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STUDIES IN THE DEVELOPMENT OF ACCOUNTING
THOUGHT VOLUME 26

**CORPORATE REPORTING:
FROM STEWARDSHIP
TO CONTRACT, THE
ANNUAL REPORTS OF THE
UNITED STATES STEEL
CORPORATION 1902–2006**

EDITED BY

GARY J. PREVITS

Case Western Reserve University, USA

AUTHORED BY

**KEVIN CHRISTOPHER CARDUFF, PH.D.
(1971–2018)**

Case Western Reserve University, USA



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INVESTOR IN PEOPLE

This dissertation is dedicated to my family and friends who have supported me through the experience, but especially my father, Joseph (rest in peace), and my mother, Eileen, who provided me with every opportunity a son could desire.

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SERIES EDITOR'S PREFACE

Kevin Christopher Carduff, (1971–2018), the author of this research, was educated at Case Western Reserve University (CWRU) receiving a doctorate with a major field in Accountancy in 2010. He taught at CWRU and two other institutions prior to passing away in April 2018 after an extended illness. His undergraduate and graduate work at the master's level was also at CWRU, where he served on the staff as an Assistant Dean. While at the university he began work on his doctoral coursework. During a visit of Professor Richard Vangermeersch, a scholar who had been extensively involved in studies of U.S. Steel, Carduff undertook an early digitizing activity involving the annual reports of the United States Steel Company for which he had achieved a substantially complete collection. He was a pioneer in the use of digital data.

The digitization of these reports facilitated searching the content for patterns and quantities of information. A previous CWRU study during the 1990s for the American Institute of CPA's (AICPA) Jenkins Committee employed content analysis of sell side financial analyst reports.

His thesis focused upon gathering and interpreting information regarding the role of its financial reports at a time when US Steel attained an iconic leadership role, from its formation and first report at the start of the twentieth century through that centurial era. Using content analysis, Carduff's work examines the fiduciary communication perspective of the company's management, reflecting an awareness of the right of shareholders to information about the performance and status of their invested property.

As the century progressed, the societal constructions of disclosure changed, and the annual report to shareholders of large publicly held companies became increasingly influenced by the disclosure requirements of the 1930s Securities Acts. By the 1960s, "Footnote #1" of reports was a required narrative to describe all significant accounting policies. Thereafter common financial packages were dictated as between the management report to shareholders, and regulatory filings with the Securities and Exchange Commission. By the 1990s the format and content of many large corporation reports, reflecting expectations of institutional investors, were again overtaken, resulting the so-called "10-K wrap-around" form of annual corporate report. Carduff exams the meaning and differentiation between the former, "trust/fiduciary" approach and the latter "contract/regulatory" model at US Steel.

As his physical health declined, he was unable to share the abundance of his work through the normal process of published papers. This book provides the structure and results so that other historians and scholars interested in this transformative period may benefit from the findings.

Appreciation is extended to Dr Carduff's two sisters and brother who provided the necessary approvals for this volume.

Gary John Previts
February 12, 2022

PREFACE

Kevin and I first met in Cleveland at Case Western in 2005. I was there to meet with Gary Previts and Oktay Guvemli of Marmara University in Istanbul to discuss the 12th World Congress of Accounting Historians in 2008 in Istanbul. Gary asked me to speak with Kevin, as he was planning to study the annual reports of US Steel for his dissertation.

Since, based on my dissertation in an institutional study of the annual reports of US Steel, I was glad to talk with Kevin. We had nice conversation and I agreed to donate my collection of US Steel annual reports from 1902 to 2004 to Case Western, along with all my other books and notes on US Steel. I kept in touch with Kevin through the years and greatly appreciated his acknowledgment to me in his 2010 dissertation.

Kevin left us way too early. Gary and I both wish Kevin were here to write his own introduction but fate denied this.

