ACCOUNTING FOR HUMAN RESOURCES: IMPLICATIONS FOR THEORY AND PRACTICE

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Knowledge workers are an important resource for the typical modern business firm, yet financial reporting ignores such resources. Some researchers contend that the accounting profession has stressed reliability in order to make the accounting appear objective. Others concur, noting that accounting is an insecure profession and adopts strict rules when faced with uncertainty. Accountants have promulgated a strict rule to expense human resource costs, although many know that such resources have future benefits.

Some researchers suggest that any discipline must modify its language in order to initiate change toward providing useful social ameliorations. If accounting theorists extend this idea to the accounting lexicon's description of investments in human resources, investors and other accounting user groups might gain greater insight into how a firm fosters and nourishes human capital.

I tested three hypotheses related to this issue by administering an experiment designed to assess financial analysts' perceptions about alternative financial statement treatments of human resources in an investment recommendation task. I predicted that (1) analysts' perceptions of the reliability (relevance) of the information they received would decrease (increase) as the treatment of human resources increasingly violated GAAP (became more current-oriented), (2) analysts exposed to alternative accounting treatments would

report a lower likelihood of recommending that their clients invest in the company in the task, and (3) financial analysts who ranked reliability (relevance) as a more important information quality would be less (more) likely to recommend that their clients buy the stock represented in the case because the treatment of human resources on the financial statements violated GAAP (was more current-oriented) as compared to analysts who ranked reliability (relevance) as being lower (higher) in importance.

Analysts receiving financial statements with accounting treatments of human resource costs that violated GAAP judged such information as less reliable and were also less likely to recommend that their clients buy the stock in the task than analysts receiving financial statements that conformed to GAAP. Also, analysts who perceived reliability as a more important information quality reacted more negatively to a replacement cost approach to accounting for human resources than participants who perceived reliability as being less important. A potential confounding explanation of the results is the varied language used in the audit opinions included with the treatment financial statements. Whether explained by the audit opinion language or the actual differences contained in the financial statements, the results suggest that an important user group, financial analysts, may be subject to the aura of objectivity suggested by Porter in 1995.

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CHAPTER I

THEORETICAL FRAMEWORK AND LITERATURE REVIEWS

Introduction

Business has changed drastically since World War II, with service industries now dominating the U.S. economy. U.S. Department of Commerce statistics show that activity in "private services-producing industries" and intellectually based sectors of the economy contribute about two-thirds of the Gross Domestic Product to the United States (Lum and Moyer 1998). Increasingly, technology drives economic activity in both the service and manufacturing industries. In many industries, rapid technological growth and change happen routinely. The creation and maintenance of information contribute to the economy at an ever-increasing rate (Lum and Moyer 1998). Views of the modern business firm and its purpose in society also are changing rapidly. A recent national public opinion poll indicated that many people view corporations as socioeconomic entities with obligations to workers and communities, as well as to their shareholders (Hart Research 1999). Contemporary financial reporting reflects none of these changes.

Accounting and the Cult of Impersonality

Porter (1995, 89) suggests that accounting is an insecure profession. He maintains that the accounting profession's pursuit of objectivity through the rigorous application of principles and rules represents "an adaptation to the suspicions of powerful outsiders."

Porter (1995, 90) sees the pursuit of mechanical objectivity in accounting as "an alternative to personal trust."

Porter (1995, 95) suggests that accountants confounded different notions of objectivity when they suggested that an "objective statement is one that any other informed person would make about the same subject matter." Such notions include two conflicting forms of objectivity: (1) following rules, versus (2) attempting to find truth. Porter (1995) notes that accounting would be quite different and better equipped to use the latter form of objectivity if it were less subject to external influences. He suggests that if accounting were a secure profession, then "accounting realism might be allied to . . . faith in the discretion of experts" rather than to the strict application of rules (Porter 1995, 95).

Porter (1995) also observes that accountants view objectivity as a means to reduce the role of expert judgment in financial reporting. He argues that accountants see objectivity in terms of the consensus formed among users with respect to an accounting metric. Porter (1995, 96) says that practitioners also believe that "reaching agreement by following rules provided their most powerful defense against" outside critics. Porter (1995, 96) concludes that accountants' desire "to minimize the appearance of subjective discretion– managerial whim– in financial reports" permeates their discussions of objectivity.

The substitution of rule-bound quantification for expert judgment in accounting is consistent with the observation that reliability and relevance often conflict. The Financial Accounting Standards Board (FASB) (1980) admits that reliability and relevance often

compete as information qualities. Wallman (1996) concludes that reliability dominates relevance in contemporary financial reporting.

The FASB (1980) defines reliability as the extent to which information is (1) verifiable, (2) a faithful representation of the events it purports to represent, and (3) neutral (free from error or bias). They define relevance as the extent to which information makes a difference in a decision. Relevance includes (1) predictive value, (2) feedback value, and (3) timeliness.

The future-oriented characteristics of relevance listed above appear as though they require expertise and judgment, while the historical orientation of the reliability characteristics above seems more consistent with following rules. Porter (1995) lends support to Wallman's (1996) assertion that accountants focus primarily on reliability as *the* primary qualitative characteristic of contemporary financial reporting. As an information quality, reliability is less troublesome for accountants who are more comfortable with the historic cost model that the public perceives as providing verifiable and objective data. This is true, despite the fact that accountants recognize that historical cost allocation is a highly subjective process. Porter (1995: 96) notes that professions that are highly vulnerable to external criticism, such as accounting, reflect their insecurity by stressing pseudo-objectivity even when they know that a process, such as financial reporting, rests on the exercise of professional judgment.

Accountants readily acknowledge in professional discussions that the financial reporting process is inherently subjective. But, as Hines (1988) and Thomas (1971) suggest, the profession masks that subjectivity by using words that create an aura of

precision that has never existed. For example, words such as “matching” and “realization” suggest precision and objectivity to external users, although accountants know that both concepts require subjective application and use of expert judgment.

Several problems result from the accounting profession's overselling of its ability to provide objective, precise information in financial reporting. The profession has created external expectations with respect to the objectivity of the financial reporting process that it simply cannot achieve. The emphasis on objectivity and precision has proven to be invidious. Having created high expectations as to the "objectivity” of financial reporting to assure users that managers’ whims have been controlled and to create trust, the profession finds itself exposed to ever-increasing legal liability.

Porter (1995) suggests that increasing outside threats cause the profession to retreat toward more rules and standardization to strengthen perceptions of objectivity. Then, as Wallman (1996) notes, the profession virtually abandons one of its key qualitative characteristics, relevance, because it does not perceive future-oriented data as sufficiently “objective.” The omission of future-oriented data can result in a significant loss in information content.

This aura of objectivity also has led to the present accounting model's inability to capture important information about investments in intangible resources, such as human resources. In spite of the drastic change in the nature of economic activity referred to in the introduction, financial reporting remains largely unchanged. Merino (1993) suggests that the private property rights paradigm has dominated accounting theory, specifically represented by the residual-equity, historical cost accounting model. Under the residual

equity view, managers see human resources as costs they should control for the benefit of shareholders. Best (1990) contends that the accounting treatment of labor as a cost created incentives for management to make jobs routine and to turn workers into interchangeable parts. That model may have worked well during the industrial age, but in today's high tech environment, an accounting system is needed that creates incentives for management to foster "knowledge workers" and invest in employees.

Problems with the Current Practice of Accounting for Human Resource Costs

Current accounting principles treat virtually all labor costs, including wages, benefits, recruiting, and training, as expenses. This treatment is similar to commodities such as materials or supplies. The practice of commodifying labor developed primarily during the Industrial Revolution. Baird (1992, 9) notes that labor "was viewed as a commodity to be bought, used and then discarded. . . ." During this period, the major investment of a long-term nature was property, plant, and equipment. Labor moved from the farm to the factory due to the capital concentration in and near major cities. This pressure to commodify labor originated with the investor view of the firm–the view that holds that stockholders are only constituency requiring the accountability of managers for the effects of managerial decisions.

While accounting theory accepts the long-term nature of capital assets and natural resource reserves, the current accounting system masks labor's long-term contributions to firms. While accounting methodology has addressed current trends in the economy regarding noncapital assets, with a general change toward a "mark-to-market" approach,

it has not examined the adequacy of the current model to measure intellectually based economic activity.

The direct write-off of employee costs leads to at least two problems. In a traditional sense, accounting understates assets when it expenses such costs immediately. Training costs, whether general or specific, usually provide benefits to the firm for multiple periods and therefore satisfy the FASB's current definition of an asset (Flamholtz 1985). Commodifying labor also fails to capture important information relevant to decisions involving a firm's human resources. Expensing employee costs encourages managers and stockholders to take a short-term perspective in decisions regarding employees. Managers often lay off employees, freeze or cut pay, and cut training programs to enhance short-term profit (Downs, 1996). Since labor cost is usually substantial, these cuts usually increase net income in the short term. Downsizing may be, in part, the result of pursuing short-term profits inflated by labor cuts. Downs (1996) contends that this short-term focus ignores long-term issues. Steven Roach, an economist for Morgan Stanley, says:

> Plant closings, layoffs and other forms of downsizing have certainly had the effect of providing a short-term boost to earnings. However, whether . . . [they] will also drive lasting productivity enhancement is highly debatable. . . . Labor can't be squeezed forever, and Corporate America can't rely on the 'hollowing' tactics of downsizing to maintain market share in an expanding global economy. . . . I'm now having second thoughts as to whether we have reached the promised land. (Koretz, 1997)

It seems plausible to argue that consumers of accounting information would find matters such as employee turnover rates, job growth or decline, and safety information useful.

Koretz (1997) also cites a national poll providing evidence that the public believes corporations fill multiple purposes in society. Results of this poll suggest that firms are accountable to their employees as well as the communities within which such firms operate. This poll provides further evidence of public sentiment that firms should at least sometimes forgo profit in order to benefit workers and communities. Paton and Littleton (1940) suggested that corporations are social entities that exist for the benefit of many constituents.

Eccles and Mavrinac (1995) report results of a survey that suggest financial analysts believe managers of high-tech industries do not disclose adequate information about their firms' investments in adequate workforces. The majority of managers of service and high technology firms in the Eccles and Mavrinac (1995) study believe the shares of their companies are unfairly valued. This perception may be due, at least in part, to uncertainty created by inadequate information disclosure of human capital in knowledge-based firms.

The Jenkins Report, commissioned by the AICPA (1992), suggests that financial reporting may lose its relevance in society and business practice unless it begins to provide more future-oriented information that helps investors assess the long-term value of a firm more adequately. Their recommendations for remedying the situation include increasing disclosures, including nonfinancial measures regarding key business processes within the firm.

Calls for Reform from a Postmodernist / Institutionalist Perspective

Luker et al. (1998) suggest that scientific inquiry based on any "ism" (capitalism or institutionalism) must abandon the notion of searching for objective "Truth" in order to be productive. Instead, inquiry in all social sciences should attempt to modify the language used within a discipline toward providing useful social ameliorations. D'Agostino (1988) maintains that questions and inquiry in the sciences change incrementally as language changes.

Neoclassical economic theorists have long since abandoned Adam Smith's view that labor productivity is the key input in economic valuation. Instead, their focus has been on ownership and exchange as the pivotal point of analysis and valuation. Neoclassical economic theory therefore has great difficulty in capturing information about resources that do not easily offer exchange values. Veblen (1909) warns that the benefit that "captains of finance" derive by restricting production is less than the benefit to society of using technology to its fullest extent. The utilitarian view forces economists to define values and therefore organizations in terms of exchange and ownership rather than productivity.

Kapp (1950) eloquently discussed the detrimental preoccupation of traditional economic analysis with exchange values. He maintained that any event that cannot be defined easily by exchange values is deemed noneconomic in nature. He suggested that this bias in neoclassical analysis is the primary reason why economists generally consider the analysis of social costs as an area of inquiry outside economics. Kapp (1950, 6) stated, " The implicit identification of entrepreneurial

costs and returns with total costs and total benefits has continued to govern the methodological approaches of one generation of economists after another." His analysis implied that abandoning exchange values as the sole valuation tool in cases where such values are not easily definable might lead to better managerial and investor decision making.

Other economists such as Penrose (1959), Reich (1992) and Best (1990) argue that the income producing capacity of the typical business enterprise today often lies principally with human capital rather than tangible capital. Reich (1992, 105) suggests "as intellectual capital continues to overtake physical capital as the key asset of the corporation, shareholders find themselves on shakier and shakier ground." While accounting does value certain aspects of intellectual capital like goodwill, patent, and trademarks, Reich (105) says that these "legal legacies of past successes" may lose their value very quickly in a highly fluid, intellectually based economy. He continues to criticize by suggesting that the causes of such losses could include basic organizational changes like employees leaving the firm.

Accountants, such as Elliot (1994, 1991) and Wallman (1996) concur with these economists' assessments about the importance of knowledge assets. These authors maintain that the current accounting model risks becoming irrelevant in the information age. Wallman (1996) suggests that proponents of the current accounting model preoccupy themselves with reliability as the key recognition criterion for financial statement concepts. He suggests that relevance is often pushed aside as a recognition criterion.

The profession and users alike may reject human resource accounting models that involve radical change – models now inconsistent with historic cost accounting. Users may "mistrust" accounting numbers quantified by using a valuation rather than transactional base, labeling these models as subjective. There is evidence of such potential mistrust when financial reporting departs from generally accepted accounting principles (Bricker et al. 1995; Previts et al. 1994).

