2004 to 2014. When the length of the CCC increases, the number of analysts who choose to follow the company decreases and the average analysts forecast becomes less accurate.

Lin, Horng, and Chou (2016) investigated how WCM impacts the profitability and performance companies located in China and Taiwan using quarterly data of 539 stocks listed on the stock exchange from 2008 to 2015. The CCC and the gap between days of payables outstanding and days of sales outstanding (PR Gap) was used to determine if

either variable had any significant impact on firm profitability. Wang-Tzu Lin et al. suggested the CCC exhibits a negative relationship with firm profitability while the PR Gap is positively correlated, and both variables have a significant effect on firm performance.

Dalci and Ozyapici (2018) attempted to explore whether financial leverage moderates the relationship between the working capital and profitability of European Hospitals. The results indicated that a longer CCC for hospitals with high financial leverage decreases profitability, while increasing the length of the CCC with low leverage increases profitability, suggesting that leverage can influence the relationship between CCC and profitability. Lyngstadaas and Berg (2016) studied whether WCM influences the profitability of small and medium-sized Norwegian firms using 21,075 Norwegian businesses from 2010 to 2013 and determined that reducing the CCC will increase profitability.

Richards and Laughlin (1980) studied static balance sheet liquidity ratios and determined that balance sheet liquidity ratios misrepresent a firm's liquidity position. One balance sheet ratio, such as the current ratio, tends to give a false indicator of a liquidity position because of the timing of cash inflows and cash outflows. Richards and Laughlin suggested the CCC gives a better indicator of liquidity because it considers the element of time. Using data from 2003 to 2012 within the Indian corporate sector encompassing industries such as chemicals, iron and steel, correlation analysis indicated profitability can be determined based on successful WCM (Shrivastava, Kumar, &

Kumar, 2017). Shrivastava et al. suggested that a longer CCC has a detrimental effect on profitability.

Wang (2017) studied the CCC as it relates to the working capital ratio of a firm. Wang suggested that the CCC has a positive correlation with the working capital ratio of a firm indicating that firms with a higher CCC fund their operations with more short-term debt. Wang indicated that firms with more short-term debt are more sensitive to a financial downturn.

Profitability

Mielcarz, Osiichuk, and Wnuczak (2018) examined the business cycle on WCM strategies from the Polish corporate sector and discovered that profitable companies tend to implement a more conservative WCM strategy during recessions. Research indicated that firms might enhance their profitability by optimizing their operating cash cycle by improving receivables collection, improving procedures for collecting bad debts, decreasing inventory investments, and extensively using trade credit from suppliers. Mielcarz et al. suggested that WCM can be a potential source of efficiency improvement and persistent competitive advantage.

Boțoc and Anton (2017) examined the relationship between working capital and firm profitability using 937 high growth firms from 2006 to 2015 and found a concave (or inverted U-shape) relationship between working capital level and profitability suggesting an optimal level of working capital (79% of sales) at which a firm's profitability is maximized. Botoc and Anton suggested that high growth firms should

find and maintain an optimal level of working capital that maximizes their profitability as managers have a fiduciary responsibility to maximize shareholder wealth.

The target level of working capital set by management could influence profitability which indicated that firms, especially SMEs, should attempt to set target levels for inventory, receivables, payables, and CCC to maximize profitability (Afrifa, 2015). Regression analysis demonstrated that the setting of inventory levels will help a firm to minimize the various costs of holding inventory, such as a warehouse, security, wear and tear, and theft. The setting of receivable levels can assist a company in avoiding overinvestment in customers because firms that overinvest in customers should search for external funds to finance the investment. The setting of payable levels can help firms to balance the costs and benefits of using suppliers' credit as a source of financing.

Aničić, Simić, Petrović, and Aničić (2017) suggested that management should provide an optimum level of the company's net current assets as the interrelation between current assets and short-term liabilities. A company with short term liabilities that are not proportionate to the current liquid assets faces potential insolvency. Aničić et al. demonstrated how efficient management of working capital contributes to profitability and lowers the risk of bankruptcy.

WCM significantly affects the profitability of Croatian software firms (Korent & Silvije, 2018). Two hypotheses were tested: (a) WCM has a significant positive impact on profitability, and (b) a significant concave relationship exists between WCM and probability. Results indicated that after controlling the impact of NWC on a company's

profitability, the relationship between NWC and a company's probability becomes inverted. NWC below an optimal level will lead to an increase in profitability in which NWC above an optimal level will lead to lower profitability. To maximize profitability, Korent and Silvije suggested managers should aim as close as possible to the optimal level of net working capital and avoid any deviation.

Singhania, Sharma, and Yagnesh Rohit (2014) examined the relationship between WCM strategies of firms and their profitability. The study consisted of interviewing managers of Indian manufacturing companies from the BSE 500 Index. Data gathered consisted of three sample periods: pre-recession (2005-2006), recession (2007-2008), and post-recession (2009-2010). After applying the Pearson correlation matrix and regression, results indicated that a reduction in the CCC of a firm leads to an increase in its profitability.

Enqvist, Graham, and Nikkinen (2011) examined the role of business cycles on working capital and profitability. The authors documented a negative relationship between CCC and corporate profitability. Companies were able to achieve higher profitability by managing inventories more efficiently and lowering accounts receivable collection times. Working capital and profitability relationship was more pronounced in economic downturns relative to economic booms suggesting active WCM is vital to the success of an organization and should be included in firms' financial planning.

Ukaegbu (2014) examined the relationship between working capital efficiency and corporate profitability (net operating profit) to determine their significance across countries with differential industrial levels. Using data from manufacturing firms in

Egypt, Kenya, Nigeria, and South Africa for the periods of 2005 to 2009 revealed a significant negative relationship between probability and the CCC, suggesting that when the CCC increases, the profitability of a firm declines.

The CCC influences profitability because the faster a company can sell its inventory and collect its receivables, the higher the profitability of the assets (Dorisz, 2014). By reducing the CCC, Dorisz (2014) suggested, a company can use internal sources of funding versus the need to rely on external financing, which has a higher cost of capital. Afeef, Takreem, and Baloch (2015) examined the effect of WCM based on profitability. The sample was from 2003 to 2008 of companies listed on the Karachi Stock Exchange and used multiple regression analysis to explore the effect of variables of WCM on profitability. Results indicated a significant relationship of operating profit to sales with all indicators of WCM having a positive effect on the profitability of firms.

Marttonen, Monto, and Kärri (2013) analyzed the impact of WCM of industrial maintenance service providers on profitability (return on investment [ROI]). Results showed that the ROI correlates negatively with the length of the cycle time of operational working capital (CCC), and any changes in the CCC have a more extensive impact on the ROI in large companies than smaller ones.