Accounting has long been a field of knowledge. As such, scholarship in accounting is the same as in all fields of knowledge. There is a continual addition to the field of accounting scholarship. Kevin's addition to the field of knowledge of accounting is the use of content analysis to give a new perspective on US Steel. He does a very good job of explaining these tools to study the content, display, and tone of the US Steel annual reports. Kevin also does a fine job in summarizing the history of US Steel. The reader is well prepared to grasp key accounting issues through the years.

Kevin's key finding is that the US Steel annual report, like most annual reports of similar organization, "... has also changed dramatically, from a communication from managers to shareholders – reflecting a stewardship model – to a generic regulatory based form of government mandated disclosure in Form 10-K, abiding by a legal or contractual view" (p. 116). While I understand the legal dangers in the more conventional stewardship viewpoint, I still bemoan this change in corporate communication. I believe Kevin would have led a broad-based discussion of whether society is better served by the stewardship approach. This discussion is sorely needed.

It is important to note what further scholastic research could spring from this study. Certainly, an update of US Steel's annual reports could be done. Another avenue of research could be studies of other companies with long histories, both within and without the steel industry. This type of research is helped by the digitization efforts recently done by libraries. Kevin's research method is a model for comparative study of companies.

Please forgive my musings about 2027 – the 125th annual report of US Steel. I remember Gary's chiding of me in 2002 for not celebrating the 100th annual report of US Steel. Gary, once again, was right. So why not a full-blown academic

celebration in 2028 about the 1902–2027 annual reports of US Steel from an accounting and business history viewpoint? I am hoping that one feature of this celebration would be Kevin’s book.

Perhaps accounting historians would be interested in hosting this event? Another item could be the May 19, 1962 video of Marilyn Monroe’s singing to President John F. Kennedy on his birthday, a reprise about “How you deal with US Steel” referring to his efforts to beat back US Steel’s attempt to raise prices.

I’m hopeful that such conferences will celebrate and perhaps encourage a comeback of the stewardship view of reporting.

Richard Vangermeersch
Emeritus Professor of Accounting
University of Rhode Island
Kingston, Rhode Island
February 10, 2022

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I would like to acknowledge my dissertation committee for providing insights, support and motivation to see me through this accomplishment: Dr Gary J. Previts (Chair), Dr Timothy, J. Fogarty, Dr Larry M. Parker, and Dr Bo Carlsson. My dissertation Chair, Dr Gary J. Previts, has been a consistent voice of encouragement and wisdom. I consider him my mentor and one of the most generous person in my life. I appreciate the hours of his time he provided to me. Dr Fogarty and Dr Carlsson have given me insights for many different aspects of this study and to my intellectual development. Dr Parker has been one of my biggest supporters throughout this process. Whenever I was discouraged, he was there new thought or idea, and always with a smile and a pat on the back.

I also need to thank Emeritus Professor Richard Vangermeersh of the University of Rhode Island, not only for supplying the annual reports for the US Steel Corporation from his private collection, but his constant support and encouragement whenever we met at conferences, and his postcards and phone calls.

I want to acknowledge the staff of the Kelvin Smith Library for converting the annual reports into digital copies for further analysis, especially Catherine Wells for her dedication to the digitization project.

Finally, to my family and friends who have had to endure me through this process and, yet, provided me with endless support and encouragement, thank you, and you never again have to ask, “Are you done yet?”

Corporate Reporting: From Stewardship to Contract

The Annual Reports of the United States Steel Corporation (1902–2006)

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ABSTRACT

By
Kevin Christopher Carduff

The United States Steel Corporation, formed in 1901, was the first company in the United States financial markets to be capitalized at the billion dollar level. Its iconic role in the industrial economy of the country has been studied from several dimensions. This research proposes to examine fully the reporting outcomes for the company. Previous content analysis projects (Claire, 1945; Vangermeersch, 1970, 1979) have examined shorter periods of US Steel's external reporting. However, this study will examine a complete set of the company's annual reports from 1902 to 2006, in hard copy and digital formats. It is motivated by an interest in establishing an historical perspective for a question posed by Ross Watts (1977, 2006), "Why do financial reports take their current form?"