Few would deny that investments in intellectual capital such as training a workforce or engaging in research and development meet the "relevance" criteria present in the FASB's definition of assets (i.e., providing future economic benefit to the firm). However, since the firm cannot own or control an individual or an intellect, some reject calling such investments as assets on objectivity and reliability grounds. Interestingly, Flamholtz (1985), Sackman et al. (1989), and Lev (1997) all suggest that failing to describe human resource investments as assets results in valuing the future benefit of such investment with perhaps the most subjective measure of all – zero.

Traditional accounting theory, based in neoclassical economics, generally defines assets and other accounting concepts in terms of exchange values. The recognition of financial statement concepts such as assets, liabilities, revenues, and expenses are defined by and constrained by this exchange value approach. In this theoretical environment, it is not surprising to note that verifiability becomes the dominant concept defining usefulness. Like other resources that are not easily defined by exchange values, traditional accounting theory views human resource value as outside the domain of accounting and financial reporting. The contribution of labor to activities of the modern

firm is one of the most significant examples of how historical cost accounting fails to record future economic resources that cannot be defined easily by a verifiable exchange value.

While institutional economists eloquently deconstruct the reality of an exclusively exchange value approach to economic activity, they have failed to offer alternative models from which an accounting praxis may evolve. D'Agostino (1988) suggests that change in any form of inquiry almost always happens incrementally instead of suddenly. Before the present accounting model can be amended to recognize expenditures on enhancing a workforce as an asset or resource, the profession must begin to refer to such efforts as potential resources rather than as expenses. The language the profession uses must begin to change before it can allow recognition to occur. Objectivity continues to represent a powerful institutional barrier that will likely create measurement and epistemological impediments for the implementation of nontraditional models. The principle of objectivity may serve to block efforts to adopt accounting concepts and standards not founded in exchange value terms. As alluded to earlier, the property rights paradigm of the firm continues to dominate accounting principles, as it did in the 1970s and 1980s (Previts and Merino 1998).

A postmodernist view of this issue provides the motivation for the experiment I plan to perform with respect to human resource accounting. Luker et al. (1998, 6) suggests that in order to be productive, scientific inquiry from any economic tradition, capitalism or institutionalism, must abandon the notion of searching for objective Truth. Instead, inquiry should help modify language that contributes to "powerful ameliorative

interventions." Extending the idea of the "usefulness" of academic inquiry in Luker et al. (1998), and D'Agostino (1988), the present proposed change in accounting's description (language) of firm assets, expenses, and resources might prove useful to investors and employees. Investors may gain insight into how firm management fosters and nourishes human capital in a rapidly changing business environment in which human intellect increasingly drives economic activity. Employees may also benefit by this change in language if management considers the more long-term impact of reductions in training and downsizing.

Human resource accounting (HRA) proponents have offered many models as to how accounting may measure and report intellectually based investments as assets rather than expenses. One way to classify HRA models is the model's consistency with (1) an exchange value accounting based model, such as historical cost HRA (Flamholtz (1985), versus (2) a less traditional, more institutional notion of the firm, such as defining the human resource asset as the discounted value of employees' future wages (Friedman and Lev 1974; Lev and Schwartz 1971). While I am sympathetic to the institutional notion of the business firm, accounting models that completely abandon a transaction cost basis remain impractical. HRA models that capitalize future expectations of labor costs at present value, or other models more or less sympathetic to a multiple stakeholder view of the modern firm such as those briefly alluded to above, are likely to be rejected today just as they were thirty years ago.

Objectives of the Present Study

In the present work, I hope to renew the dialogue in accounting that began among HRA proponents thirty years ago. The HRA literature attempted to change the language of accounting to include investments in maintaining and enhancing human resources within the definition of an asset. Effecting, or at least starting such a change is critical in an information age. Just as capital investment was important in the Industrial Revolution, intellectual investment is important in the Information Age. The accounting profession should begin a dialogue in the accounting profession whereby the desire for objectivity based upon exchange values in financial reporting does not prevent it from providing information that users want and need about intellectually based firms. Intellectual assets and aspects of technological change, rather than exchange value, must become the focal point of accounting in the twenty-first century.

The decision to include information regarding employees or human resources of a firm in a financial reporting model seems independent of the epistemological perspective with which employees are viewed. Taking the neoclassical, proprietary view of the firm, employees are economic resources that management can use to increase shareholder value (Sackman et al. 1989; Flamholtz 1985). If an effective workforce is a strategic advantage or resource of the firm, it seems plausible to argue that managers are stewards of this asset. It follows that shareholders should evaluate management's use of this resource. This is the basic theoretical foundation of most human resource models in accounting literature.

From institutional economic theory, public sentiment, and Paton and Littleton's (1940) entity perspective, we might view employees as stakeholders of the firm. Taking this perspective, management should be held accountable for actions that impact employees directly or indirectly. Institutional economics offers insights into why it would be beneficial to treat employees as resources or stakeholders in the firm for disclosure purposes. If the language that accounting theory applies to human resources changes so that investments in enhancing a workforce become an asset, then management may be held to a higher level of accountability concerning how it uses such resources and makes decisions that impact these suppliers of knowledge capital.

This study has two objectives. The first is to test the extent to which classifying investments in human resources (training costs) influences the judgments of financial analysts. A related objective is to assess the degree to which financial analysts accept or reject alternative descriptions of human resources, such as (1) an "objective" historic cost-based model versus (2) a hypothetical, future-oriented replacement cost model of reporting such investments.

Literature Review of Human Resource Accounting (HRA)

Friedman and Lev (1974, 235) suggest that HRA includes identifying, measuring, and communicating aspects about a company's "human resources." Sackman et al. (1989, 238) categorize HRA research as (1) "development of human resource cost and value measurement models, (2) organizational applications of human resource cost and value

measures, and (3) empirical research regarding the impact of HRA in decision making." They place HRA models into two broad classifications: (1) cost models and (2) value models. The cost models fall into three subcategories: (1) original cost, (2) replacement cost, and (3) opportunity cost models.

Historic cost-based HRA models rely on the traditional transactional (actual) cost model. Historic cost-based models generally record the costs of acquiring and maintaining the firm's human resource skill set (Sackman et al. 1989). Such models record recruiting, training, and other costs as assets. Brummet et al. (1968), Caplan and Landekich (1974), and Flamholtz (1974) provide examples of this approach.

The replacement cost model represents a step toward breaking the linkage between HRA and actual costs incurred. These models capitalize the costs of recruiting, hiring, and training new workers if the firm had to replace its set of human resources. Hekimian and Jones (1967) and Flamholtz (1973) provide examples of replacement cost HRA models.

A few early studies in HRA attempted to test the effect of HRA information on decision makers. Flamholtz (1976) examined the effect of monetary and nonmonetary HRA information on a human resource management decision. He designed the experiment around a staffing task. Reported results indicated that nonmonetary human resource information affected participants' decisions.

Two other studies examined whether the presence of human resource information made a difference in investment decisions. Elias (1972) used survey methodology to investigate differences among investment decisions of various accounting users based on

the presence or absence of HRA information. The results of his study indicated that human resource data would make a difference in the investment decision.

Hendricks (1967) performed an experiment in which he used MBA students as subjects in a repeated measures design to analyze financial statements given the presence or absence of human resource data. He analyzed investment decision outcomes to determine whether human resource data influenced participants' investment choices. His results suggested that HRA data had an effect on decision outcomes in the experiment.

Historical Overview of Human Resource Accounting

In addressing any project within which one recommends reviving human resource accounting (HRA) in some way as a relevant interest of accounting theorists and practitioners, one should explore the historical context within which it developed as a research interest in accounting and offer some potential explanations as to why it failed to impact accounting practice in any broad way. The period of time in which human resource accounting evolved, roughly defined from the early 1960s through the mid-1970s, was a time of great social and economic change.

Technological change was dramatic over this period of time. Computers and automated manufacturing and processing increased productivity per worker in basic industries such as agriculture and manufacturing. Productivity in these sectors of the economy soared during this time. As an example of such change, Deutsch (1979, 17) cites a paper industry study that reported the following:

> This study finds that in 1971 it took 1,000 workers to generate net earnings of $1 million per year for the average paper company. But by 1975, as new technologies were introduced, as few as 235 workers could generate the same level of income.

The growth of government provided major changes in society and the economy. Social welfare and government assistance programs, including unemployment assistance, grew dramatically in the 1960s and 1970s (Deutsche 1979). While most neoclassical economists begrudge the growth of the welfare state, the growth in government assistance provided at least some economic assistance to workers between jobs. Employee and employer bear only a portion of the costs of such assistance through unemployment insurance premiums. Unemployment insurance potentially enables some workers the opportunity of job mobility without incurring an inordinate amount of economic risk. While this seems a minor point here, the human resource models that rely on a replacement cost or opportunity cost notion of value are not theoretically plausible without assuming worker voluntary mobility.

When analyzing the period from the late 1960s to the mid-1970s, one cannot ignore many changes regarding civil and human rights. While minority groups obtained the right to vote, it took civil, judicial, and legislative action to provide a more equitable level of minority economic participation. Workforces became much more heterogeneous over the decades of the 1950s, 1960s, and 1970s. While early civil rights litigation involved obtaining equal access to educational and social resources, rights litigation in the 1970s shifted to employment issues.

Government and the courts became directly and indirectly involved in the relationship between employer and employee during these decades. Examples of

government involvement include (1) EEOC (in hiring and firing), (2) OSHA (in safety on the job), (3) ERISA (in pension plan accountability), and (4) many other programs and interventions. This increased level of intervention of government in economic activity could not have occurred without the tolerance of the general public. Even conservative politicians such as Richard Nixon observed the public's shift toward tolerating a more interventionist role of government in macro- and microeconomic activity.

With the growth of the military industrial complex, every aspect of economic activity, including the labor movement, was at its peak in the 1950s. Labor unions had significant influence on management policies and practices during the time in which human resource accounting evolved. The labor movement certainly influenced the societal expectation of "job security, pensions, and more leisure time" (Deutsche 1979, 23) during the 1960s and early 1970s.

Rostow (1952) predicted that there would be a shortage of highly skilled labor as the economy matured. He suggested that any country must maintain a highly skilled workforce in order to experience an adequate rate of economic growth as compared to international competitors. Rostow analyzed trends in education as indicators of the nation's efforts in maintaining an adequately skilled labor force. He maintained that education was a primary factor in establishing a country's ability to adapt to change in economic activity. Education became a principal concern of both society and government in the late 1950s through the 1960s. The Department of Education serves

as one example of the federal government's influence on education standards in the 1960s.

During this period of drastic change in society and economic activity, neoclassical economists were reifying the notion of self-interest as the key motivation in all aspects of human behavior. Becker's (1964) notion of human capital was a direct attempt by the neoclassical economists to apply utility theory to include human resources within the economists' domain. Becker (1964) took an exchange value view of human resources, suggesting that the human capital cost or value incurred by a firm is the opportunity cost the firm would incur if the employee (or group of employees) left the firm. While this notion of human capital served as the theoretical foundation of human resource accounting entry value approaches discussed in the literature review above, it also served to limit the ability of accounting researchers to account for a factor of production that does not easily fit into an exchange value framework.

Why Human Resource Accounting Failed?

There are at least three potential arguments or historical explanations as to why human resource accounting, popular in the late 1960s and early 1970s, virtually died in the late 1970s and early 1980s. These reasons include (1) the objectivity principle in accounting theory and practice, (2) the shift towards a positivist approach to accounting theory, and (3) the development of the human resource management discipline.

Opponents of HRA suggest that, while human resource costs might be relevant to decision makers, the valuation models suffer from an intolerable level of subjectivity. Accounting theory is always resistant to change. This resistance is institutionally grounded in a relatively unquestioning commitment to objectivity in accounting. While many critical accounting researchers note that objectivity is largely a myth (Hines 1991, 1988; Chua 1986), this principle of accounting theory endures today as a key concept of the usefulness of accounting information. It is not difficult to see that most generally accepted accounting principles exist upon subjective assumptions and concepts (Thomas 1971).

Early work in HRA focused on concepts within the boundaries of historical cost concepts. In the early 1970s, HRA incorporated the ideas of replacement costs, present values of future benefits, and opportunity costs. Like all hypothetical systems, accounting practice rejected such notions. Berger and Luckman (1966) suggest that one of the ways professions assume and maintain their positions in society is to establish and maintain an aura of specialized knowledge and power. Also, as noted earlier, Porter (1995) suggests that, since accounting is an insecure profession, it maintains this aura of objectivity by stressing standardization and rules instead of acknowledging that expert judgment is required in applying most accounting concepts.

Human resource accounting, like most so-called "normative" inquiries into accounting theory, also suffered from the shift toward a "positivist" perspective in accounting theory and research. HRA's decline occurred in the same period during

which capital market research and positive accounting theory increased in popularity in accounting academia. The focus on investigating "market reactions" to various accounting disclosures, along with the development and reification of a "positive accounting theory," is consistent with Kapp's (1950) observations of an exclusionary "exchange value" perspective of economic analysis. Defining the usefulness of accounting numbers solely in terms of methodologically constructed market reactions to such numbers reflects a bias toward defining economic inquiry in terms of exchange values. Academic inquiry into improving or expanding accounting concepts slowed dramatically in the late 1970s and throughout the 1980s. Academics generally left this inquiry to the accounting profession itself, the FASB, and the SEC.