Nastiti, Atahau, and Supramono (2019) discussed the effect of WCM on a firm's profitability and sustainable growth. Using 136 manufacturing firms from the Indonesian Stock Exchange from 2010 to 2017, results indicated that working capital significantly affects firm's profitability but does not exhibit a direct influence on sustainable growth on

a firm's profitability. Nastiti et al. suggested that firms need to manage their working capital to increase profitability to achieve a point of sustainable growth.

Transition

The above commentary discussed the qualitative multiple case study, which will explore working capital with CFOs and their methods for reducing the CCC. This chapter included a literature review on resource dependence theory (the conceptual framework for the study), rival theories, working capital, current assets and current liabilities, and the CCC. The next section describes my role as a researcher and an expansion of the research method and design, as presented in Section 1. I elaborate on the population and sampling selected and data collection instruments and techniques along with the reliability and validity of the study. The next chapter offers insight into the instrumentation used for analyzing the results as well as the study's validity.

Section 2: The Project

Section 1 included information and support for the specific business problem I examined in this study. In Section 2, I provide an in-depth description of the research strategy I used. Section 2 begins with a restatement of the purpose of the study, followed by a description of my role as the researcher and brief commentary on the participants. Comprehensive explanations of the research method and the research design follow, along with a greater elaboration on the nature of the study. Section 2 concludes with explanations of the instruments and process I used to collect data, the data analysis method, and the reliability and validity of the instruments used.

Purpose Statement

My purpose in this qualitative multiple case study was to explore CCC strategies that business leaders use to support the necessary cash flow to reduce the risk of business failure. The targeted population sample included CFOs from three manufacturing companies in Tampa, Florida, who have developed strategies to manage cash. Each of the participating businesses has been in operation for more than 10 years, with annual revenues exceeding $25,000,000 in 2018. The findings from this study could provide other businesses with different strategies in managing working capital cycles that lead to long-term stability, which could offer a local community steady employment.

Role of the Researcher

The role of a qualitative researcher involves interacting and collaborating with participants to actively involve them in the research (Wang & Geale, 2015). The researcher's role also involves engaging participants to collect and analyze data (Palinkas

et al., 2015). My role as a qualitative researcher included recruiting potential participants and gathering and analyzing data collected from the selected CFOs from manufacturing companies located in Tampa, Florida.

Berger (2015) suggested that the researcher should have a relationship with the proposed research topic as it allows the researcher to better understand the participants' strategies. Because I have previous knowledge of the topic, I was motivated to continue building on existing research and understanding of the topic (Cannella & McFadyen, 2016). My professional experience as a commercial banker motivated me and helped me achieve a further understanding of the collected data. I have 12 years of work experience in banking, of which the past 4 years have been in commercial banking. I have observed businesses that do not have successful strategies for managing their CCC, and I am familiar with the research location because I live in Tarpon Springs, a suburb of Tampa, Florida.

The researcher must remain ethical in the data collection process (Akhavan, Ramezan, & Yazdi Moghaddam, 2013). The 1979 *Belmont Report* provides ethical guidelines to mitigating any form of bias during the interview process (U.S. Department of Health and Human Services, 1979). The three principles listed in the report include (a) respect, (b) beneficence, and (c) justice. Researchers use the *Belmont Report* to show respect for participants' suggestions and as a reminder to apply ethical research standards at all times (Akhavan et al., 2013). My ethical role was to follow the principles outlined in the *Belmont Report* when interviewing participants to protect their identities and to ensure each participant was treated equally.

To mitigate research bias, the researcher should not have any affiliation with the participants of a study (Wadams & Park, 2018). The researcher should not include their own viewpoints and should include only the viewpoints of the participants to ensure a better understanding of the research questions (Bell, 2010). Researchers should be aware of personal assumptions based on knowledge of the subject and eliminate the tendency to affect the research environment during the collection process. Researchers should be aware of personal assumptions and values that tend to affect the research during data collection and analysis (Gentles, Charles, Ploeg, & McKibbon, 2015). To avoid research biases, I did not engage participants who have affiliations with me, and I excluded personal viewpoints and assumptions in the data collection and analysis processes.

Because this is a qualitative research study, I used interview protocols for a structured interview process (Castillo-Montoya, 2016). The use of interview protocols can increase the quality of the data obtained from the research process (Castillo-Montoya, 2016). I followed the interview protocol (see Appendix A) to maintain consistency in data collection, avoid abnormalities from the study, and maintain an organized interview structure.

Participants

Establishing participant eligibility for data collection is crucial (Yin, 2016). Eligibility helps the researcher select participants who are knowledgeable about the research topic and can provide relevant conversations (Gentles et al., 2015). The eligibility criteria for the selection of participants in this study included (a) being a CFO from a manufacturing company located in Tampa, Florida, (b) having more than 10 years

of professional and industry experience (within manufacturing), and (c) being willing to participate in an audio-recorded interview. The eligibility criteria are listed in the survey questions (see Appendix B), which I had in front of me while emailing potential participants.

I used my professional network via LinkedIn to gain access to participants. A potential issue in calling companies to reach the CFO is a gatekeeper who typically answers the phone. Gatekeepers often act as buffers between the researcher and potential respondent, further restricting access (Nir, 2018). I used search filters on LinkedIn to find CFOs in the Tampa metropolitan area. Upon finding CFOs via LinkedIn, I was able to email them using the contact information displayed in their profiles. I emailed five CFOs and received one response with interest in participating in the study. After receiving interest from the CFO, I emailed a letter of invitation (see Appendix C) to the CFO to ensure agreement to participate in my doctoral study.

Researchers should establish a strong working relationship with participants to gain trust, confidentiality, and a smooth data collection process (Pinnegar & Quiles-Fernández, 2018). To establish a strong working relationship with a participant, I explained how the study could help business leaders maintain the necessary cash flow to reduce the risk of business failure. The findings could provide leaders with strategies that help mitigate charge-offs from uncollected accounts receivable as well as better inventory management. Society could benefit from the employment stability gained when CFOs improve their WCM because of my findings in this study.

Research Method and Design

My objective in this qualitative multiple case study was to explore CCC strategies that business leaders use to maintain the necessary cash flow to reduce the risk of business failure. To achieve this objective, I interviewed CFOs from manufacturing companies located in Tampa, Florida. The best approach for addressing my research question was a qualitative case study design. A qualitative research method and design aided me in understanding the specific business problem of my study (Yin, 2016).