The study is initiated with the undertaking of traditional, manual content analysis of the annual report data set. In this process, five separate eras of financial reporting were identified throughout a century of annual reports. The eras identified are: (1) The Gary Years; (2) The Transition Years; (3) The Voorhees/Tyson Years; (4) The Evolution Years; and (5) The Cost Effective Years. Each of these eras are distinctive in their reporting style and corporate financial information which was emphasized and reported. Next, a model-based method of content analysis was developed and performed using structured equations in an attempt to identify external variables which may have influenced the *content, display, and tone* of the annual reports over the period of the study. This analysis did not produce significant results; however, the process of developing the model and analysis of the reports provides a promising pathway for future exploration of single company datasets by clarifying the limitations of such modeling for long periods of time.

The findings altogether assist in improving an understanding of the managerial ideology of the company toward public reporting which appears to have evolved from a stewardship model of corporate reporting to a contract model consistent with the changing configuration of capital providers and management's view of the information needs of such providers.

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CHAPTER 1

INTRODUCTION

1.1. OVERVIEW

This study investigates the financial reporting history of the United States Steel Corporation (US Steel) for the past century. It is motivated by a question, framed in the writings of Ross Watts, “Why do financial statement take their current form?” Annual reports of US Steel from 1902 to 2006 will be examined in order to improve the understanding of a variety of financial reporting elements, including events, discretionary disclosures, changes in reporting format, trends, and the tone of the president’s/chairman’s letter. Increased analysis of these reports over time has the potential to assist in improving our discipline’s understanding of the financial reporting process overall, given the bell weather role and position US Steel has had in this process over the last century. These elements will be identified based upon traditional and model-based methods of content analysis. Traditional content analysis, as to specific terms, events, and similar items will assist in the discovery of highlights and reporting trends. Additionally, a new model-based technique of content analysis will be employed to test variable relationships related to the content, display, and tone in the annual reports.

As the first billion dollar corporate capitalization in the United States, US Steel is an appropriate candidate for analysis. Its annual reports are the first known to include corporate performance of multiple business areas through consolidated financial statements, as detailed in Dickinson’s *The Profits of a Corporation* (1904). Even though US Steel’s annual reports have been used in numerous research studies, no other study has evaluated as complete a series of US Steel’s annual reports, nor has a study used content analysis software to analyze variables of key portions of the text in US Steel’s reports.

Previous US Steel studies (Claire, 1945; McCraw & Reinhardt, 1989; Reed, 1989; Vangermeersch, 1970, 1979) have examined specific time periods and financial reporting concerns. However, this longitudinal study is unique, using the firm’s reports for the period of more than a century (1902–2006) as the basis for examining reporting and disclosure properties as to their qualities as noted

below by May (1961) and Allen and McDermott (1993). Also, the study will employ digitized versions of these annual reports as the dataset for established and model-based methodologies of content analysis. Previous studies have performed extensive longitudinal analysis (more than 70 years) of Texaco (Hutajulu, 2002), or of multiple companies (Edwards, 1984; Murphy, 1970; Vangermeersch, 1979). However, no other study has performed analysis using a digitized dataset of similar company-specific completeness.

Recent content analysis software will support statistical tools and improve the consistency of methodology in conducting this study of the information in these reports. Content analysis is becoming an accepted method of exploring accounting narrative, and researchers have sought additional technology-enhanced measures to leverage it, Sydserff and Weetman (1999). The software, NUD*IST, has been used in studies by Hutajulu (2002) and Fogarty and Rogers (2005), for word counting and readability scales. The software, DICTION 5.0, was utilized in a study, Sydserff and Weetman (2002) to develop a transitivity index for an accounting narrative in the management discussions of 26 companies.

In summary, this study will contribute to the existing accounting literature by performing a traditional content analysis of a single corporation's annual reports for a period of over one hundred years. In addition, the study will develop and test a model-based method to analyze variables using content analysis software, seeking to identify new methods for content analysis of annual reports as a basis for identifying important aspects of US Steel's financial disclosure practices.