It is informative to note that researchers still interested in human resource accounting, such as Flamholtz, sought audiences for their work in the management discipline of personnel and human resource management. Aside from a few literature reviews (Sackman et al. 1989; Scarpello and Theeke, 1989), little research addressing human resource accounting was published in accounting journals after the mid-1970s.

Issues regarding human resources became of increasing concern to management and organization theorists in the mid-1970s. Mathis and Jackson (1994) offer an evolution of management's relationship with employees described roughly by calendar decades. They describe 1950 to 1960 as the decade in which concepts of human relations dominated management concerns about employees. Managers and industrial psychologists began to apply theories of human behavior in conceptualizing the relationship between employers and employees (Baird 1992). The new

philosophy evolved from the failure of the scientific management movement to emphasize the importance and individual nature of people (Baird 1992; Deutsch 1979). Baird (1992) attributes the shift in the perspective of the roles of managers to industrial psychologists such as Hugo Munsterberg.

Managers during this period perceived that employees needed supervision. Human resource activities (or personnel departments, as they were known then) focused on training supervisors to deal with employee sensitivities and the psychological aspects of managing people. Participative management dominated human resource theory and practice from 1960-1970. This decade saw personnel managers concerned with employee involvement in decision making. "Job enrichment, integrated task teams, etc." (Mathis and Jackson 1994, 7) became tasks of personnel managers in the 1970s because the management discipline perceived that employees needed challenge and task-talent congruence.

The emphasis on people likely contributed to the direct criticism of human resource accounting that firms cannot and should not quantify the value of human beings in dollar terms. Early and recent critics of human resource accounting include those who suggest both conceptual and ethical difficulties in treating people as assets. Human relations and organizational behavior theorists, in emphasizing the importance and uniqueness of people, contributed to this basic criticism of human resource accounting. Critics of human resource accounting noted that most firms do not own or trade individuals like other tangible and intangible assets.

The historical context in which HRA first flourished and then failed is important to understand before suggesting accounting for investments in employees as an asset of the firm. In many ways, the calls made by accountants, economists, and others today to view efforts to foster and maintain an effective workforce as an investment in firm resources come at a time similar to that when HRA first developed as a research interest. Technological change is normal in business enterprise today. The value of intellectual capital seems more important than ever as business practice adapts and evolves toward service-sector, intellectually based activities. At the same time, some of the impediments toward reviving HRA in any significant way remain, that is, the aura of objectivity in accounting maintained by an exchange-value, reliability-defined approach to accounting recognition and measurement.

Prior Research on Financial Analyst Decision Making and Accounting

Since this study involves studying judgments of financial analysts, I briefly review the literature on decision making below. Several studies have attempted to model the processes that financial analysts use to perform tasks, such as (1) screening initial equity investment opportunities (Bouwman et al. 1995, 1987); (2) assessing earnings quality (Biggs 1984); and (3) making investment recommendations (Anderson 1988). Hopkins (1996) and Hirst and Hopkins (1998) tested the effects of accounting differences upon valuation decisions.

Bouwman et al. (1995, 1987) used protocol analysis to model an initial investment-screening task. They asked their participants, buy-side[1] analysts, to assess the likelihood that they would select a case company for further financial analysis on a nine-point, Likert-based scale. The experimental instrument included financial statements, management discussion and analysis, and information from the company's 10-K. The study is relevant here to show what types of accounting information financial analysts may use in their decision making and how such judgments may be modeled in experiments.

Biggs (1984) used an earnings quality assessment task as the subject of his protocol analysis. His experimental task involved asking participants to assess the earnings quality of several companies using financial statement data spanning several years. Anderson (1988) used an investment (buy/hold/sell) recommendation task in his protocol analysis addressing information search and evaluation behavior of financial analysts.

Eccles and Mavrinac (1995) surveyed financial analysts and found that they prefer the disclosure rather than accounting recognition of information on the face of the financial statements when involving non-GAAP accounting information. The survey also showed that analysts consider financial statement numbers more important than disclosures.

Hopkins (1996, 1995) tested the effect of alternative accounting classification of hybrid securities (debt vs. equity) on financial analyst stock price assessments. Hopkins based his study upon a psychological theory that predicts that individuals use

[1] Buy-side analysts perform financial analysis for institutional investors while sell-side analysts typically publish investment analysis for direct remuneration (Hopkins 1996; Bouwman et al. 1987).

prior knowledge to search for and interpret information, including accounting information, in order to make decisions (Spivey 1987; Chi et al. 1981). He also predicted that the structure (classification) of language (accounting information) would affect the way individuals interpret the information (Voss and Bisanz 1985). Hopkins (1996, 36) states that:

> knowledgeable users of accounting information may rely on the categories of accounts listed explicitly on the financial statements (assets, liabilities, and owners' equity). If this occurs, psychology research suggests these individuals will use balance sheet classification to activate categories of prior knowledge and to interpret them explicitly in their judgments and decisions.

Hirst and Hopkins (1998) found that the recognition of concepts on the face of the financial statements influenced users' judgments more than footnote disclosure. Their results indicated that financial analysts' judgments were influenced more when comprehensive income was reported on the face of the financial statements rather than in a footnote disclosure. However, the issue explored here is somewhat different from the Hirst and Hopkins (1998) study. The financial statement recognition issue tested in their study is consistent with GAAP, while the HRA issue I tested in this study is not. Since this model represents a technical departure from GAAP, one could argue that the prior psychological research suggests that the participants would perceive the capitalization of training costs as less reliable than status quo accounting treatment of such costs.

One should also consider which of Porter's (1995) notions of objectivity (expert judgment or following rules) the audit attestation function promotes in financial reporting. One may view auditors as experts who judge the extent to which management represents company performance and financial position "fairly" when they issue their

opinions. This perspective is more consistent with Porter's notion that objectivity rests upon expert judgment. Conversely, auditors may rely heavily on the extent to which management was consistent with GAAP when considering what type of opinion (unqualified, qualified, adverse, etc.) to issue about a set of financial statements. This perspective of the audit function is consistent with Porter's assertion that accounting attempts to protect itself from outside criticism by adhering to standardization and following rules.

Porter (1995) suggests that the accounting profession attempts to protect itself from outside critics by promoting objectivity with standardization and following rules, even though accountants know that applying accounting concepts requires subjectivity or expert judgment. Preserving this "rule-bound" path toward objectivity may render accounting unable to address important changes in business enterprise. Maintaining important intangible assets like a well-trained workforce are critical in today's business environment, and yet accounting remains inadequate to communicate a firm's efforts in this area. D' Agostino (1988) and Luker et al. (1998) offer insight in suggesting that change within institutions, such as accounting, occur as the result of incremental shifts in the language used within the institution. Applying this to accounting and the issue of intangible assets such as human resources, accounting theory must begin to use terms such as "asset" and "investment" in referring to such activities instead of "expenses" before users are able to view such resources appropriately.

CHAPTER 2

RESEARCH QUESTIONS AND HYPOTHESES

Financial accounting practitioners employ two forms of communicating financial accounting language to users: (1) “recognizing” concepts directly on the financial statements (assets, liabilities, revenues, and expenses) and/or (2) disclosing concepts in the footnotes to the financial statements.[1] The primary research question I propose is "Does the classification of human resource information, operationalized as training cost information, have an effect on financial analysts’ judgments?" There are at least two other questions related to this primary research question that one may educe from the literature reviews above. The first question is the effect of different financial statement treatments of human resource information (training costs) upon financial analysts' perceptions of the reliability and relevance of the accounting information they use in making judgments. The second related issue is how financial analysts' preconceptions of the importance of reliability and/or relevance as qualities of information impact the effect of training cost classification on financial statements upon analysts’ judgments.

[1] While the public may regard accounting as objective, Hines (1988) clearly shows the inherent subjectivity of concepts such as realization.

Reliability, Relevance, and Human Resource Accounting Treatment

Since expensing human resource costs such as employee training costs is consistent with GAAP, there is no reason to suggest that the disclosure of HRA information (training costs) information in a footnote to the financial statements would affect analysts' reliability assessments of such information. Such treatment is consistent with the language used to describe training cost expenditures typically; it preserves the aura of objectivity with respect to the information presented because it maintains accepted practice (Porter 1995). It fits Wallman's (1996) notion that the core accounting presentation (i.e., current GAAP) is, by definition, reliable.

Perceptions of the Reliability of Accounting Information

Wallman (1996), Porter (1995), Bricker et al. (1995), and Previts et al. (1994) imply that as accounting recognition departs farther and farther from GAAP, financial analysts would view such information as less reliable. While treating investments in human resources (training costs) as assets under a historical cost framework is consistent with the profession's definition of an asset,[2] it is a violation of existing accounting principles nonetheless. It fits Wallman's (1996) description of layer two of his "colorized" accounting model that starts the departure from using reliability as the key recognition criteria. Bricker et al. (1995), and Previts et al. (1994) suggest that analysts will react negatively to any departure from accepted accounting practice. They maintain that analysts assess "earnings quality" by the extent to which financial statements are

[2] See the FASB's conceptual framework (SFAC #2, FASB 1980)

consistent with GAAP. Porter (1995) and Hines (1988) suggest that accountants define or shape users' perceptions of reality when employing accepted accounting recognition criteria.

There is no doubt that capitalizing a human resource asset on the financial statements using replacement cost methodology deviates significantly from current acceptable accounting practice. This treatment not only violates current GAAP, it violates the historic cost model. Wallman (1996) would classify such accounting treatment in the fifth layer of his colorized accounting model, which falls far outside the core set of financial statements, At this layer, financial statement users may not assume that the information is reliable in the accounting sense. There is little doubt that the "earnings quality" literature (Bricker et al. 1995; Previts et al. 1994) would predict that analysts would deem such accounting treatment as less reliable. Porter (1995) might imply that, since such treatment violates not only accepted practice but also the fundamental assumptions made to preserve an insecure accounting profession's mystification of "objective" financial reporting, analysts would judge it as less reliable. Prior literature suggests that financial analysts receiving information presented under a replacement cost framework are more likely to allow their perceptions regarding information reliability to overcome any perceived relevance of the presented training cost information.

Perceptions of the Relevance of Accounting Information

Wallman (1996) uses the layers in his colorized model to describe financial reporting criteria that would simultaneously and progressively move away from reliability and towards relevance as the dominant recognition criterion. Wallman includes items not presently described by the core set of accounting standards financial statements while remaining consistent with the historical cost accounting model.[3] As stated above, treating the training costs that a firm incurs to enhance a workforce as an asset under a historic cost framework is consistent with his description of layer two in his model.

Placing an item in layer two then represents a small step toward using relevance as the key recognition criterion. Lev (1997) suggests that capitalizing the historic cost of intangibles, such as the costs incurred on training employees, would provide additional information content for financial statement users; human resources represent the primary productive capacity of knowledge-based firms. Consistent with the FASB's (1980) current definition of an asset, the deferral of costs incurred in training efforts beyond the current accounting period may reflect managements' expectations that such efforts will provide future economic benefit to the firm. Hopkins (1996) and Hirst and Hopkins (1998) suggest that accounting classifications may provide additional information content for financial analysts.[4]

[3] Wallman's (1996, 144-146) colorized accounting model includes five (1-5) layers of accounting concepts including items (1) satisfying recognition criteria (core financial statements), (2) possibly raising reliability concerns, (3) possibly raising reliability and definitional concerns, (4) not satisfying definitional criteria, and (5) raising definitional, reliability, and measurement concerns.

[4] Hopkins and Hirst (1996) and Hirst and Hopkins (1998) tested alternative treatments consistent with GAAP, while here I test the effects of classification that progressively violate GAAP.

Wallman (1996), as stated above, would classify a replacement cost approach to human resource accounting in his fifth layer. This layer, far removed from the core set of financial statements, positions relevance as the dominant qualitative criterion. Flamholtz (1985), Sackman et al. (1989), and Elliot (1991) suggest that capitalizing human resources under a replacement cost model provides information content beyond a historical cost model. Replacement costs represent current, not historic, costs. Since they are more current in nature, one may assume that they are more consistent with the FASB's description of relevance as an information quality (i.e., information more timely, more predictive with feedback value). Hence there may be a relationship between financial analysts' perceptions of reliability or relevance of information and the way that accountants' classify and report human resource information on the financial statements.

In the present study, I asked participants to assess the reliability of the information they received in the case.[5] Considering their perceptions of the reliability of the information they receive in the treatment financial statements, based upon the discussion above, one would expect that as the accounting treatment of investments in human resources (training costs) moves farther away from conforming with GAAP, analysts are more likely to perceive such information as less reliable. The hypothesis offered to investigate the relationship between changes in perceptions of the reliability of information and the classifications of human resource investment on the financial statements is:

[5] Before asking the participant analysts to assess the reliability and relevance of the information they received in the case, I gave them the accounting professions definition of such terms (FASB, 1980) and asked them to provided their assessments in terms of such definitions.

H_{1a}: Analysts' rankings of the reliability of the information will decrease as the treatment of human resource information increasingly violates GAAP.

In addition, I also asked financial analysts who participated in the study to assess the relevance of the information they received in the case. Because financial statements contain more future-oriented information (historic cost capitalization or replacement cost capitalization), one would expect that analysts are more likely to perceive such information as more relevant. The hypothesis offered to investigate the relationship between changes in perceptions of relevance and the alternative classification of human resource investment on the financial statements as follows:

H_{1b}: Analysts' rankings of the relevance of the information will increase as the treatment of human resource information becomes increasingly future oriented.