Research Method

To understand the strategies that business leaders use to maintain the necessary cash flow to reduce the risk of business failure, I adopted a qualitative research method. Because I explored strategies versus analyzing independent variables, a qualitative method was appropriate for my study. Questions asked by researchers in a qualitative study are *how*, *what*, and *why*, which are open-ended questions designed to elicit an extended response and initiate the conversation (Moore & Tierney, 2019). Open-ended questions allowed me to produce comprehensive information that is difficult to measure, including interpretations, opinions, views, and experiences (Bristowe, Selman, & Murtagh, 2015). The qualitative method allows the researcher to collect verbal data from a few participants to uncover patterns and further understanding of the research topic (Roth, 2015).

I aimed to explore strategies rather than analyze variables. Quantitative research requires the use of independent and dependent variables and the use of hypotheses (Onen, 2016). Quantitative research allowed me to reject the use of a quantitative method

because my research involved interviewing multiple participants to collect data on their strategies on managing the CCC. The mixed method uses both qualitative and quantitative approaches (Guetterman, Creswell, Deutsch, & Gallo, 2019). A quantitative or mixed-methods research study would not have been prudent because I explored strategies that CFOs use to improve the CCC to reduce the risk of business failure.

Research Design

My objective in the research design was to help avoid the situation in which the evidence does not address the initial research questions (Yin, 2016). The multiple case study strategy is most appropriate for *how* and *why* questions (Yin, 2016). A qualitative case study design allows an in-depth understanding of new knowledge on a partially documented subject (Dahl, Larivière, & Corbière, 2017). A case study design allows the researcher to use a semistructured interview with participants who have a strong knowledge base on the research question at hand (Waddell & Pio, 2015). A qualitative multiple case study was the appropriate design for this study because I sought to explore the strategies of CFOs in manufacturing companies as they relate to the CCC, and the multiple case study strategy is most appropriate for *how* and *why* questions (Yin, 2016).

Other research design possibilities for a qualitative study are phenomenology, narrative, or ethnography. A phenomenology case study tends to focus on the participants' lived experiences and was not appropriate for this study (Kelak, Cheah, & Safii, 2018). Prins, Avraamidou, and Goedhart (2017) explained how, through a narrative design, researchers attempt to analyze stories told by the participants about a group or event, which is why a narrative design was not appropriate for this study. A

researcher uses ethnography to seek long-term involvement and commitment from the researcher to understand and intervene with the research question (Brooks & Alam, 2015). Because of the time requirement involved with an ethnographic study, it was not an appropriate design either.

The sample size in interviews that contain open-ended questions relies on the principle of data saturation, and the decision to stop data collection is solely dictated by the judgment and experience of the researcher (Tran, Porcher, Tran, & Ravaud, 2017). Determining the number of participants in a qualitative research study is difficult, as the researcher must assess the point of data saturation when no additional themes are uncovered. Tran et al. (2017) used a mathematical model to determine the point of data saturation in interviews using open-ended questions. The prediction was possible for sample sizes with fewer than 25 participants, but it was not accurate for qualitative studies with fewer than 25 participants, suggesting that data saturation and uncovering additional themes are in the hands of the researcher to govern the number of times to interview the participants.

Population and Sampling

The population for this qualitative multiple case study consisted of CFOs from manufacturing companies in Tampa, Florida, who have developed strategies to manage cash. The snowball sample included CFOs. A large sample size is not necessary to achieve balance and completeness (Shahgholian & Yousefi, 2015). To achieve data saturation for this study, I asked three participants the same interview questions and asked any follow-up questions to ensure that no new themes arose.

Data saturation is the flagship of validity in qualitative research, and researchers must describe how they have achieved it. In qualitative research, data are saturated when the topics or themes that derived from the dataset are repeated (Constantinou, Georgiou, & Perdikogianni, 2018). Data saturation depends on the topic, the objective of the research, participants, methods of data collection, and analysis (Tran et al., 2017). As the researcher, I used my judgment and experience as a researcher to determine when data saturation had occurred. I used snowball sampling for this study. This type of sampling has become popular in organizational research, especially for recruiting informant samples for multisource studies (Marcus, Weigelt, Hergert, Gurt, & Gelleri, 2017). Snowball sampling begins in research through network linkage, which participants recruit other participants for the study. Once the researcher has the figurative snowball rolling, it will continue to grow and stops when the target sample size has been attained (Heckathorn & Cameron, 2017). Snowball sampling helps the researcher find participants through other people who are connected to the research study.

I chose the first participant by sampling my professional network through LinkedIn. The criteria for selecting a participant was as follows: (a) being a CFO of a company in the manufacturing industry, (b) working for a company that has been in business for 10 years with most recent annual sales greater than $25,000,000, and (c) residing in the greater Tampa metropolitan area. I presented the potential participant with a four-question survey (see Appendix B), which I administered face to face. Once all participants agreed to an in-person interview, I invited them to participate in the research form (see Appendix C).

After all the participants returned their signed invitation to participate in research form, I emailed each participant the interview protocol (see Appendix A) and interview questions (see Appendix D). I conducted the interviews in the office of each CFO, so they were able to reference necessary data to answer all my questions accurately. Their office was the best location for the interview and ensured that all participants were best equipped to answer all questions from Appendix D. Each participant had 60 minutes to answer the interview questions.

Ethical Research

Following a strict protocol is the basis of ethical research. The Walden University Institutional Review Board (IRB) gave their approval for the study (Approval No.10-17-19-0288746). The ethics of research are outlined in the Belmont Report and include ethical principles relevant to participants whose responses are recorded by the researcher (Wessels & Visagie, 2017). After receiving IRB approval, the protocol began with the participant accepting an invitation to participate and being informed of the requirements for the research. Participants were supplied the invitation to participate in research form (see Appendix C).

The participant did not receive any incentives to participate in the study, but I informed them of the possible social change that could arise from the study. I sent the invitation by certified mail and emailed the invitation to each participant who was willing to participate in the study and met all criteria to participate based on their answers to the symposium survey questions (see Appendix B). I required each participant to sign the invitation along with me, the researcher, and I made participant aware of their right to

withdraw from the study at any time. A participant was able to withdraw from the study based on me receiving written notice by U.S. mail or by email. If I had received any written communication from a participant who wished to withdraw from the study, I would have immediately destroyed all notes and recordings of that participant.

In this study, I explored strategies that CFOs use to reduce their CCC. Once I had three participants who answered the symposium survey questions (see Appendix B) correctly and received a signed invitation to participate in research forms (see Appendix C), I explained the overall process of the study. We jointly agreed to a time for the interview. I provided the interview protocol (see Appendix A), a sample of the interview questions (see Appendix D) and a copy of my certificate from the Collaborative Institutional Training Initiative (see Appendix E).

The researcher should guarantee the privacy and confidentiality of each participant (Rudolph, Young, & Havens, 2017). I did not use their names on my research notes but instead a unique alpha coding system: PAR-A for participant 1, PAR-B for (participant 2) and PAR-C (participant 3). Also, all notes and recordings will be locked in a fireproof safe for a minimum of 5 years to protect the identities of the participants. Once 5 years have passed, the completion date of my study, the data will be destroyed.