1.2. STRUCTURE

As noted, the complete series of annual reports for US Steel will be analyzed through two methods of content analysis. To begin the study, primary documents were obtained and digitized. Original copies of US Steel annual reports were scanned and converted into searchable text and PDF files.

Traditional content analysis will seek to identify major attributes or patterns in US Steel's discretionary disclosures, and evolutionary trends such as the use of text over graphics or tables for reporting financial performance over the one hundred plus years of report data.

Using the digitized reports, software-based content analysis will be employed to identify key variables in the accounting narrative, or the "tone" of management's reports to the shareholders of the company to gain insights into the managerial ideology of communication to readers of the annual reports.

Both methods of content analysis will employ dependent variables in our model to be tested. The traditional content analysis will provide us with two dependent variables: (1) the content of discretionary disclosure over the period; and (2) the visual display of financial information. The literature of contemporary content analysis research will provide us with the third dependent variable of "tone" in the management's letter. The model-based method approach derived from these variables will be discussed in Chapter 4.

1.3. MOTIVATION FOR THE RESEARCH PROJECT

Through the analysis of US Steel's annual reports over the twentieth century, this study responds to and expands upon Watts' (1977, 2006) query noted above by: (1) improving our understanding of the role and the influence of US Steel on public corporate reporting; (2) relating managerial ideology and external financial reporting of a large corporation; and (3) employing traditional content analysis in the accounting literature and exploring model-based applications of a digitized primary document dataset of US Steel annual reports.

1.3.1. *The Influence of US Steel Upon Public Corporate Reporting*

The formation of US Steel was significant for many reasons. First, it was a full representation of the valuation processes of the House of Morgan, that is, a demonstration of the calculation of how to value an enterprise. At the turn of the twentieth century, there were at least four recognized methods for valuation of stocks: dividend discount value, cost basis, replacement cost, and earning power. However, the value of earning power of the firm was not widely accepted. In 1901, there was public scrutiny and suspicion as to the vast amount paid for the assets of US Steel, that is, the \$1.4 billion capitalization, at a time when the revenues of the entire federal government were only \$586 million (Gordon, 2004). During the rise of the railroads, the value of the stock was based in the potential dividend payments expected in future years. An article in *The Chronicle* in April, 1867, discusses the merits of the railroad's dividend policies and whether these stocks were overvalued. The issues under debate related to the bankruptcies of many railroads at the time, and the author questions the value of these stocks:

[...] so long as the credit of established companies can be used almost without limit to infuse life into bankrupt roads for selfish purposes, nothing better can be expected than that the public will refuse to purchase stocks except at a heavy discount from their *real dividend value* (emphasis added). (*The Commercial and Financial Chronicle*, April 27, 1867, p. 520)

Another method of valuation is the worth of the assets of the company. People believed that the amount of stock and liabilities of the company should be equivalent of the value of the assets in the firm. When stock and bonds were issued over the estimated value of the tangible assets, the company was deemed to have issued "watered stock." This was a claim made against US Steel. Strouse (1999) cites the industry magazine *Iron Age* criticism of the US Steel consolidation as "an aggregate of large consolidations, each liberally dosed at the time it was formed with *aqua pura*," plus "additional quantities of water ... sprinkled in to cement the amalgamation." Initial estimates claim that US Steel only had assets valued between \$676 million and \$793 million (Strouse, 1999), and were overcapitalized by nearly \$600–700 million dollars. Many experts at the time questioned whether US Steel would ever be able to pay dividends to the numerous shareholders. However, J. P. Morgan issued a release in March 1901 stating:

Statements furnished to us ... show that the aggregate of the net earnings of all the companies for the calendar year 1900 was amply sufficient to pay dividends on both classes of the new stock, besides making provision for sinking funds and maintenance of properties. (Strouse, 1999, p. 406)

Morgan believed that the true value of the company was in the earning power of the firm. As Strouse notes, “The value of the common stock depended on the company’s future earnings, which, as in Morgan’s railroad reorganizations, were expected to rise because of increased efficiencies, economies of scale, and administrative rationalization.” Morgan had no concerns about “overpaying” for the individual pieces of the company in order to form the whole. The following are attributed to Morgan concerning the price of the assets. Carnegie apparently said he should have asked Morgan for an additional \$100 million, to which Morgan responded, “And I would have paid it.” In the negotiations for the difference in the final piece of the US Steel – American Steel and Wire – after Judge Gary objected to the asking price of \$30 million, Morgan was quoted as saying: “Judge Gary, in a business proposition as great as this, would you let a matter of \$5,000,000 (difference in price) stand in the way of success” (Strouse, 1999)?