Table 1 contains the directional hypotheses related to H1. This table illustrates the expected differences between the mean change in financial analysts' reliability (progressively negative) and relevance (progressively positive) perceptions across the different human resource financial statement treatment groups.

Table 1
Hypothesis 1

	Hypothesized cell mean differences across groups
Reliability	DISCLOSURE > CAPITALIZED HC > REPLACEMENT COST
Relevance	DISCLOSURE < CAPITALIZED HC < REPLACEMENT COST

Note: These constructs represent the change in reliability and relevance perceptions of the information that analysts use as the financial statements depart further from GAAP (become more future oriented).

Human Resource Accounting and Analysts' Buying Judgments

Financial analysts use accounting information routinely in their efforts to make investment recommendations to their clients. HRA proponents such as Flamholtz (1985), Sackman et al. (1989), Elliot (1991), Wallman (1996), and Lev (1997) imply that the presence of human resource information on financial statements will influence analysts' performance assessments of companies and will therefore potentially affect their judgments as to the likelihood that they would recommend that their clients buy a particular security.[6] These authors imply that capitalizing the historic costs of training would provide additional information about management's efforts to enhance a workforce beyond the voluntary disclosure of training costs on the income statement or in a footnote. Capitalizing training costs and then amortizing such costs over an assumed useful life would reflect management's expectations of the future benefits of such investments in human resources. Communicating such expectations would provide information content beyond the current practice of expensing such costs immediately. Flamholtz (1985) and Sackman et al. (1989) maintain that capitalizing human resources as an asset under a replacement cost model would potentially provide even more information content, since this model attempts to capture the current cost of maintaining a workforce.

On the other hand, Bricker et al. (1995) and Previts et al. (1994) suggest that analysts assess the degree to which managers attempt to manipulate accounting information, such

[6] Under this framework, information about a firm's significant investments in human resources (training costs) would signal positive information about the future performance of the firm.

as earnings. They imply that analysts would view capitalizing expenditures such as training costs on the balance sheet as an attempt of management to smooth income across periods. As analysts identify efforts to smooth income, their skepticism about firm performance would increase. As this skepticism increases, they may perceive such financial statements as less reliable and/or less relevant.

Bricker et al. (1995) and Previts et al. (1994) assert that analysts perceive that conservatively reported earnings have higher quality than earnings reported under less conservative accounting principles.[7] *Ceteris paribus*, analysts would associate poorer earnings quality, more information risk, and therefore higher performance expectations with firms capitalizing human resource costs than with firms who treated such costs on the financial statements consistently with GAAP (expensing and disclosing training costs.)[8]

Replacement cost accounting is based upon hypothetical events or expenditures, and violates the core assumption that realization and recognition of accounting concepts occurs only as the "result of a past transaction." Replacement cost accounting is an even more radical departure from accepted accounting practice than capitalizing historic training costs. The financial analysis earnings quality literature and Porter's (1995) suggestion that accountants and accounting users maintain a "faith" in the objectivity of standardized accounting treatment, predict that analysts would view replacement cost

[7] Conservative accounting principles in the sense used here involve using accounting principles that minimize income and or assets in the period under consideration (Bricker et al. 1995; Previts et al. 1994).
[8] If a firm increases investment in training over several consecutive accounting periods, and capitalizes such costs, income and assets would increase faster than amortization of such costs *ceteris paribus*.

accounting for human resources with even more skepticism than capitalizing the historic training costs of a firm. Hence, analysts exposed to replacement cost accounting would decrease their judgments as to earnings quality beyond training cost capitalization, increase their assessment of information risk, and therefore increase their required return from the company in question beyond those who received statements reflecting more conventional accounting treatment. If analysts' expectations about firm returns increased, analysts receiving financial statements that increasingly violate GAAP would be less likely to recommend that their clients buy the stock than analysts receiving financial statements reflecting accepted accounting practice. Hypothesis 2 then is:

H_2: Financial analysts' who receive financial statements that increasingly violate GAAP will be less likely to recommend that their clients buy the stock of the company represented in the case than analysts who receive financial statements that are more consistent with GAAP.[9]

Testing this hypothesis will include holding the analysts' reliability and relevance perceptions of the information they use in their judgments constant.

The Conditional Effect of Analysts' Preconceived Notions of Reliability and Relevance on Human Resource Accounting and Analysts' Buying Judgments

The last stage of hypothesis testing involves assessing the extent to which the level of importance that analysts attach to reliability and relevance as important information characteristics condition the effect of financial statement treatment of human resource information upon their buying judgments. Analysts who rank the importance of

[9] Note the previous discussion of the HRA literature that would view training cost capitalization and human resource replacement cost accounting differently.

qualitative characteristics, such as reliability or relevance, as less important may react differently to alternative treatments of human resource costs on the financial statements than do analysts who rank such qualities as very important.

Porter (1995), Bricker et al. (1995), Previts et al. (1994), and Hines (1988) suggest that users often suspect that management is manipulating information when they see reporting practices that deviate from the status quo (GAAP). One would expect that as users assign higher ranks of importance to reliability as an information quality, they will tend to increasingly discount accounting numbers as financial reporting increasingly deviates from GAAP. Based upon this potential contingent effect of perceptions of reliability on accounting treatment, Hypothesis 3a is:

H_{3a}: Financial analysts who assign **higher** ranks of reliability as an important information quality are **less** likely to make buy recommendations as the treatment of training costs on the financial statements deviates more from GAAP as **compared** to analysts who assign **lower** ranks.

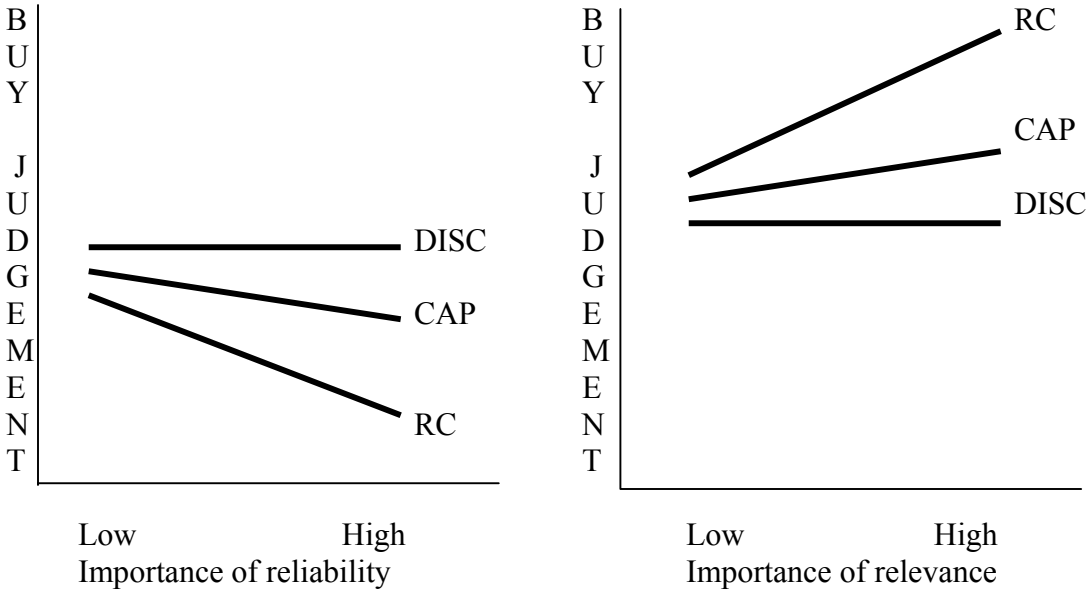
Once more, proponents of HRA, including Lev (1997), Sackman et al. (1989) and Flamholtz (1985) contend that capitalizing training costs signals potentially relevant information in historic cost terms and even more so in replacement cost terms. When users view relevance as the most information quality, they will progressively value accounting numbers that are incrementally more future-oriented. Since the firm used to design the experimental materials in this research is a computer consulting business which relies heavily on intellectual capital to produce revenues and increased its commitment to preserving such capital each year (spent more on training than the year

before), the HRA literature would predict that analysts would perceive such information positively. Hypothesis 3b is:

H_{3b}: Financial analysts who assign **higher** ranks of relevance as an important information quality are **more** likely to make buy recommendations as the treatment of human resource costs on the financial statements reflect incremental future benefit as **compared** to analysts who assign **lower** ranks.

Figure 1 presents these hypotheses graphically. Lines "DISC," "CAP," and "RC" in the graphs represent the three different accounting treatments of training costs (i.e., expensed and disclosed, capitalized under a historical cost model, and capitalized under replacement cost model).

Figure 1
Hypothesis 3



CHAPTER 3

METHODOLOGY

The design used in this study is a 3x3, between subjects, pretest-posttest design. Cook and Campbell (1979) and Campbell and Stanley (1966) note that the pretest-posttest design traditionally offers some protection against most of the threats to the internal validity such as history, maturation, instrumentation, selection, and mean regression.

Subjects

I used a group of undergraduate senior accounting and finance students and several MBA students from a university in the southwest United States to pilot the experimental instrument. Participants for the primary study included financial analysts from several sources including investment management businesses in Arkansas and Texas. I collected 67 responses from participants in sessions ranging from one to as many as nine persons at a session. Most of the subjects are buy-side analysts/equity portfolio managers, although I collected responses from several sell-side analysts.

Dependent Variables and the Experimental Task

The experimental task asked financial analysts to make three judgments concerning the case materials. These three judgments were to (1) assess the likelihood that participants would recommend that their clients "buy" the common stock of the company

presented in the case, (2) assess the reliability of the information received in the case, and (3) assess the relevance of the information received in the case. The design elicited each of these judgments in both the pretest and posttest phases of the experiment.

The buying judgment represents the opinion that financial analysts must form about a company they analyze. According to the experts I interviewed for assistance in designing this task, analysts must form such opinions in order to decide whether to recommend investments to their clients or to add/hold/sell securities to/from the portfolios that they manage. I used a 9-point likelihood scale as shown in the pretest and posttest instruments to capture this assessment (see Appendices A and C).

The second judgment that participants made with respect to the present study was to assess the reliability of the information they received in both the pretest and the treatment materials. Participants recorded this judgment based upon a 9-point Likert-type scale. The third judgment captured in the study was for participants to assess the relevance of the information they received in both the pretest and treatment materials. Participants also responded to this judgment along a 9-point Likert-type scale. Since the meaning of words such as "reliability" and "relevance" for individuals may be specific to their backgrounds, I provided short definitions of the two terms from the FASB's conceptual framework (FASB 1980) with the reliability and relevance judgment questions. These definitions should have provided the users with a contextual basis upon which to form their reliability and relevance judgments so as to promote some measure of construct validity.

Operationalization of the Treatment Independent Variable

The primary independent variable of interest is the treatment of human resource costs for financial statement purposes. This variable has three levels, including (1) expense and voluntary disclosure (DISC), (2) capitalized historic cost (CAP), and (3) capitalized replacement cost (RC). The "historical" training cost figures used in the case for the DISC and CAP groups are, in fact, hypothetical numbers based upon a statement made by management in an article recently published concerning the company used to construct the experimental materials (Lieber 1997). In this article, management purported to spend approximately 7 percent of sales on company training. I calculated this percentage for each year presented in the financial statements and extracted these costs proportionally from the expenses labeled as "other costs" on the income statement and detailed in a footnote.

Financial analysts assigned to the DISC group received financial statements that expense training costs and voluntarily disclose information about such costs in a footnote to the financial statements. This treatment set of financial statements represents a presentation of human resource information that is consistent with GAAP. Since the human resource (training) costs are expensed in this treatment, the treatment will include an unqualified auditor's report. This group of participants serves as the reference group in the analysis of results.

The CAP group received financial statements upon which I capitalized the hypothetical figure of historical training costs referred to above as an asset instead of

deducting it as an expense. The asset is amortized over three years.[1] Since sales for the company represented in the case materials grow each year, the human resource investment, or "asset," net of amortization gets larger each year. The positive effect of this capitalization on net income also grows in absolute magnitude. Finally, in order to be consistent with the language of referring to investments in human resources as assets, the CAP financial statements required a reclassification of these hypothetical training costs from operating activities to investing activities on the statement of cash flows. The results of this reclassification increase cash flows from operating activities and decrease cash flows from investing activities. While there is no effect on net cash flow, participants may have viewed the increase in cash flows from operations positively.

Per professional audit standards, most departures from GAAP that result in material differences to the financial statements should result in either a qualified or an adverse audit opinion, depending upon the "magnitude of the departure" (AICPA 1998a). However, the auditor can issue an unqualified opinion in the case of a departure from GAAP if he/she has a basis to believe that the financial statements would be misleading without the departure. The audit opinion should include an explanatory paragraph that describes the departure, its effects on the financial statements, and the reasons why the financial statements would be misleading without the departure (AICPA 1998b). The capitalization of training costs in this treatment for the latest year represented in the case results in a 14.5 percent increase to net income and a 10.7 percent increase to total assets.

[1] Industry averages from the computer industry suggest that firm-specific training is good for about three years. While this period may seem short, it seems appropriate for industries that experience rapid change.