Data Collection Instruments

I was the primary data collection instrument for this study, and I used face-to-face semistructured interviews. The researcher is the data collection instrument in a qualitative study in which an interviewer asks the respondents questions (Moser &

Korstjens, 2017). In qualitative research methods, researchers are allowed latitude on data collection to answer the research question (Phillippi & Lauderdale, 2018).

The three types of interviews that a qualitative researcher can use are (a) unstructured, (b) semistructured, and (c) structured (McTate & Leffler, 2016). Unstructured interviews are safer for research rigor, as the participant has more freedom to explain. Unstructured interviews are frequently used when the researcher lacks knowledge of the topic (Morse, 2015). Morse stated that with semistructured interviews, the pattern of the questions stems from the domain and type of information sought, and the researcher should probe to prevent validity from being threatened. Structured interviews are widely used in the employment process, but students often have little experience asking and responding to structured interview questions. Also, interviewers must be trained to conduct these types of interviews, which can help increase reliability and validity (Doll, 2017).

An outline of the protocols in this study is in Appendix A. The four sections outlined in Appendix A are (a) before the interview, (b) during the interview, (c) after the interview, and (d) after publication. Before the interview, each participant was provided an invitation to participate in the research. Each participant received an interview appointment and had an opportunity to ask any questions about the interview process. During the interview, I informed the participants that the interviews would be recorded via an iPhone 8S. Each participant was reminded of his or her voluntary participation and opportunity to withdraw at any time. All participants were reminded their participation was confidential, and all recordings and notes (high level detail of answers

to questions asked) would be secured in a locked safe at my residence. Passwords would be used to protect all data stored on electronic devices, and all data would be destroyed after 5 years.

After the conclusion of each interview, I began member checking (also known as participant or respondent validation), which is a technique for exploring the credibility of results (Birt, Scott, Cavers, Campbell, & Walter, 2016). Smith and McGannon (2018) stated that member checking is frequently used when conducting qualitative research. I emailed each participant a summary of their interview by the end of the day the interview was held. Each participant had 72 hours to review my summary of the interview, and I sent out an email reminder after 48 hours if a participant had not responded to the original email.

Data Collection Technique

My objective in this qualitative study was to explore the strategies of CFOs in manufacturing companies as they relate to the CCC. I used face-to-face semistructured interviews as the sole data collection technique for this study. I used a deductive approach and probed in an exploratory manner for strategies that deviate from the inter-organizational power relations that resource dependence theory emphasizes.

Face-to-face in-depth interviews are one of the most commonly used data collection methods in qualitative research (Morse, 2015). Face-to-face interviews should encourage the participants to speak freely, and as the interview evolves the subsequent major and subordinate questions should become more focused (Moser & Korstjens, 2017). Telephone interviews are considered a cost-effective method of collecting data

when time and travel constraints are an issue for the participants (Kerr, Lawrence, Middleton, Fitzsimmons, & Darbyshire, 2016). I used face-to-face semistructured interviews as the sole data collection technique for this study and participants did not receive any incentives to participate in the study, but I informed them of the possible social change that could arise from the study.

The approval of the Walden University IRB allows the qualitative researcher to recruit participants, conduct interviews, explore data, and research cannot commence without IRB approval. Upon receiving approval, I conducted semistructured face-to-face interviews while following the interview protocol with each selected participant (see Appendix A). I had three participants who answered the symposium survey questions correctly and received a signed invitation to participate in research forms, which provided me their contact information. I scheduled each interview at a time convenient for the participant and each interview was held at the participants place of business and required one hour to complete. Upon the completion of each interview, I asked the participant for company documentation that supported my study's research question. Documentation consisted of twelve months of accounts receivable and accounts payable aging schedules along with inventory reports (raw materials, work-in-process, and finished goods). The documentation received verified that the strategies implemented did reduced the CCC.

Recording qualitative interviews are encouraged to aid in any challenges of transcription. Moylan, Derr, and Lindhost (2013) suggested the use of digital technology such as a recording device for qualitative research to enhance the interview. Two-thirds of the population own smartphones and can aid researchers by recording conversations

during interviews (Do & Yamagata-Lynch, 2017). A smartphone eliminates the need for the researcher to acquire specific equipment for the interview and can increase participant responses because of the familiarity of the device. The benefit of using a cell phone for recording the data is that it can be uploaded to a computer by Bluetooth or USB drive for data analysis (Matlala & Matlala, 2018). García, Welford, and Smith (2016) used a smartphone for qualitative research in the UK because 60% of the population owned a smartphone and cited the ease of use for the researcher was a contributing factor in the decision-making process. I used an iPhone 8S to record each interview because of the familiarity of the device with the participants and the ability to load the interview to my computer using a USB drive. I would recommend the use of an iPhone for the recording of interviews to other researchers because of the ease of using the device.

After transcribing each interview, I uploaded data to NVivo 12 qualitative data analysis software to my computer and paraphrased the interview and emailed a summary to each participant to confirm my understanding of their thoughts, which is known as member checking (Birt et al., 2016). Each participant had 72 hours to review my summary of the interview and I sent out an email reminder after 48 hours if a participant had not responded to the original email. Each participant responded to my summary of the interview within 48 hours, therefore I did not have to send out an email reminder. Member checking is often mentioned as one in a list of validation techniques that researchers should use to improve accuracy, credibility, and validity of the study (Harvey, 2014).

Data Organization Technique

I used an Apple pen to transcribe all data collected. Using a Smart Pen allowed for the notes to be directed into an iPad and allowed me to transfer them to my computer automatically. The advantage of using a Smart Pen is it makes cataloguing and labeling each interview easier (Wold, 2013). I did not use names of participants in research notes but instead a unique alpha coding system: PAR-A for participant 1, PAR-B for (participant 2) and PAR-C (participant 3). The reason for using pseudonyms is to hide the identity of the participants during the data collection (Cleary, Horsfall, & Hayter, 2014). Yin (2016) suggested that using an alpha coding system reinforces to participants during the interview that their responses are protected.

Before data analysis can begin, data need to be organized (Houghton, Casey, Shaw, & Murphy, 2013). Data were organized in three folders, one for each participant in the study. The folders were labeled with the appropriate pseudonym for each participant to protect their identities. All data and recordings will be locked in a fireproof safe for a minimum of 5 years to protect the identities of the participants. Five years after the completion date of my study, the data will be destroyed by shredding any paper materials and deleting any electronic files.