After being convinced of Charles Schwab’s vision for a giant steel conglomerate following Schwab’s speech of December 12, 1900, Morgan perceived a vast potential earning power to sustain and advance the value of the company beyond the book value or historical cost of the combined assets. It was this potential of the combined assets (and centralized management) to produce the future earnings which created value, in Morgan’s mind. To demonstrate this belief, a corporate finance textbook (Lough, 1913) used US Steel as a case study for corporate formation. Lough stated:

In what has been said it has been assumed that the proper way to value a property is to arrive at the probable cost of replacing it. But there is another method of valuation which is more popular among business men, and, to this writer’s mind, more scientific. This method is to capitalize earning power. (Lough, 1913, p. 217)

Lough noted that the combined profits of the original eight companies which formed US Steel in 1901 were \$96,000,000. He then determined the net earnings of US Steel for the first seven years of its incorporation. The average earnings were \$120,614,000. He stated, “Now if we assume that 10 per cent is a fair rate on money invested in the steel business and capitalize profits on that basis, we get a result not a great deal below the present capitalization.” These results support that the concerns over watered stock were exaggerated because Morgan understood the valuation of the firm would be determined by earning power of the firm, not in the balance sheet cost or replacement cost valuations of the assets.

Another area of importance from the creation of US Steel is its influence upon corporate reporting since inception. US Steel’s corporate reports have been recognized as historical milestones in corporate reporting.

In 1903, *Scientific American* described the US Steel annual report as “the most complete and circumstantial report ever issued by any great American corporation” (Allen & McDermott, 1993). George O. May (1961), who succeeded

Dickinson as the senior partner of the U.S. office for Price Waterhouse (PW), described the first annual report's significance:

All authorities will probably agree that the first full report of the United States Steel Corporation, which was for the year ending December 31, 1902, was a landmark in the history of this development.

In his 1971 autobiography, John Inglis, who was the US Steel engagement partner for PW in the 1940s, commented that US Steel was the first manufacturing company to adopt the last-in, first-out method of inventory accounting. In addition, US Steel was a leader in two post-World War II developments regarding the debate over historical cost depreciation versus inflation-focused replacement cost accounting.

In 1938, the National Association of Manufacturers (NAM), a leading industry advocacy group, published a study, *Making the Annual Report Speak for Industry*, which examined the annual reports of over 2,000 public companies to provide examples of "best practices" in financial reporting. The study concluded that corporate reports had devolved into pages upon pages of tables and obscure accounting terminology which were not useful to the general public, only to accountants, themselves, or corporate management. NAM proposed companies should "modernize or humanize" their annual reports to expand the accessibility of the message contained in the annual report to ordinary investing citizens or other stakeholders. They recommended colorful graphs and charts which focused upon simple messages of where corporate funds are spent (payroll, taxes, and inventory costs), and discuss how companies are improving society. US Steel was one of the leading implementers of the recommendations of the 1939 NAM study. This change may be related to the new Chair of the company's Finance Committee, Enders Voorhees, who took office in 1938 and remained in that post until 1953. Voorhees (1970) noted the importance of the clarity of the statements to US Steel, similar to the model suggested by NAM:

It has been our custom through the years to present the ordinary accounting reports in considerably more than the required detail, with whatever supporting accounts seemed necessary for a full understanding. We still do that. But in recent years it has been borne in on us that technical accounting and its language tell the story only to those few who have the ability to analyze such accounts and that the accounts did not at all tell the story to the considerable audience that wanted to understand our workings but could not comprehend our accounting language and presentation. Also we found that in certain of accounts both the nomenclature and the arrangements tended to be misleading to those unfamiliar with accounting technicalities and language.