Based upon this exception, I included an unqualified audit opinion for the CAP group financial statements that contains a paragraph that explains and concurs with the departure from GAAP in capitalizing training costs.

RC represents the presentation of a current cost approach to presenting human resource costs on the balance sheet. The treatment for this group involves capitalizing the hypothetical costs of replacing the firm's existing workforce. This is a hypothetical number in the case study so as to make the positive effects of booking a human resource asset greater for this group than for the CAP group. The hypothetical asset reflected here is the estimated cost of having to retrain the employees that the firm expects to leave within the next accounting period. Flamholtz (1985) and Friedman and Lev (1974) predict that a firm may experience lower human resource costs including less recruiting costs and lower training costs if it maintains a lower turnover rate relative to other firms in the industry.

The type of audit report used in this treatment depended upon the propensity of the departure from GAAP to misstate the financial position of the reporting company and the magnitude of the effect of the departure from GAAP. For the latest year represented in the case materials, the replacement cost capitalization described above results in an increase to net income of 18.8 percent and an increase to total assets of 13.8 percent. Audit standards suggest that, in addition to magnitude, the pervasiveness of the effect of the departure on financial statement accounts should be considered. Since the departure here represents not only a departure from GAAP in capitalizing such costs, but also a departure from the accepted accounting concept of historical cost-based financial

statements, an unqualified opinion like the one included in the CAP statements explained above would be inappropriate.

However, since participants may have been able to undo the "RC" effect of departure on the financial statements for the case materials, a qualified audit opinion relating to this treatment rather than an adverse opinion seemed appropriate. The use of a qualified opinion also potentially reduces the magnitude of a possible demand effect, at least as compared to the CAP group, since an adverse opinion may carry additional information for the RC group not present in the CAP group.

The SEC does not currently allow a publicly traded company to file financial statements in a Form 10K that received a qualified audit opinion based upon a departure from GAAP. The SEC requires that the company and its auditors must resolve such differences before submitting financial statements in filings. However, the experimental materials here must involve a publicly held company since the experimental task involves analysts making a security-buying recommendation. The design must bear this departure from SEC reporting practices.

Table 2 summarizes the total income, asset, and equity differences between each of the three treatment groups. Capitalizing and amortizing training costs on the CAP financial statements causes income (including earnings per share), assets, and total equity to increase as compared to the DISC group. Capitalizing and amortizing human resources using the hypothetical replacement costs (RC) increases income assets and equity even more than the CAP group. The audit opinions in the CAP and RC treatments

contain their respective income and asset effects upon the financial statements in the explanation paragraphs.

Table 2
Selected Financial Statement Treatment Differences

Current Year (CY) Treatment	Net Income	Basic EPS	Total Assets	Total Equity	Operating CashFlows
DISCLOSURE	$32,929	$0.62	$237,242	$149,787	$22,332
CAPITALIZED HC	$37,716	$0.71	$262,587	$164,769	$50,799
REPLACE COST	$39,125	$0.74	$270,089	$169,203	$50,799
Last Year (CY - 1)					
DISCLOSURE	$24,025	$0.48	$147,644	$ 98,185	$24,541
CAPITALIZED HC	$29,131	$0.58	$164,571	$108,386	$43,642
REPLACE COST	$30,632	$0.61	$169,581	$111,405	$43,642

Selected Profitability Ratios:

	Net Margin		Return on Assets		Return on Equity	
	CY	CY-1	CY	CY-1	CY	CY-1
DISCLOSURE	.081	.088	.138	.163	.219	.245
CAPITALIZED HC	.093	.107	.143	.177	.228	.268
REPLACE COST	.096	.112	.145	.181	.231	.275

Note: Appendix D is a more detailed presentation of the value differences between accounting variables in each of the three treatment sets of financial statements. See numbers and text in bold in the treatment materials (see Appendix B) for other differences such as footnote or audit opinions.

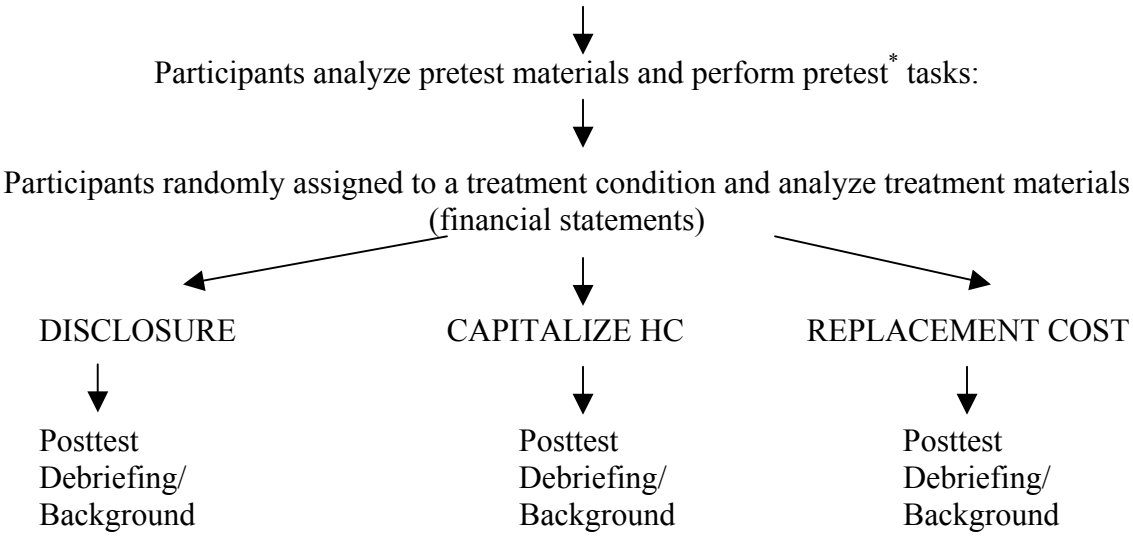
The Conditioning Variables-Preconceived Importance of Reliability and Relevance as Accounting Information Qualities

Based upon the theoretical development of hypothesis 3, the responses from the financial analyst participants in the study in the pretest materials were used to assess the relative importance they attach a priori to reliability and relevance as accounting information qualities. Before any analysis of the case materials, I captured each analyst's responses to questions designed to assess their levels of the perceived importance of reliability and relevance as accounting information qualities in the form of 9-point Likert-scaled responses to questions contained in the pretest materials (see Appendix A).

Experimental Procedures

I randomized participant assignment to each of the three treatment groups. Student participants in the pilot study performed the experimental task in a classroom setting. All but nine of the financial analysts who participated in the actual study performed the tasks in their offices or in a conference room at their place of business. Nine of the participants performed the experiment at a professional meeting. On most occasions, if time permitted, I gave a brief presentation of the research question and motivation when all of the professional participants had completed and returned the posttest questions and debriefing questionnaire. Figure 2 summarizes the flow of experimental procedures graphically.

Figure 2
Experiment procedures



Note: As discussed in the text, the participants performed the same three tasks in the pretest and posttest, including (1) the buying judgment, (2) the reliability judgment, and (3) the relevance judgment (see Appendices A and C).

So as to minimize possible instrumental effects upon the importance of reliability and relevance as information quality measurements discussed above, I asked the participants to answer and turn in these questions before they looked at any information in their analysis. After they had answered these two questions and returned the questions to me, I distributed the pretest materials to participants.

The pretest materials included (1) a brief description of the case company and industry, (2) historical sales figures including dollar sales and sales growth percentages for several years, (3) brief historical common stock price information, and (4) excerpts of

an article from a national business magazine about the company's philosophy regarding human resources and employee training. The treatment of human resource costs did not affect any of these items. The company description provided participants with useful information concerning the industry in which the company operates, thus providing contextual information. According to the professional financial analyst that I interviewed to help with the design of this task, sales levels and sales growth are important variables that analysts use to make investment judgments. The stock price information given here allows the participants to see a limited context as to the trading range of the company's common stock, information probably necessary to make equity recommendations to clients. The excerpts from the business periodical may have sensitized participants toward the human resource issue for possible treatment effects. In addition to professional guidance referred to above, Hopkins (1996, 1995) and Hirst and Hopkins (1998) include similar materials to those included in this experimental design.

After allowing the participants to analyze the information for a period of five minutes, I distributed the pretest question/answer sheet (see Appendix A) to each participant and allowed them to answer the questions. As the participants completed the pretest answer sheet, I collected it and then distributed a copy of the treatment materials-one of three sets of financial statements (see Appendix B). Again, after five minutes to allow the participants to analyze the financial statements in a preliminary way, I distributed the posttest question/answer sheet and a debriefing questionnaire, shown in detail in Appendix C. After considering the treatment information, the participants performed the

posttest. The posttest captured the same three judgments captured in the pretest, including the (1) buying judgment, (2) reliability judgment, and (3) relevance judgment.

The last step in the experiment, as depicted in Figure 2, asked participants to complete a background and debriefing questionnaire. This questionnaire contained some open-ended questions about the participants' judgments in the case, along with questions that captured personal and professional background characteristics. While the randomized, pretest-posttest design theoretically controls for the problem of confounding differences in judgments between treatment groups, the debriefing questions captured certain descriptives of all of the participants that were used as reliability checks in analyzing the data collected in the experiment. The descriptive characteristics of the financial analysts I was most interested in were the (1) level of general experience the participants had in financial analysis, and (2) level of specific experience the participants had in analyzing companies in the computer integration/consulting industry. Libby and Tan (1994) and Bonner and Walker et al. (1994) suggest that professionals may possess different schemas for making judgments, depending upon their varying experiences or expertise. Hopkins (1996, 1995) and Hirst and Hopkins (1998) also included similar background questions in their studies.

Testing the Hypotheses

Table 3 summarizes the notations used to represent each of the dependent and independent variables in the analysis of each hypothesis. The data captured during the experiment require four phases of analysis in testing H1, H2, and H3.

Table 3
List of Research Variables

Dependent variables:	
LBUYpos	Logit form of the posttest assessment that analysts will recommend their clients buy the stock represented in the case.
RELIpost	Logit form of the posttest participants' perception of the reliability of the information they receive in the case materials including the treatment financial statements.
RELVpost	Logit form of the posttest participants' perception of the relevance of the information they receive in the case materials including the treatment financial statements.
Independent Variables:	
DISC	Expense and voluntary disclosure treatment group (coded 0/1).
CAP	Capitalized historic cost treatment group (coded 0/1).
RC	Replacement cost treatment group (coded 0/1).
LBUYpre	Logit form of the pretest assessment that analysts will recommend their clients buy the stock represented in the case.
RELI*pre*	Logit form of the participants' perception of the reliability of the information they receive in the pretest phase of the experiment case materials (i.e. before receiving the treatment financial statements).
RELV*pre*	Logit form of the participants' perception of the reliability of the information they receive in the pretest phase of the experiment case materials (i.e. before receiving the treatment financial statements).
Bimport	Participants' a priori opinions concerning the importance of reliability as a quality of information (measured before pretest).
Vimport	Participants' a priori opinions concerning the importance of relevance as a quality of information (measured before pretest).

Phase one, a canonical analysis, tested the overall significance of the relationship between participants' reliability and relevance assessments of the information they receive in the case as a common set of dependent variables and the financial statement treatment groups as a common set of independent variables. This model takes the form of the following continuous logit regression:

$$\text{Y1: (RELIpost), Y2: (RELVpost)} = \beta_0 + \beta_1 (\text{RELIpre}) + \beta_2 (\text{RELVpre}) + \beta_3 (\text{CAP}) + \beta_4 (\text{RC}) \quad (1)$$

This multivariate model represents an overall protective test against committing a Type I error (confirming a hypothesis that there is a relationship between two variables when there is no relationship). The scores on the reliability and relevance assessments were converted to percentiles, then odds-ratios, and finally logit scores. Dummy variables (k-1) represented the three treatment groups on the right side of the equation above. Placing participants' pretest measures of their reliability assessments partials it out of the posttest measure and allowed the model to capture the effect of the treatments upon the change in participants' reliability and relevance judgments between pretest and posttest.[2]

The DISC group effect is captured in the constant (β_0) term, since it represents the reference group. An overall F test was used to assess the significance of the model. If the F statistic was significant at a standard level ($P < .05$), then I can say that there is some relationship between reliability and relevance as common dependent variables and the treatment groups and move on to test the independent effect of financial statement treatment upon the separate constructs of reliability and relevance. If this model were not significant, then I would have had to forgo testing H1 as it relates to reliability and relevance as separate constructs and move directly to phase three (the testing of H2).

[2] Designing the model this way allows one to address the effect of a treatment upon the dependent variable(s) by partialling the pretest measures from the posttest measures. It also avoids some construct reliability problems found commonly when using change or difference scores.

Phase two consisted of two logit regressions designed to test H1: the hypothesis (es) that participants' assessments of the reliability (relevance) of the information they receive in the case will decrease (increase) as the financial statement treatments become increasingly inconsistent with GAAP (future oriented). The models to test H1a and H1b are:

$$\mathbf{Y1\ (RELIpost) = \beta_0 + \beta_1\ (RELIpre) + \beta_2\ (CAP) + \beta_3\ (RC)} \qquad \mathbf{(1a)}$$

$$\mathbf{Y2\ (RELVpost) = \beta_0 + \beta_1\ (RELVpre) + \beta_2\ (CAP) + \beta_3\ (RC)} \qquad \mathbf{(1b)}$$

The regression coefficients in each of the models above represent the effects of the financial statement treatments upon the change in financial analyst participants' assessments of how reliable or relevant they perceive the information used in the case. T tests serve as the traditional means of testing the significance of these coefficients.[3] Consistent with Table 1, I predicted that both of the coefficients for the CAP and RC variables in model 1a (participants' assessments of the reliability of the information that they receive) would be less than the coefficient for the DISC group (the constant in the model), but the magnitude of this negative effect of the RC will be larger than the CAP effect. Also, according to Table 1 above, I expected that the coefficients for CAP and RC groups in model 1b (participants' assessments of the relevance of the information that they receive) would be greater than the coefficient for the DISC group, with the magnitude of the RC effect being greater than the CAP effect.