Data Analysis

I used Thematic Analysis (TA) and data triangulation to study the data for this study. TA is a method of identifying, analyzing, and reporting patterns (themes) within data (Castleberry & Nolen, 2018). I decreased research bias by using triangulation and member checking (Welch & Piekkari, 2017). TA is an organized process consisting of

four stages: initialization stage, construction stage, rectification stage, and finalization stage (Vaismoradi, Jones, Turunen, & Snelgrove, 2016). Resource dependence theory, which firms use to reduce uncertainty and manage dependence was the framework for data analysis.

The initialization stage consists of the researcher analyzing transcriptions and beginning the coding process. The construction stage consists of the researcher identifying themes and topics and attempting to describe them. The rectification stage consists of the researcher sharing the identified themes to establish knowledge, and the finalization stage consists of the researcher discussing the findings. To achieve data triangulation, I used company internal documentation to decrease researcher bias, increase credibility, and produce more accurate results. Gaining access to internal documentation (AR, AP, and Inventory Reports) was provided by each CFO because it does not provide details on revenue or the net income of the company. Reviewing audited financial statements would have required a signed non-disclosure agreement and prevented the findings of this study from being shared.

Triangulation helps limit any personal biases during the coding process and allows the dominant findings to emerge (Mazerolle & Eason, 2018). A participant's and researcher's bias are present in all research both intentionally and unintentionally, which is why triangulation in qualitative research is important (Stavros & Westberg, 2009). I interviewed participants at their place of business with each interview lasting around an hour, and recorded the interviews using an iPhone 8S. I provided member checking upon completion of the interviews to ensure I achieved triangulation. Each participant was

assigned a unique alpha coding identifier: as PAR-A for participant 1, PAR-B for (participant 2) and PAR-C (participant 3) to ensure their identity is preserved. Data analysis involved transcription of the recorded interviews, which was achieved by using an iPhone 8S to record each interview and the use of an Apple pen to transcribe all data collected.

I used NVivo 12 qualitative data analysis software to study the data from the interviews. NVivo offers functions for creating text files and for transcribing audio and video files, making it possible for researchers to create field notes, interview notes, reflective journal entries, and interview transcripts within the software (Friese, 2014). Woods, Paulus, Atkins, and Macklin (2016) suggested that of the doctoral studies reviewed, 99.6% reported using NVivo for data analysis and data management. Researchers reported using NVivo to retrieve and review the data in various ways, such as to create themes and describe findings (Woods et al., 2016). I studied the data by using NVivo software to identify and track themes. I coded key themes from the interview transcripts into NVivo software, which allowed me to query for words and phrases.

Reliability and Validity

Reliability

Reliability refers to the exact replicability of the processes and the results (Leung, 2015). Reliability in qualitative research is rooted in the idea of data adequacy, which makes it possible to show consistent support for one's analysis across participants (Morse, 2015). Dependability refers to the consistency and reliability of the research

findings and the degree to which the research procedures are documented (Moon, Brewer, Januchowski-Hartley, Adams, & Blackman, 2016). The most commonly reported criteria of dependability are the number of participants, population description, data collection methods, and triangulation (Moon et al., 2016). I used a semistructured interview protocol to help achieve reliability and validity.

Dependability can be addressed in a qualitative study by the researcher performing member checking for the data interpretation. Member checking is a collaborative effort between the researcher and the participants, which increases the rigor of the study (Glaw, Inder, Kable, & Hazelton, 2017). Member checking is known as participant or respondent validation, which is a technique for exploring the credibility of results (Birt et al., 2016). Member checking can cover a range of activities, including returning the notes taken during the interview to the participants for review. Member checking can be thought of as respondent validation and increases the trustworthiness of the study. I performed member checking within 48 hours of each interview.

Validity

Validity means the results reflect the phenomena being studied (Bengtsson, 2016). To increase the credibility of the study (to ensure no relevant data has been excluded), I used triangulation. Triangulation can aid the researcher by increasing the study's rigor and thus the depth of the findings (Varpio, Ajjawi, Monrouxe, O'Brien, & Rees, 2016). Also, triangulation can enhance the reliability and data saturation of the study (Fusch, Fusch, & Ness, 2018). Another way of establishing credibility in a study is the use of participant transcript review. Participant transcript review allows researchers to provide

the transcription of the interview to the participants to review and annotate (Davey, Lasserson, Levi, & Magin, 2017). I performed member checking after each interview. Therefore, participant transcript review was not necessary.

Transferability refers to the degree to which the findings from one study may apply to another study (Bengtsson, 2016). Demonstrating transferability in a qualitative study may be difficult because the focus in depth is based on small samples. The researcher can establish transferability by providing enough evidence that the results can be generalized or transferred to other contexts or settings (Forero et al., 2018). Transferability within qualitative research focuses on a detailed description of the participants being interviewed, transparent analysis, and a summary that resonates with readers (Connelly, 2016).

Confirmability means the results of the study can be replicated (Moon et al., 2016). A technique used by many researchers to establish confirmability is the use of an audit trail. An audit trail consists of notes that establish a connection between the findings and the original data so that another researcher could reproduce the same analysis (Scharp & Sanders, 2019). I maintained an audit trail of my research to ensure confirmability. My audit trail consisted of examples of the coding process and how I worked individual codes to themes along with the rationale for clustering codes together to form a basis of a theme.

Data saturation involves the collection of data and analysis to the point when additional input from new participants no longer changes the researcher's understanding of the topic (Tran et al., 2017). Researchers find it difficult to assess the point of data

saturation, that is, to estimate the "true" number of themes about a given topic (Tran et al., 2017). Hancock, Amankwaa, Revell, and Mueller (2016) suggested that data saturation is necessary to promote transparency in qualitative research. I interviewed three CFOs from manufacturing companies who have proven strategies for improving the CCC.

Transition and Summary

The above commentary discussed the project with a recap of the purpose statement, the role of the researcher, participants, research method, research design, population and sampling, ethical research, data collection instruments, data collection technique, data organization techniques, data analysis, and finally, reliability and validity. The intent of this qualitative multiple case study was to explore cash conversion strategies that business leaders use to support the necessary cash flow to reduce the risk of business failure. I conducted a qualitative multiple case study whereby I asked three participants questions centered around the research question of what cash conversion strategies business leaders use to support the cash flow necessary to reduce the risk of business failure.

Section 3 comprises the findings of the study, the application to professional practice, and the implications for social change, suggests recommendations for action and further research, and offers a reflection and a conclusion. This section provides detailed information describing the strategies CFOs use to manage their CCC. I interpret the findings, which highlight the transferability of the applications for professional practice. Section 3 ends with the presentation of the findings and their impact on social change.

Section 3: Application to Professional Practice and Implications for Change

Introduction

My objective in this qualitative multiple case study was to explore CCC strategies that business leaders use to support the necessary cash flow to reduce the risk of business failure. Section 3 includes the presentation of the findings, the application to professional practice, and the implications for social change. I discuss recommendations for actions for CFOs and recommendations for further research. I conclude with an overview of addressing the importance of the CCC and effective strategies for reducing business failure.