Therefore we have been making over our formal accounts and terminology in order that they could not mislead and we have evolved from them several new presentations which we think tell better the economic story of the year. (p. 36)

In 1943, Voorhees described the US Steel managerial ideology for financial reporting by stating:

The point that I want to make is that our stewardship is not discharged unless we report our doings in such a fashion that the basic social function of our enterprises is clearly portrayed – only then will business be held to the highest degree of responsibility for what it can and should

do and not be hampered by being asked to do what is not in its power to do. The annual report is one of the most effective methods of presenting the simple facts to the public. (Voorhees, 1970, p. 31)

Today, the early twenty-first century public company reporting environment is characterized by mandated standards or regulations. However, in 1902, this was not the model of financial reporting. US Steel defined the twentieth century model with their first Annual Report in 1902. The report reflected the influence of Arthur Lowes Dickinson and his associates at Price Waterhouse & Co. Prior to the 1933 and 1934 Securities Acts, there was not a mandated common format for corporate reporting to the public. Beginning with Dickinson's speech to the First World Congress of Accountants in 1904 (Dickinson, 1904) up through his colleague John Scobie's internal memo of 1912, "Memorandum on Balance Sheet Audits," —the PW firm developed what became known by the staff as the "Accounting Bible" (DeMond, 1951). Scobie's memo was later provided to the Federal Trade Commission (FTC) to establish standard balance sheets for business to submit to banks for credit purposes. In 1917, it was published with only slight modification by the Federal Reserve Board in a pamphlet entitled "Uniform Accounts." The memo was described by Allen and McDermott (1993):

The committee members "were favorably impressed" and agreed on text. This document was transmitted to the Federal Reserve Board for publication in the April 1917 issue of its *Bulletin*, reprinted in 1918 in pamphlet form, and then revised in 1929.¹ Not only was this report the first step in what would ultimately lead to the development of formalized auditing standards in the late 1940s, but it was also the only attempt to set down a compendium or accounting principles, aside from articles in the ¹ This report was retitled "Verification of Financial Statements" and published in the *Journal of Accountancy*, May 1929, Vol. 27, No. 5.

Journal of Accountancy and special bulletins published by the AIA, until the 1930s. (pp. 51–52)

US Steel may have assisted PW in being a principal force in the movement to create national awareness of the importance of reporting given important and possibly unique financial reporting challenges such as: surpluses, "watered stock," goodwill, depreciation accounting, and quarterly reporting.

1.3.2. *The Development of Managerial Ideology in Corporate Reports*

Kaufman and Englander (2004) have examined the rise of professional corporate management and analyzed the shift in corporate responsibility from a "trustee" (and fiduciary) relationship between the professional management and shareholders of the firm in the 1920s and 1930s toward a more legally based contract relationship between managers of the firm and investors – creditors or shareholders – in the 1990s.

In revisiting the work of Berle and Means' *The Modern Corporation and Private Property* (1932), they cite Adam Smith in stating the invisible hand only influences organizations owned and operated by the same person (or small group of people). Berle and Means contended that the development of large, publicly financed corporations has changed the ownership structure from a small group of proprietary managers to professional managers, who represent a dispersed

ownership structure. Indeed US Steel's capital structure was the largest and one of the earliest examples of the change from a purely proprietary model toward that described by Berle and Means after the fact. While the firm was financed partially by bonds (approximately \$360 million), it was significantly financed by the issuance of preferred (\$510 million) and common stock (\$508 million). To further examine the stock numbers, the \$510 million in preferred stock represents 5,102,811 shares held by 25,296 investors; and, the \$508 million in common stock represents 5,083,025 shares held by 17,723 investors (many of whom were employees in the mills). US Steel ownership was represented by a large group of shareholder owners who were without influence over the day-to-day management of the firm, while the company developed an extensive management team to run all the steel operations. This called for a new approach to financial reporting to reflect management's ideology as to the role of providing for the information needs of owners and to meet fiduciary expectations and obligations.