Phase three, another binomial logit model, tests the main effect hypothesis that the financial statement treatments are significantly related to the change in participants'

[3] I used a significance level of $p < .10$.

buying judgments, holding the analysts' reliability and relevance posttest assessments of the information they receive in the case constant (H2).[4] The model used to test this hypothesis is:

$$\mathbf{Y3\ (LBUYpost) = \beta_0 + \beta_1\ (LBUYpre) + \beta_2\ (RELIpost) + \beta_3\ (RELVpost) + \beta_4\ (CAP) + \beta_5\ (RC)} \quad (2)$$

Since I predicted that participants' buying judgments would decrease as the financial statement treatments they were assigned to violated GAAP incrementally, the signs for the regression coefficients for the treatment groups (CAP and RC) should be negative. I also investigated whether there was an incremental negative effect across the treatment groups. T-tests served as the traditional means of testing the significance of these coefficients as well.

Phase four, in the form of another binomial logit model, tested the set of conditional hypotheses, offered as H3 above. This model is:

$$\mathbf{Y3\ (LBUYpost) = \beta_0 + \beta_1\ (CAP) + \beta_2\ (RC) + \beta_3\ (RBimport) + \beta_4\ (RVimport) + \beta_5\ (LBUYpre) + \beta_6\ (RBimport\ x\ CAP) + \beta_7\ (RBimport\ x\ RC) + \beta_8\ (RVimport\ x\ CAP) + \beta_9\ (RVimport\ x\ RC)} \quad (3)$$

The directions of the hypothesized conditional (interaction) effects between analysts' preconceptions of the importance of reliability and relevance as accounting information qualities and the financial statement treatments upon the change in analysts' buying

[4] The posttest reliability and relevance judgments are the appropriate control variables to use here because these scores represent participants' perceptions of the information that they will use when performing the posttest buying judgment.

judgments are offered in the graphs at Figure 1 in the discussion of H3 above. These directional hypotheses are summarized in Table 4 below.

The appropriate test of the incremental effect as hypothesized across the treatment groups is an *F* test for an OLS version of the model. I used t-statistics to test the significance of the coefficients in this model.

Table 4
Hypothesis 3 – Coefficient Signs

Regression term	Coefficient	Direction	Between treatment effect
RBimport x CAP	β_6	negative	$\beta_6 < \beta_7$
RBimport x RC	β_7	negative	
RVimport x CAP	β_8	positive	$\beta_8 < \beta_9$
RVimport x RC	β_9	positive	

Models one, two, and three above represent tests of the research hypotheses offered in this study. In summary, with respect to H1, it was expected that analysts' reliability (relevance) assessments of the information they received in the case would be smaller (greater) as the financial statements they received in the treatment stage of the experiment increasingly violated GAAP (reflected current information about human resources). Concerning H2, I expected that analysts' would be incrementally less likely to recommend that their clients buy the stock of the company represented in the case if they were assigned to a treatment group who received financial statements that increasingly

violated GAAP. Finally, with respect H3, I expected that analysts who ranked reliability (relevance) as being a more important information quality would increasingly be less (more) likely to recommend that their clients buy the stock of the company represented in the case than their counterparts in the study who ranked reliability (relevance) as being less important. In chapter 4, I present the results of the experiment and analysis discussed above.

CHAPTER 4

RESULTS AND ANALYSIS

I present the results of the experiment part of this study in this chapter, including (1) some descriptive statistics for all of the data collected; (2) the outcome of hypothesis testing, including discussion that links the findings to the theoretical development; and (3) discussion of reliability and validity issues.

Sixty-seven portfolio managers and financial analysts (hereafter referred to as "analysts") performed the experiment. They are generally an experienced group, with an average of 10.8 years of experience. Thirty-four (53%) of the analysts are Chartered Financial Analysts (CFAs), with an average of 7.5 years of experience as CFAs. Eight (about 12%) of the professionals are Certified Public Accountants (CPAs). Most have had a good background in accounting, having taken an average of between four and five accounting classes in their college and graduate school preparation. Most of the participants are buy-side analysts/equity portfolio managers, although several are sell-side equity analysts. Table 5 contains these and other descriptive statistics for the participant demographic variables collected in the study.

Table 5
Descriptive Statistics - Demographic Variables

VARIABLE	N	MEAN	SD	MIN	MEDIAN	MAX
ACCT	67	4.7576	3.0104	0	4	10
EXPER	67	10.8110	7.4726	0	10	30
GAAP	67	5.89390	1.6434	2	6	9
KNOW	67	4.44620	1.7236	1	5	8
SEC	67	6.00000	1.5859	2	6	9
TRAIN	67	5.84850	1.4275	2	5	9
CFA	67	0.53030	0.4991	0	1	1
CPA	67	0.12120	0.3264	0	0	1
CFAYRS*	34	7.48530	6.5302	0.5	6	23

Variable Descriptions:

ACCT	Number of accounting classes participant had in college.
EXPER	Total number of years of experience particpant had as an analyst.
GAAP	Self-ranking (1-9 Likert scale) of how knowledgeable participant is with generally accepted accounting principles.
KNOW	Self-ranking (1-9 Likert scale) of how knowledgeable participant is with the computer services industry.
SEC	Self-ranking (1-9 Likert scale) of how knowledgeable participant is with SEC reporting practices.
TRAIN	Perception of "how much the company represented in the case spends on training" (1-9 Likert scale).
CFA	Participants who are Chartered Financial Analysts -CFA (coded 0/1).
CPA	Participants who are Certified Public Accountants (CPA) (coded 0/1).
CFAYRS*	If the participant is Chartered Financial Analyst, number of years as a CFA. Since only those who responded positively to the question "Are you a CFA?" answered this question, only 34 participants responded to this question.

Hypothesis Testing-Overview

In summary, the results of the study show mixed support of the hypotheses. With regard to H1, evidence was found to be consistent with H1a in that the participants' assessments of the reliability of the information they received in the case were less if they received a financial statement treatment that violated GAAP than if they received financial statements consistent with generally accepted accounting principles. While the

results of testing H1b showed that participants' assessments of the relevance of the information they received increased as they were exposed to the financial statements in the treatment materials, they increased less for the groups who received financial statements containing more current-oriented information (either the capitalized training cost or replacement cost group). In testing H2, I found evidence consistent with the hypothesis that the participants' were less likely to recommend that their clients invest in the company represented in the case if they received financial statements that violated GAAP. For H3a, the results indicated mixed support for the hypothesis that analysts' perceptions of the importance of reliability as an information quality conditioned the effect that the financial statement treatments had upon the their buying judgments. Specifically, the participants in the study who received the RC financial statements and ranked reliability as an important information highly were less likely to recommend the stock as a buy for their clients than were those who ranked reliability as less important, everything else being equal. The results related to relevance as a conditioning variable were insignificant.

Hypothesis 1

As indicated in Table 1, H1a states that analysts will increasingly perceive the information in the case as less reliable if they receive financial statements that increasingly violate GAAP than will participants who receive financial statements more consistent with GAAP. Hypothesis 1b is that analysts will perceive the information in the case as more relevant if they receive financial statements whereon the treatment of

human resource information increasingly becomes more oriented toward current information than will their counterparts who receive more traditional financial statements.

I took a two-pronged approach in testing these hypotheses. First, I calculated mean likelihood scores for both the pretest and posttest measurement of the analysts' responses to their reliability and relevance assessments across each of the three groups who received different financial statement treatments. These differences, reported in Table 6, show that participants who received the status quo financial statements (wherein training costs were expensed and disclosed consistent with GAAP) increased their reliability assessments from pretest to posttest. Conversely, participants who received either of the experimental treatments (financial statements with capitalized historic training costs or replacement cost-based human resource accounting) decreased their reliability assessments from pretest to posttest. This result is consistent with the hypothesis that analysts who received financial statements that violated generally accepted accounting principles were less likely to rank such information as being reliable.

As reported in Table 6, mean differences related to the relevance assessments of the analysts show that each of the three treatment groups ranked the information in the case as being more relevant after receiving the treatment materials. However, the group of analysts who received the status quo (expense and disclose) financial statements increased their relevance assessments more than either of the groups who received the alternative treatments of human resource information (capitalized training costs or replacement cost). This result is inconsistent with H1b that the relevance assessments of

groups receiving the more current-oriented treatments (CAP or RC) would have increased more than the group receiving the status quo statements (DISC).

Table 6
Raw Mean Likelihood Scores Across Treatment Groups

Judgment	N	MEAN	SD
Group who received the expense and disclosure (DISC) treatment			
Reliability (pre)	22	6.1818	1.7081
Reliability (post)	22	7.0909	1.3060
Relevance (pre)	22	4.8182	1.6800
Relevance (post)	22	6.8182	1.2203
Buy stock (pre)	22	4.1818	2.0151
Buy stock (post)	22	4.8182	2.2811
Group who received the capitalized historic costs of training (CAP) treatment			
Reliability (pre)	23	5.7391	1.7114
Reliability (post)	23	5.6522	2.2885
Relevance (pre)	23	5.0435	2.3641
Relevance (post)	23	6.1304	2.3799
Buy stock (pre)	23	3.8696	2.0069
Buy stock (post)	23	3.3043	1.6634
Group who received the replacement cost of human resources (RC) treatment			
Reliability (pre)	22	7.0909	1.3420
Reliability (post)	22	6.5455	2.1096
Relevance (pre)	22	5.2273	1.9744
Relevance (post)	22	6.5000	1.9940
Buy stock (pre)	22	4.6364	1.5900
Buy stock (post)	22	3.9091	1.8749

Although H1a and H1b are separate research hypotheses, reliability and relevance are related information qualities of accounting information (FASB 1980). Analysts' judgments of such qualities in this research project therefore represent a common set of dependent variables.

According to Cohen and Cohen (1983, 503), the probability of concluding that a hypothesized relationship exists when in fact it does not (Type I error) increases in multivariate analysis as one tests "several null hypotheses, one or more for each dependent variable being studied, . . . for statistical significance and individual interpretation." When engaging in multivariate analysis dealing with a set of common dependent variables and a set of common independent variables, they suggest that one should perform an overall test of the relationship between each set. They offer a method called "set correlation" as a method to test the relationship between sets of variables.

In order to guard against making a Type I error, as could have been the case by simply comparing mean likelihood scores as I have done previously, I performed Cohen and Cohen's (1983) set correlation analysis using a statistical program called SYSSTAT. This set correlation analysis was a test of the overall significance of the relationship between the analysts' reliability and relevance judgments of the information they received in the case (RELIPOST and RELVPOST) as a set of dependent variables and the financial statement treatment groups a participant could have received which include expense and disclose (DISC), capitalized training costs (CAP), and replacement cost human resource accounting (RC) as a common set of independent variables. The effect of the DISC treatment is reflected in the model below in the constant (β_0) since I used it as the reference group from which to compare the effects of the other treatments. This model also included partialing the participant analysts' reliability (RELIpre) and relevance (RELVpre) pretests from the model. The primary reason for doing this in a randomized experiment such as this one is to reduce the total unexplained variance in the

model, providing a better chance to find a hypothesized result that is present. The overall model took the form of the following continuous logit regression:

$$\textbf{Y1: (RELI}\textit{post}\textbf{), Y2: (RELV}\textit{post}\textbf{)} = \beta_0 + \beta_1 \textbf{(RELI}\textit{pre}\textbf{)} + \beta_2 \textbf{(RELV}\textit{pre}\textbf{)} + \beta_3 \textbf{(CAP)} + \beta_4 \textbf{(RC).} \quad \textbf{(1)}$$

The results reported in the first panel in Table 7 indicate that there is a statistically significant difference between the two sets of variables (the reliability and relevance assessments as the dependent variables and the three treatment groups as the independent variables). As indicated in the first panel in Table 7, the *F* test for the overall set correlation is significant ($P = 0.001$). Besides guarding against making a Type I error, there is no other research interpretation of this overall model. Since this overall test was significant, I treated the analysts' reliability and relevance assessments as separate constructs as indicated in H1a and H1b, respectively.

With respect to H1a, the results of the set correlation as indicated in the last panel in Table 7 show that there is a negative correlation between the participants' reliability assessments and being in either treatment group who received financial statements that violated GAAP (the capitalized training cost [CAP] group or the replacement cost human resource [RC] group) as compared to participants' reliability assessments of participants in the expense and disclose (DISC) group.