Presentation of the Findings

The overarching research question for this doctoral study was: What CCC strategies do business leaders use to support the cash flow necessary to reduce the risk of business failure? I conducted three interviews to gather the data for this project and answer the research question. Using my interview protocol, I asked each participant six questions:

1. What strategies do you employ to reduce your accounts receivable days?
2. How do you maintain your inventory at an optimal level?
3. What strategies do you employ to extend your accounts payable days?
4. How do you ensure your customers pay within the trade credit terms you have provided?
5. How do you obtain favorable payment terms from your suppliers/vendors?

6. What additional information would you like to share about the cash conversion cycle?

After completing the interviews, I conducted a member check, then studied the data collected using NVivo 12 qualitative data analysis software. From my analyses, I developed themes that supported my theoretical framework (see Table 1). The themes were (a) incentives to pay early, (b) financial metrics, (c) creditworthiness, and (d) relationships. I labeled the transcriptions as PAR-A through PAR-C (which PAR-A means participant 1). My conceptual framework was the resource dependence theory, which firms use to reduce uncertainty and manage dependence by purposely establishing formal or semiformal relationships with other firms (Ulrich & Barney, 1984). I completed data triangulation when I reviewed company documentation that supported the study's research question. Documentation consisted of accounts receivable and accounts payable aging schedules, along with inventory reports (e.g., raw materials, work-in-process, and finished goods). Documentation was provided by each CFO as accounts receivable schedules, accounts payable schedules, and inventory reports does not provide details on revenue or the net income of the company. Reviewing audited financial statements would have required a signed nondisclosure agreement and prevented the findings of this study from being shared. Table 1 summarizes the participants responses into four themes: incentives to pay early, financial metrics, credit worthiness, and relationships.

Table 1

Participants' Responses that Support Themes

Participants	Incentives to pay early	Financial metrics	Credit worthiness	Relationships
PAR-A	Offer early payment options	Establish internal financial metrics for inventory	Credit check	Establish good relationships
PAR-B	Discount if payment received early	Run financial metrics to determine ideal level of inventory	Credit check before doing business	Use relationship
PAR-C	Offer incentives to pay early	Financial metrics vs. industry standards	Credit worthiness	Relationship

Incentives to Pay Early

The participants in this study focused on reducing accounts receivable days by offering financial incentives to pay early. PAR-A stated, "Allowing your customers to pay an invoice early and being rewarded with a discount is a quick and easy way of collecting a receivable faster; granted, the customer must have the financial ability to take advantage of the offer." PAR-B stated, "If cash flow is light, we will make phone calls to our customers and offer them a discount to pay today and today only, which will improve your accounts receivable turnover." PAR-C stated, "We offer our customers incentives to pay early and will send out gentle reminders of their payment due date to encourage

early payment." Irungu, Kibuine and Muhoho (2019) determined that during the past 2 decades, small and medium-sized enterprises embraced invoice discounting as a useful source of working capital to bridge the gap between when they sell and collect payment from customers. All participants agreed that offering a financial incentive to pay early, such as 2/10 net 30 discount, reduces gross margins and profitability. Each participant mentioned that if the company has enough cash on deposit, then offering financial incentives to pay early are not necessary. PAR-A, PAR-B, and PAR-C shared the documentation of accounts receivable aging schedules to triangulate the research.

Financial Metrics

The participants each stated that creating financial metrics and using industry standards published by the Risk Management Association leads to an optimal level of inventory. PAR-A stated, "Establishing financial ratios and metrics for inventory can help achieve an optimal level." PAR-B stated, "Running financial metrics to determine and maximize cash and profits for an ideal level of inventory is imperative." PAR-C stated, "Setting financial metrics and using industry standards as a guide can help achieve an optimal level of working capital." According to Afrifa (2015), a target level of working capital set by management could influence profitability, which includes a target level for inventory to minimize the various costs of holding inventory, such as warehouse fees, security, wear and tear, and theft. Shin and Tucci (2015) researched six financial ratios, one of which was the CCC, to compare performance efficiency between Wal-Mart and its competitors. Results indicated significantly better ratios for days in inventory, inventory-sales ratio, and CCC, alluding to the importance of having an optimal level of

inventory. PAR-A, PAR-B, and PAR-C shared the documentation of inventory turnover reports, which include raw materials, work in process, and finished goods to triangulate the research.

Credit Worthiness

The participants each stated that performing a credit check on a potential customer helps alleviate receiving payments beyond the designated credit terms provided. PAR-A stated, "Running a credit check on your potential customer is always a good practice. We only bring on customers that pass our credit check." PAR-B noted, "We never take on questionable customers; we want to make sure our customers have the wherewithal to pay for our product." PAR-C confirmed, "You want to make sure your potential client is creditworthy; if you feel there is a potential for late payments, then you should collect a deposit on purchase orders."

Adusei (2017) noted that when a company sells on credit, the risk of not collecting the receivable can significantly increase bad debt. Adusei determined that 61.3% of the time, an account receivable becoming uncollectable could be avoided using proper evaluation for issuing credit. Martínez, García, and Martínez (2013) suggested investing in accounts receivable also has costs as granting trade credit exposes the firm to financial risks. Boden and Paul (2014) stated that the high volume of sales on credit between businesses is considered by many as the riskiest asset in a firm's balance sheet and should always be monitored. Each participant agreed that performing a credit check before establishing trade credit terms with a potential customer is a good practice. PAR-A, PAR-B, and PAR-C shared the documentation of accounts receivable aging schedules

and bank reference templates that are sent to potential customers' banking institutions for a credit reference to triangulate the research.

Relationships

The participants each stated that establishing relationships and trust with vendors and suppliers can lead to obtaining favorable payment terms. PAR-A stated,

> Having great relationships with your vendors can allow favorable payment terms. It is crucial to invite your vendors to your place of business and give them a tour and explain any cash flow cycles or seasonality. You want them to become comfortable with your business processes.

PAR-B stated, "Relationships with your vendors can play a role in favorable payment terms, not consistently, but can help." PAR-C stated, "A good standing relationship with your vendor will help establish favorable payment terms coupled with ordering larger orders than most."

The relationship was a theme that was not apparent in my literature review. Most researchers included discussion of the importance of collecting accounts receivable faster, turning inventory quicker, and delaying payment to your vendors to have the most efficient CCC. Previous researchers had several suggestions on how to accomplish the items as mentioned earlier but did not discuss the "relationship" aspect of the business. Each participant mentioned that relationships, which take time to create, allowed a more flexible payment schedule with their vendors. PAR-A, PAR-B, and PAR-C shared the documentation of accounts payable aging schedules and copies of emails to vendors asking for extra days on the payment of specific invoices to triangulate the research.