Just as the awareness of a management's ideology may be useful in achieving an improved understanding of the reporting objectives of corporations, so also the approaches to valuing a company may influence or be influenced by an investor's "orientation" to the financial performance measures of the firm. In recognition of this influence, Zeff (1962) proposed an orientation postulate for accounting. He noted that no single accounting system would suffice for all accounting issues for all industries, and as a result, management needed to determine how they would disclose information and to whom they were accountable. This framing of managerial ideology with regard to management's external communication to shareholders as individual investors becomes a starting point for consideration.

In this work, we attempt a modification to Zeff's "orientation postulate" to acknowledge the influence of management's ideology with regard to financial reporting and ownership structure. For example, does the company have a long-term or short-term orientation or a stewardship or a compliance orientation? Initially, US Steel's management reflected Morgan's earning power valuation predisposition; they developed proprietary income statement orientation, as outlined in Dickinson's 1904 paper, as the vehicle to reflect an earnings power orientation from the first report published in 1902.

This approach was in contrast to a fixed asset or balance sheet orientation which was customary at the time. Indeed this custom was evidenced by the focus of the American Association of Public Accountant's decision to write its first standard in the 1894 annual meeting which dictated the order of the balance sheet was to be that of liquidity (American Institute of Accountants, 1938). As Vangermeersch (1979) discovered, US Steel was the only company out of 20 industrial companies to include an income statement in their annual reports every year prior to it being mandated by the Securities Acts.

After World War II, a shift in capital sourcing from individual investors to institutional investors would eventually precipitate adjustment in the orientation of managerial ideology and the reporting related thereto. In his 1955 dissertation, Horngren identified another emerging party demanding additional corporate information for investment decision-making by professional financial analysts who directed capital flows from the growing community of institutional investors

and who served as advisors to larger sophisticated individual investors, and who were beginning to act as consolidators of individual pension plan funding which became the modern 401(k)/mutual fund system of the 1990s. Horngren's dissertation described the analyst as follows:

He represents, dollar wise, a large percentage of existing investment capital. As an investor, or an advisor to investors, he has a weighty responsibility. He is an investment sophisticate who demands and deserves full and accurate information.

In Horngren's interviews with financial analysts, the key aspects of financial information which analysts were requesting was increased financial disclosure, more importantly consistent and comparable financial information for inter-company and intra-industry analysis to make predictions for future corporate performance.

The importance of relating managerial ideology to the contents of reports and the needs of capital providers will provide a context for the analysis of the US Steel reports over time.

1.3.3. The Use of Content Analysis in Accounting Research

Content analysis of annual reports (and other forms of financial reporting disclosures) has a historical presence in social science research and has extensively been applied to accounting research topics. Berelson (1971) has discussed the history of content analysis within the communications field. He proposes three assumptions for content analysis research: (1) establish inferences about relationships between the intent and the content of the information; (2) correspond "meanings" in the content to the "meanings" intended by the communicator so they can be understood by the audience; and (3) confirm that the quantitative description of communication content is meaningful. These three assumptions are applicable to accounting research and provide guidelines for consideration in the applications of this study.

As earlier discussed earlier, in the accounting research field, one of the earliest examples of content analysis was the NAM study of 1938. The organization examined 2,000 annual reports to document best practices in corporate financial reporting. As noted above this study influenced the content and appearance of US Steel's reports.

Content analysis was advanced as a methodology in the studies of Clair (1945) and Vangermeersch (1970) who examined specific financial disclosures and the format of the reports of US Steel. Their work enhanced our understanding of the interaction between several institutional forces, such as NAM, and the disclosure properties of corporate reports.

The use of content analysis as a methodology declined in the accounting literature after the emergence of capital market research and positive accounting. However, it was reintroduced in the 1990s in several papers, one in particular which was developed to provide information to the American Institute of Certified Public Accountant's (AICPA) special committee on financial reporting, the Jenkins Committee. In that study, Previts, Bricker, Robinson, and Young