Table 7
Set Correlation Analysis - Reliability and Relevance Assessments

Whole Set Correlation Analysis (n = 67)

Y Variables		X Variables
RELIpost, RELVpost	vs	DISC, CAP, RC, RELIpre, RELVpre

RAO F = 3.429

df = 8.0, 122.0; Prob= 0.001; R^2 = 0.333; Shrunk R^2 = 0.243

Within basic set correlations

Dependent Variables	RELIPOST	RELVPOST
RELIPOST	1.000	
RELVPOST	0.281	1.000

Independent Variables	CAP	RC	RELIPR	RELVPRE
CAP	1.000			
RC	-0.506	1.000		
RELIPRE	-0.264	0.341	1.000	
RELVPRE	-0.020	0.080	0.047	1.000

Between basic y (col) and basic x (row) correlations

	RELIPOST	RELVPOST
CAP	-0.239	-0.090
RC	0.057	0.027
RELIPRE	0.371	0.120
RELVPRE	0.045	0.419

Estimated (from x-set) y intercorrelations (R-square on diagonal)

	RELIPOST	RELVPOST
RELIPOST	0.186	
RELVPOST	0.077	0.195

Significance tests for prediction of each basic y variable

	F-statistic	Probability
RELIPOST	3.538	0.012
RELVPOST	3.751	0.009

Betas predicting basic y (col) from basic x (row) variables

	RELIPOST				RELVPOST			
	Betas	St Error	T-stat	Prob	Betas	St Error	T-stat	Prob
CAP	-0.237	0.134	-1.776	0.081	-0.101	0.133	-0.758	0.451
RC	-0.193	0.138	-1.405	0.165	-0.094	0.137	-0.690	0.493
RELIPRE	0.373	0.123	3.037	0.003	0.106	0.122	0.870	0.388
RELVPRE	0.038	0.115	0.333	0.740	0.419	0.114	3.665	0.001

Variable Descriptions

RELIpost	logit form of the posttest participants' perception of the reliability of the information they receive in the case materials including the treatment financial statements.
RELVpost	logit form of the posttest participants' perception of the relevance of the information they receive in the case materials including the treatment financial statements.
RELI*pre*	logit form of the participants' perception of the reliability of the information they receive in the pretest phase of the experiment case materials (i.e. before receiving the treatment financial statements).
RELV*pre*	logit form of the participants' perception of the reliability of the information they receive in the pretest phase of the experiment case materials (i.e. before receiving the treatment financial statements).
DISC	Expense and voluntary disclosure treatment group (coded 0/1).
CAP	Capitalized historic cost treatment group (coded 0/1).
RC	Replacement cost treatment group (coded 0/1).

The betas reported in this last panel in Table 7 are correlation coefficients between the probability of an analyst increasing his/her reliability judgment and the analyst being in a particular treatment group. Using a single tailed t test, I can conclude that analysts in either the capitalized training cost (CAP) group ($P = 0.081/2 = .004$) or the replacement cost (RC) group ($P = 0.165/2 = 0.0825$) were less likely to increase their reliability assessments than analysts in the expense and disclose (DISC) group.

As indicated in Table 1 with H1a, it was suggested that analysts who received the replacement cost human resource (RC) treatment would be less likely to assess the information in the case as being reliable than would the analysts who received the capitalized training cost (CAP). Further analysis indicated that the capitalized training cost group and the replacement cost group were not statistically different from each other in their reliability assessments. Given this result, I found no evidence to suggest that the reliability assessments of analysts in the replacement cost group (RC) were lower than (or even different from) the reliability assessments of analysts in the capitalized training cost group (CAP).

The results of testing H1b reflected in the last panel in Table 7 show that the correlation coefficient (Beta) between the probability of an analyst increasing his/her relevance assessment (RELVPOST) and being in either the capitalized training cost (CAP) or replacement cost (RC) group was negative. In other words, as indicated with the mean likelihood scores across the groups reported in Table 6, analysts in the disclosure (DISC) group increased their reliability assessments more than did analysts assigned to either of the two alternative treatment groups. However, as indicated by the t

tests reflected in the last panel of Table 7, the differences between the correlation coefficients (Betas) of analysts' relevance assessments across the treatment groups were not statistically significant. In other words, while the relevance assessments of analysts in each of the treatment groups increased, such increases were not statistically significant between each of the groups. I cannot make any conclusions as to whether the participants who received more current information about the case company's human resources (either capitalized training costs [CAP] or the replacement cost of human resources [RC]) viewed such presentations as more or less relevant than the participants who received financial statements more consistent with GAAP.

The results with respect to testing H1 are consistent with the notion that the financial analysts in the study assigned to either the capitalized training cost (CAP) group or the replacement cost human resource (RC) group viewed the information as less reliable than their counterparts who were assigned to the expense and disclose (DISC) group. This result is consistent with Wallman (1996), Porter (1995), Bricker et al. (1995), and Previts et al. (1994), who imply that as accounting recognition departs farther and farther from GAAP, financial analysts will view such information with more suspicion, and hence as less reliable. The financial analysts who received financial statements that materially violated GAAP may have judged such information as less reliable than those who received financial statements consistent with GAAP.

While the analysts assigned to any of the three treatment groups increased their relevance assessments upon receiving financial statements, the absence of statistical differences between the groups with respect to this assessment could have resulted from

their concerns over reliability problems overshadowing or dominating any perceived incremental relevance of the current-oriented information communicated in the CAP or RC financial statements. This result would also be consistent with Wallman's (1996) assertion that reliability dominates relevance in the minds of most accountants and financial statement users.

The audit opinions included with the case materials may offer an explanation as to why the RC treatment effect was not more negative than the CAP treatment effect. The auditors represented by the report included in the capitalized training costs (CAP) financial statements mentioned, but concurred with the company's departure from GAAP. The auditors represented by the report included with the replacement cost (RC) financial statements included an exception paragraph wherein they disagreed with the departure from GAAP. The participants in the CAP group may have viewed the auditors' concurrence (complicity) with the departure from accepted accounting practice with additional skepticism, thereby reducing their reliability assessments of the treatment materials. The analysts who read the audit opinion contained in the RC treatment materials may have been more comfortable with the auditors taking exception to the departure from accepted practice and therefore attached more reliability to the rest of the information contained in the financial statements.

Hypothesis 2

With H2, the concern is with the potential negative impact that departures from GAAP might have on the likelihood that analysts would recommend that their clients buy the stock represented in the case (hereafter referred to as the "buying judgment"). Specifically, the hypothesis was that the analysts who received financial statements that violated GAAP with respect to reflecting human resource costs would be less likely to recommend that their clients purchase the stock of the company represented in the case than would their counterparts who receive financial statements more consistent with GAAP. In order to test this hypothesis, I used the binomial logit model shown below. This model holds the analysts' reliability and relevance posttest assessments constant.

$$\mathbf{Y3\ (LBUYpost) = \beta_0 + \beta_1\ (LBUYpre) + \beta_2\ (RELIpost)\ + \beta_3\ (RELVpost)} \qquad \mathbf{(2)}$$

$$\mathbf{+ \beta_4\ (CAP)\ + \beta_5\ (RC).}$$

As indicated in Table 8, an OLS version of the logit model above was statistically significant ($P = 0.0023$). The regression coefficient for the capitalized training cost (CAP) group indicated evidence consistent with the research hypothesis ($T = -2.29$, $P = 0.0253$). The regression coefficient for the replacement cost human resource (RC) group was also significant ($P = 0.0621$). While the regression coefficient for the CAP group appears to be more negative than the coefficient for the RC group, these two coefficients (groups) are not statistically different from each other ($z = -1.12817$). In other words, while the buying judgments of analysts in both the capitalized training cost (CAP) and the replacement cost (RC) groups decreased at the posttest, these groups are not statistically different from each other.

Table 8
Regression Analysis – Buying Judgment

Unweighted Least Squares Linear Regression of LBUYPOS
n = 67

Independent Variables	Coefficient	Standard Error	Student's T	P	VIF
CONSTANT	0.62092	0.30398	2.04	0.0454	
LBUYPRE	0.32196	0.11166	2.88	0.0054	1.1
RELIPOST	0.17494	0.11761	1.49	0.1420	1.2
RELVPOST	0.03168	0.11517	0.28	0.7842	1.1
CAP	-0.99409	0.43359	-2.29	0.0253	1.4
RC	-0.81448	0.42859	-1.90	0.0621	1.4

R^2 = 0.2575 Residual Mean Square (MSE) = 1.98735
Adj R^2 = 0.1966 Standard Deviation = 1.40973

Source	df	SS	MS	F	P .
Regression	5	42.0346	8.40692	4.23	0.0023
Residual	61	121.2280	1.98735		
Total	66	163.2626			

Percentile Ranks of Relationship Between the Treatment Groups and the Buying Judgment (holding other variables above constant)

Group	Percentile Rank
Expense and Disclose (DISC)	0.649240
Capitalized Training Costs (CAP)	0.406513
Replacement Cost of Human Resources (RC)	0.450463

Variable Names:

LBUYpos	logit form of the posttest assessment that analysts will recommend their clients buy the stock represented in the case.
LBUYpre	logit form of the pretest assessment that analysts will recommend their clients buy the stock represented in the case.
DISC	Expense and voluntary disclosure treatment group (coded 0/1).
CAP	Capitalized historic cost treatment group (coded 0/1).
RC	Replacement cost treatment group (coded 0/1).

Since this is a regression using the logit form of the participants' responses, I converted these logit coefficients into percentile ranks in order to make the results easier to interpret. One may interpret these percentile ranks in this study as a probability estimate as to how likely analysts were to recommend that their clients purchase the stock of the company represented in the case, given that they received one of the treatment sets of financial statements.

Table 8 contains these percentile ranks of the analysts' buying judgments across the financial statement treatment groups. These percentile ranks indicate that analysts who received the capitalized training cost (CAP) or the replacement cost (RC) treatment set of financial statements were less likely to recommend that their clients buy the stock than were the analysts who received the expense and disclose (DISC) treatment. In other words, analysts who received financial statements that did not conform to GAAP were less likely to recommend that their clients purchase the stock of the company in the case than were the analysts who received financial statements that presented human resource costs consistent with GAAP.

Finally, the testing above is also consistent with the mean likelihood scores across the treatment groups, as indicated in Table 6. Analysts in the expense and disclose (DISC) group increased their buying judgments, while analysts in both the capitalized training cost (CAP) and replacement cost (RC) groups decreased their buying judgments.

This result is consistent with Porter's (1995) notion that the accounting information consumers often favor is the standardization and consistency achieved by following rules and regulations (GAAP) over expert judgment (more current measures of value and

performance). The analysts assigned to treatment groups wherein they received financial statements that violated "the rules" (GAAP) reacted negatively to such information (i.e., they were less likely to recommend that their clients buy the case company's stock than were those analysts who received financial statements consistent with "the rules"). The results are also consistent with Bricker et al. (1995) and Previts, et al. (1994), who suggest that analysts apparently attach a risk premium to companies who depart from accounting norms. The participant analysts involved in this study were less likely to recommend that their clients purchase the stock of the company represented in the case if they received financial statements that violated GAAP in some material way.

Based upon the theory discussed previously, the analysts who received the replacement cost (RC) financial statement treatment should have been less likely to recommend a positive buy judgment than their counterparts who received the capitalized training cost (CAP) treatment. As discussed with reference to H1, the effect of the difference in the language of the audit opinion between the CAP group and the RC group may have driven the result that these two groups were not statistically different from each other. The auditors for the CAP financial statements agreed with the departure from GAAP, a conclusion with which the analysts in the experiment disagreed and likely viewed with skepticism. The auditors reflected in the RC financial statements did what they were supposed to do and disagreed with the departure from GAAP. The analysts who read this opinion may have been able to use the financial statements with less skepticism, moderating the potential incremental negative impact of the inconsistency of replacement cost accounting with GAAP.

Hypothesis 3

The last stage of hypothesis testing involved assessing the extent to whether the level of importance that analysts attached to reliability and relevance as information qualities conditioned the effect of financial statement treatment of human resource information upon their buying judgments. Porter (1995), Bricker et al. (1995), Previts et al. (1994), and Hines (1988) suggest that users often suspect that management is manipulating information when they see reporting practices that deviate from the status quo (GAAP). One would expect that as users view reliability as a more and more important information quality they would tend increasingly to discount accounting numbers as financial reporting increasingly deviates from GAAP.

Once more, proponents of HRA, including Lev (1997), Sackman et al. (1989), and Flamholtz (1985), contend that capitalizing training costs signals potentially relevant information in historic cost terms and even more so in replacement cost terms. When users adopt relevance as a predominant information quality, they will progressively value accounting numbers that are incrementally more future oriented. Because the firm used to design the experimental materials in this research is a computer consulting business which relies heavily on intellectual capital to produce revenues and because it increased its commitment to preserving such capital each year (spent more on training than the year before), the HRA literature would predict that analysts would perceive such information positively.

Hypotheses 3a and 3b were tested in the form of this model:

$$\mathbf{Y3\ (LBUYpost) = \beta_0 + \beta_1\ (CAP) + \beta_2\ (RC) + \beta_3\ (RBimport) + \beta_4\ (RVimport) + \beta_5\ (LBUYpre) + \beta_6\ (RBimport\ x\ CAP) + \beta_7\ (RBimport\ x\ RC) + \beta_8\ (RVimport\ x\ CAP) + \beta_9\ (RVimport\ x\ RC).} \quad \mathbf{(3)}$$

The results of this fully specified model showed only one of the interaction terms above as being significant. For a more simple interpretation, I eliminated the insignificant terms in the model by dropping the insignificant terms with the smallest t-statistics one by one. The results reflected in Table 8 show that the overall model is significant ($F = 4.77$, $P = 0.0005$) for the OLS version of this logit model.