Applications to Professional Practice

My objective for this qualitative case study was to explore CCC strategies that business leaders use to support the necessary cash flow to reduce the risk of business failure. The participants included three CFOs who have successfully used CCC strategies to manage cash. Mohanraj (2016) stated that there is a significant relationship between the CCC and profitability of the firms: by reducing the CCC, a firm's profitability can be increased. Sabki, Woei-Chyuan, and Regupathi (2019) suggested that small to medium enterprises with access to bank financing have lower CCCs as compared to those who do not have lines of credit established with banks. This is because a bank loan acts as a credit indicator to a supplier leading to a longer payable period granted by the supplier, hence, a shorter CCC.

CFOs can use the information from this study to understand the importance of the CCC. Focusing on reducing the CCC will reduce the risk of business failure and allow CFOs to better weather economic downturns. The CCC is a useful measure of working capital by adding the element of time and leads to a more thorough analysis of a company's liquidity. I have identified strategies for CFOs to implement to reduce the CCC and lead to a stable and more profitable business. Ukaegbu (2014) examined the relationship between working capital efficiency and corporate profitability and determined a significant negative relationship between profitability and the CCC, suggesting that when the CCC increases, the profitability of a firm declines.

According to the U.S. Bureau of Labor Statistics (2018), private companies represent 84.8% of the total employment of the U.S. workforce. Research has

demonstrated that reducing the CCC will increase profitability. CFOs can implement the strategies I examined in this study to create better employment stability and reduce the need for employee layoffs during economic downturns.

The phrase "jobless recovery" became popular in the United States during the 2000 recession, when it took seven straight quarters of gross domestic product growth to result in decreases in the unemployment rate (DeNicco & Laincz, 2018). However, the last economic downturn occurred in late 2008 (Bernanke, 2018). Cagle et al. (2103) stated the CCC is the most important measure of liquidity as it is a measure of "nearness to cash." CFOs in manufacturing industries need to look more closely at the CCC as it is a better indicator of liquidity, can lead to more profitability, and can allow a company to better weather economic turmoil.

Implications for Social Change

Positive social change occurs when members of a society change their behavior for the betterment of society (Banks, et al., 2016). Stephan, Patterson, Kelly, and Mair (2016) defined positive social change as the process of transforming patterns of thought, behavior, social relationships, institutions, and social structure to generate beneficial outcomes for individuals, organizations, communities, and society. This study supplements the existing body of knowledge to develop strategies that manage the CCC. CFOs might use the information from the findings of this study to gain insight into CCC and WCM. Strategies to reduce the CCC bring added benefits of positive social change.

CFOs must change their behavior in managing the CCC, which might require being selective in choosing new customers or requiring deposits on purchase orders to

ensure financial wherewithal. Also, as C-suite executives, it is their fiduciary responsibility to ensure the success and longevity of the business. A thriving company that can survive economic downturns might reduce the risk of business failure and maintain employment stability, benefiting the community in which it is located.

Recommendations for Action

I recommend CFOs implement strategies to reduce their CCC. Using the identified themes will provide CFOs an opportunity to reduce their working capital requirements, which in turn will help them financially survive economic downturns. Reducing their collection time for accounts receivable can be accomplished by offering their customers incentives to pay invoices early. While these incentives usually require offering a minor discount off the invoice, such as 2/10 net 30, they can improve the timing of collecting a receivable up to 20 days earlier. Establishing customer financial wherewithal is equally as crucial. If a potential client cannot pass a bank reference or credit check, that client will not be permitted to take advantage of a trade discount, which would elongate accounts receivable days.

The optimal level of inventory will help a company maintain a competitive inventory turnover compared to industry standards and will require financial metrics to be established, maintained, and monitored. While many financial metrics are important in measuring a company's success, relationships with suppliers are equally necessary. If there is no financial incentive to pay an invoice early, paying on the due date is adequate as it allows cash to stay in the business, which can help cover expenses such as payroll. However, if cash flow becomes suppressed, a healthy and trusting relationship with

suppliers can allow extra time to pay invoices without jeopardizing the relationship or signaling an alarm that the company is in financial distress. A company's ability to manage their CCC is vital because a shorter working capital cycle can reduce the risk of bankruptcy. CFOs should use this study to reduce their collection time for accounts receivable, maintain their inventory at an optimal level, and extend their accounts payable without jeopardizing their relationships with vendors.

Recommendations for Further Research

Delimitations are research constraints that are within the researcher's control and can lead to the efficient management of the study (Marshall & Rossman, 2016). In this study, I focused on one geographical area, which was Tampa, Florida. The results of this study could have varied if another geographical area had been used. Another delimitation was the specific industry of manufacturing. One question in the symposium survey required the participant to be a CFO within the manufacturing industry. The CCC is a financial metric calculated by using accounts receivable, inventory, and accounts payable. While other industries outside of manufacturing can have inventory, it was a delimitation set by the design of my case study. The last delimitation to this case study was the financial size and tenor of the company where the CFO worked. This study required the company to have been in business for at least 10 years, with most recent annual sales of $25,000,000.

There are appropriate grounds for further research. As the CCC is a continually changing financial metric, it is important to benchmark a company to the industry standard. Future researchers should continue to focus on strategies leaders use to manage

the CCC to reduce the risk of business failure. In this study, I addressed strategies for managing cash within the manufacturing industry, and it would be prudent for other researchers to look at other industries and strategies used to manage the working capital cycle. Further research may include whether the CCC is vital in other industries or different life cycle stages of a business.

Reflections

The process of interviewing the participants for this study was a rewarding experience. Each participant was eager to schedule the interview and looked forward to meeting with me. Each participant was relaxed during the interview and answered all the interview questions. The participants were engaged during the interviews and appeared passionate about sharing their experience relating to working capital and the CCC. Upon each interview, I followed up with a thank you email and provided an opportunity for member checking.

As a commercial banker, I had to be careful to avoid any biases about the CCC. I carefully constructed the questions that I asked during interviews to avoid leading the participant to an answer. No participant had a personal or professional connection to me, which was necessary to exclude personal viewpoints and assumptions in the data collection and analysis process. I did not begin any data analysis until all interviews were completed to avoid any assumptions based on early interviews.

Conclusion

The findings from this case study revealed that CFOs in manufacturing industries can reduce their CCC by focusing on the following: offering incentives to the customer to

pay early, establishing financial metrics to optimize the right amount of inventory, performing due diligence on new customers through credit checks, and establishing good relationships with suppliers to obtain favorable payment terms.

The first variable in the CCC is accounts receivable days; specifically, how many days it takes a company to collect payment from its customers. The findings from this study revealed that offering incentives to your customers to pay early and establishing credit checks on new customers are strategies to reduce the number of days receivables are outstanding. The second variable in the CCC is inventory turnover; specifically, how many days it takes a company to turn its inventory. The findings suggested that CFOs should be able to create financial metrics on inventory, which would lead to an optimal level of inventory. The optimal level of inventory would keep the number of days it takes to turn inventory at an industry standard. The last variable in the CCC is accounts payable days; specifically, how many days it takes for a company to pay their suppliers. While the supplier might offer an incentive to pay early, establishing good relationships and being transparent about business and cash flow can allow a business to obtain favorable payment terms.

The CCC is a financial measurement of a company's efficiency in managing working capital. A lower CCC represents a reduced working capital requirement and can help a company avoid using a line of credit to fund working capital. Avoiding paying interest and managing CCC allows a company to self-fund their working capital, which leads to higher profits and will help CFOs better manage economic downturns.

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Appendix A: Interview Protocol

Strategies that business leaders use to support the cash flow necessary to reduce the risk of business failure?

The following information constitutes the interview protocol for this doctoral study. The objective of an interview protocol is to provide a step-by-step guide of the interview process.

- Before the interview, the researcher will:
  - provide each participant with a signed copy of the Invitation to Participate in Research form, the interview protocol, and a list of the interview questions;
  - confirm with each participant they have read and understand each document;
  - schedule date, time, and place for the interview with the participant;
  - answer any preliminary questions from the participants.
- During the interview, the researcher will:
  - inform each participant that the interview will be recorded;
  - remind the participants that their participation is voluntary;
  - remind the participants that they have the option of withdrawing at any time;
  - advise each participant that the researcher will take notes in a journal in addition to recording the session;
  - remind each participant that they will be anonymous;

  - address any concerns regarding the interview questions;
  - ask each participant the interview questions that were provided to them in advance.
- After the interview, the researcher will:
  - thank each participant for taking part in the interview;
  - transcribe the data to determine if a second interview is necessary;
  - ensure that each participant will participate in transcript review;
  - engage the participant in the member checking technique to ensure accurate documentation and reflection of their interview responses;
  - schedule a second interview for follow-up (if necessary);
  - receive affirmation from participant regarding accuracy of the transcription and accuracy of data interpretation (via e-mail or telephone);
  - convert all paper documents to digital format;
  - save all files to a thumb drive and lock in a safe for 5 years.
- After publication, the researcher will:
  - send each participant a summary of the findings;
  - advise each participant of the publication date;
  - destroy all data after 5 years.

Appendix B: Symposium Survey Questions

The four questions that will be asked at the symposia are as follows:

1. Are you a chief financial officer or controller of a company in the manufacturing industry?
2. Has the company been in business for 10 years with most recent annual sales greater than $25,000,000?
3. Is the company located in the greater Tampa metropolitan area?
4. Would you mind taking part in a study that would document the cash conversion cycle strategies you use to support the necessary cash flow to avoid business failure?

Appendix C: Invitation to Participate in Research Form

I invite you to take part in a research study on "Strategies that business leaders use to support the cash flow necessary to reduce the risk of business failure." The researcher is inviting three chief financial officers or controllers who have proven strategies to improve the CCC that improve cash flow to avoid business failure. The interviews will be used solely for the objective of the study. This form is a part of the process called "informed consent," which allows you to understand the nature of the study before deciding whether to participate.

Please see a few of the interview questions below:

1. What strategies do you employ to reduce your accounts receivable days?
2. How do you maintain your inventory at an optimal level?
3. What strategies do you employ to extend your accounts payable days?

All interview questions will be provided to you before the interview takes place.

Background Information

The researcher for this study is Brian Savino, a doctoral student at Walden University. He has more than 12 years of work experience in banking, of which the past four years have been in commercial banking.

The objective of this study is to explore cash conversion strategies that business leaders use to support the necessary cash flow to avoid business failure.

Procedures

If you agree to be in the study, I will ask you to:

- Participate in a one-hour face-to-face interview with the researcher, so you can respond to questions that relate to your knowledge of strategies to support the cash flow necessary to reduce the risk of business failure.
- Participate in member checking by reviewing your responses for accuracy after I restate the transcripts in my own words. Member checking will require an additional 30 minutes of your time.
- Confirm interviews can take place at your official place of business or another formal environment agreed on by both you and the researcher.

Voluntary Nature of the Study

This study is voluntary. Everyone will respect your decision whether or not you choose to participate in the study. No one will consider you differently if you decide not to participate in the study. If you decide to join the study now, you will have the option of changing your mind and leaving the study anytime.

Risks and Benefits of Being in the Study

Being in this study involves some risk of minor discomforts – such as stress, fatigue, or even feelings of apprehension in providing answers to some of the questions but will not pose a risk to your safety or well-being. While there is not a direct benefit to the participant, the findings from this study could improve employment stability when companies improve their working capital management.

Payment

You will not receive any payment for participating in the study

Privacy

If you decide to participate, I will not share the details of your identity or location in the study. As the researcher, I will use all information imparted during face-to-face contact for the sole objective of completing the study. To maintain information security and anonymity of participants, the researcher will store all data collected for the study in a locked safe at his official place of residence and use encryption, passwords, and codes to protect all data stored on electronic devices. As a requirement of the university, the researcher will destroy all data collected and used during the study after five years.

Contacts and Questions

You may ask any questions you have now. Or, if you have questions later, you may contact Brian Savino at brian.savino@waldenu.edu. If you would like to talk privately about your rights as a participant, you can call the Researcher Participant Advocate at Walden University at 612-312-1210. Walden University's approval number for this study is 10-17-19-0288746, and it expires on October 16th, 2020. The researcher will give you a copy of this form for your files.

Obtaining Your Consent

If you feel you understand the study sufficiently to make a decision about it, please indicate your consent by replying to the email which contained this consent form with "I consent."

Researcher's Signature _____

Appendix D: Interview Questions

1. What strategies do you employ to reduce your accounts receivable days?
2. How do you maintain your inventory at an optimal level?
3. What strategies do you employ to extend your accounts payable days?
4. How do you ensure your customers pay within the trade credit terms you have provided?
5. How do you obtain favorable payment terms from your suppliers/vendors?
6. What additional information would you like to share about the cash conversion cycle?

Appendix E: Protecting Human Subject Research Participants

Completion Date 06-Aug-2019
Expiration Date N/A
Record ID 32690957

This is to certify that:

Brian Savino

Has completed the following CITI Program course:

Student Researchers (Curriculum Group)
Student Researchers (Course Learner Group)
1 - Basic Course (Stage)

Under requirements set by:

Walden University

CITI
Collaborative Institutional Training Initiative