The only significant interaction term in the model was of RBimport x RC. The results of the regression, reflected in Table 9, show that the coefficient of this term representing the interaction between the analysts' ranking of the importance of reliability as an information quality and the RC financial statement treatment is negative and is statistically significant. This result is consistent with H3a, as indicated in Figure 1, which suggested that analysts with higher perceptions of the importance of reliability as an information quality would be less likely to recommend that their clients invest in the company stock represented in the case if they received the RC treatment set of financial statements than would their counterparts who had lower perceptions of the importance of reliability as an information quality.

Table 9
Regression Analysis–Conditional Effects

Unweighted Least Squares Linear Regression of LBUYPOS with Conditional Variables (Interaction Terms)
n = 67

Independent Variables	Coefficient	Standard Error	Student's T	P	VIF
CONSTANT	0.84041	0.29959	2.81	0.0068	
LBUYPRE	0.30758	0.10634	2.89	0.0053	1.1
CAP	-1.34367	0.40980	-3.28	0.0017	1.4
RC	-0.73751	0.43332	-1.70	0.0939	1.5
BIMPORT	-0.11723	0.16832	-0.70	0.4888	1.8
VIMPORT	-0.15790	0.12843	-1.23	0.2237	1.3
BIMPORT x RC	-0.46553	0.17528	-2.66	0.0101	1.4

R^2 = 0.3389 Residual Mean Square (MSE) = 1.79898
Adj R^2 = 0.2728 Standard Deviation = 1.34125

Source	df	SS	MS	F	P .
REGRESSION	6	55.3238	9.22064	5.13	0.0003
RESIDUAL	60	107.9390	1.79898		
TOTAL	66	163.2630			

Percentile Ranks for the Conditional Effect of Analysts' Perceptions of Reliability as an Important Information Quality on the Relationship Between the Financial Statement Treatment Group and the Buying Judgment for the Replacement Cost Group verses the Expense and Voluntary Disclosure Group (holding other variables in the regression reported above constant)

	Perception of Importance of Reliability	
Group	Low	High
DISC	0.503150	0.699475
RC	0.514346	0.315442

Additional Variable Names

Bimport Participants' a priori opinions concerning the importance of reliability as a quality of information (measured before pretest).

Vimport Participants' a priori opinions concerning the importance of relevance as a quality of information (measured before pretest).

In order to make the results more interpretable, I converted the logit form of the RBimport x RC interaction term into percentile ranks for the top (HIGH importance placed on reliability) and bottom (LOW importance placed on reliability) halves of the range of logit scores of this term.[1] Since the only interaction in the model above related to the RC group, the percentile ranks relevant to analyze in terms of the interaction are those for the RC and DISC groups only.

These percentile ranks across the three treatment groups are reported in Table 9. As indicated, analysts in the replacement cost group who placed a high ranking of importance on reliability as an information quality were less likely (probability of about 31 percent) to recommend that their clients buy the stock of the company represented in the case than were those in the same group who ranked reliability as less important (probability of about 51 percent). In other words, as analysts ranked reliability as a more important information quality, they negatively conditioned their buying judgments in the case if they received the replacement cost (RC) treatment as compared to the analysts in the expense and disclose group.

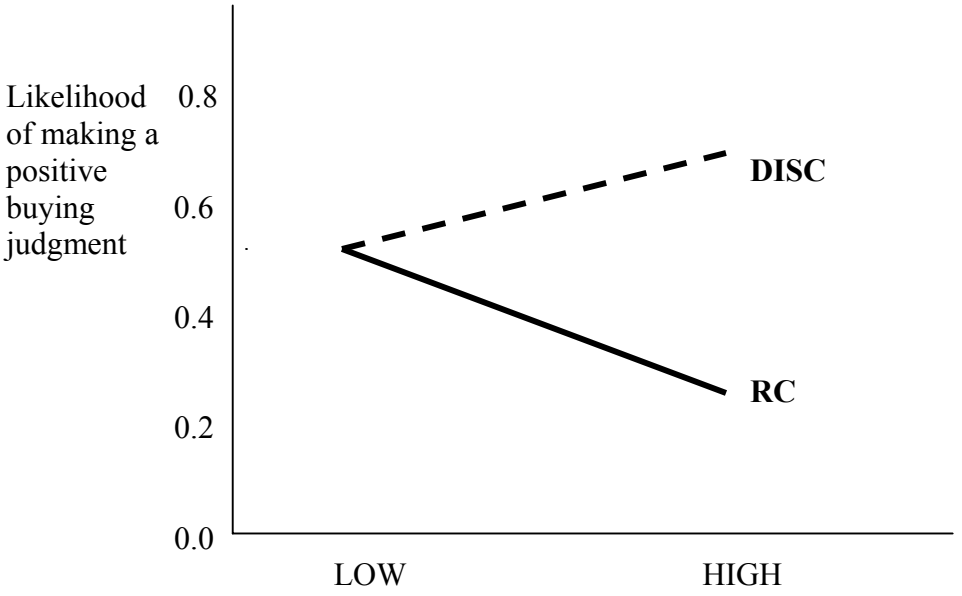
This conditioning effect is represented graphically in Figure 3. As shown in the graph, the analysts in the replacement cost (RC) group were less likely to recommend that their clients buy the stock if they ranked reliability as a more important information

[1] In order to calculate these percentile ranks, it was necessary to convert the treatment group dummy variables (each coded as 0/1) to a contrast variable (coded 1, 0, -1) and rerun the regression using an interaction term with the participants' perceptions of reliability (BIMPORT) with this contrast variable. Coding the interaction term in this way isolated the effect of the RC as compared to the DISC group, holding the main effect of the CAP treatment constant.

quality than their counterparts who ranked reliability as less important, as compared to analysts in the expense and disclose (DISC) group.

Figure 3
Hypothesis 3 Results

Conditional Effect of Analysts' Perceptions of Reliability as an Information Quality on the Relationship Between the Financial Statement Treatment Group and the Likelihood of Making a Positive Buying Judgment (RC verses DISC).



HRA proponents such as Flamholtz (1985), Elliot (1991), Wallman (1996), and Lev (1997) maintain that capitalizing training costs would provide information as to management's expectations concerning the future benefit of incurring costs to enhance a workforce, thereby providing information content beyond the current practice of

expensing such costs immediately. Since the firm represented in the case materials increased its training expenditures annually, capitalizing such costs might signal positive information.

On the other hand, Bricker et al. (1995) and Previts et al. (1994) and suggest that analysts may assess the degree to which managers attempt to manipulate accounting information such as earnings. *Ceteris paribus*, analysts may associate more accounting risk and therefore higher performance expectations to firms capitalizing human resource costs, particularly if capitalizing such costs reduces expenses and increases income and assets. Replacement cost accounting is based upon hypothetical events or expenditures. The financial analysis earnings quality literature, along with Porter's (1995) notion of following a "faith" of standardized accounting treatment, suggest that financial analysts would view capitalizing hypothetical current human resource costs negatively.

This finding is not consistent with the assertions made by human resource accounting proponents such as Sackman et al. (1989) and Flamholtz (1985). These authors maintain that capitalizing the historic costs of expenditures on human resources, like training, and replacement cost-based human resource accounting models communicates meaningful information about a company's investment in its workforce. According to this theory, a company that increases its investment in human resources over time should signal positive information concerning its future cash flows. Instead, the evidence is consistent with Porter's (1995) suggestion that users of accounting information prefer consistency with accepted standards to reporting based upon expert judgment. This evidence also supports Wallman's (1996) claim that reliability has come to dominate relevance as the

key recognition criterion in financial reporting. Finally, the evidence also supports Bricker et al. (1995) and Previts et al. (1994) suggestion that analysts will react negatively to violations of GAAP as examples of management manipulation of firm performance, thereby increasing the information risk associated and impairing the "earnings quality."

Internal Validity Checks

While the design of this experiment included randomizing the assignment of participants into one the three financial statement treatment groups, there is still the possibility that the experimental groups might, by chance, differ in some relevant way that could impact the results of the hypothesis testing. To help assess this threat, the participants reported several background variables, listed in Table 10, for which I could calculate potential mean differences across the experimental groups.

Since the judgment literature in psychology and accounting has found that expertise affects judgment, several of the items on the background questionnaire captured proxies of the participants' expertise in financial analysis. These variables include: (1) whether the participant is a Chartered Financial Analyst (CFA); (2) if so, how many years as a CFA (YRS CFA); (3) total years of experience as a financial analyst (EXPER); and (4) a ranking of the participant's knowledge of the computer services industry (KNOW). Since the case also deals with accounting principles, I collected several proxies for expertise in accounting knowledge, including (1) whether the participant is a Certified Public Accountant (CPA); (2) number of

accounting classes the participant took in college (ACCT); and (3) a ranking of knowledge of generally accepted accounting principles (GAAP). Since the design of the experiment also included an SEC reporting issue in that the commission does not allow a company to file financial statements that contain a qualified opinion regarding an accounting principle dispute (see CAP and RC group audit opinions), I also asked participants to rank their knowledge of SEC reporting issues (SEC).

One-way analysis of variance (ANOVA) tests served to assess whether any of the groups of analysts assigned to the three financial statement treatment groups differed from each other significantly in their demographic characteristics. The average number of accounting classes that analysts in the DISC had taken was smaller than the number of classes taken by participants in the other two groups. Also, by chance, six of the participants who were CPAs were in the RC group. While the number of accounting classes and analysts who were also CPAs differed statistically across the treatment groups, placing these variables in the models used to test the research hypotheses showed that neither of them changed the significance or direction of the research results discussed previously.

Table 10
Demographic Variables Across Treatment Groups

Descriptive Statistics for DISC Group

VARIABLE	N	MEAN	SD	MIN	MAX
ACCT	22	3.3072	2.1159	0.0000	10.000
CFA	22	0.4545	0.5096	0.0000	1.0000
CFAYRS	10	8.0000	6.4118	1.0000	19.000
CPA	22	0.0455	0.2132	0.0000	1.0000
EXPER	22	10.491	6.8915	1.0000	25.000
GAAP	22	5.4043	1.2947	3.0000	8.0000
KNOW	22	4.3839	1.6469	2.0000	7.0000
SEC	22	5.5909	1.8168	2.0000	8.0000
TRAIN	22	5.9022	1.4444	4.0000	8.0000

Descriptive Statistics for CAP Group

VARIABLE	N	MEAN	SD	MIN	MAX
ACCT	23	5.2174	2.9993	2.0000	10.000
CFA	23	0.6522	0.4870	0.0000	1.0000
CFAYRS	14	8.2500	6.7958	0.5000	23.000
CPA	23	0.0435	0.2085	0.0000	1.0000
EXPER	23	12.9350	8.0146	0.5000	30.000
GAAP	23	5.8696	1.7137	3.0000	9.0000
KNOW	23	4.5455	1.3355	2.0000	7.0000
SEC	23	6.1739	1.6139	4.0000	9.0000
TRAIN	23	5.9565	1.6646	2.0000	9.0000

Descriptive Statistics for REPLACEMENT COST Group

VARIABLE	N	MEAN	SD	MIN	MAX
ACCT	22	5.7273	3.3407	2.0000	10.000
CFA	22	0.4545	0.5096	0.0000	1.0000
CFAYRS	10	5.9000	6.6742	1.0000	20.000
CPA	22	0.2727	0.4558	0.0000	1.0000
EXPER	22	8.9091	7.2022	0.0000	28.000
GAAP	22	6.4091	1.7904	2.0000	9.0000
KNOW	22	4.4091	2.1965	1.0000	8.0000
SEC	22	6.2273	1.2699	3.0000	9.0000
TRAIN	22	5.6818	1.1705	4.0000	8.0000

Variable Descriptions (all self-reported demographic variables):

ACCT	Number of accounting classes the participant took in college (self-reported)
CFA	Is the participant a Chartered Financial Analyst (CFA)?
CFAYRS	If a CFA, how many years the participant has been a CFA?
CPA	Is the participant a Certified Public Accountant (CPA)?
EXPER	Total number of years the participant has been a financial analyst.
GAAP	Ranking of participants' knowledge of generally accepted accounting principles.
KNOW	Ranking of participants' own knowledge of the computer industry.
SEC	Ranking of participants' own knowledge of SEC reporting procedures.
TRAIN	Ranking of amount the company spends on training above average.

Validity and Reliability of Constructs

In order to help assure the construct validity of the participants' reliability and relevance assessments of the information they received, I provided them with a definition of both terms from the FASB (1980) conceptual framework for accounting concepts. These definitions were present each time the instrument prompted participants for responses related to the terms. Specifically, they had the definitions available when they reported (1) their opinions as to the importance of reliability and relevance as information qualities and (2) their assessments of the reliability and relevance of the information they received in the case materials during both the pretest and posttest phases of the experiment.

Also, as indicated in the results of the set correlation reflected in Table 7, the relationship between the pretest and posttest scores of both the reliability and relevance assessments that the analysts made during the experiment are positive and statistically significant, holding the treatment group effects constant. If the reliability and relevance measures were not reliable, they would not correlate with each other. Initially, one might expect that the pretest and posttest scores would not correlate with each other because H1 indicated a between-group effect (i.e., that the posttest responses of analysts would differ as a result of being assigned to one of the treatment groups). However, by putting the treatment groups in the model, I partialed their effect out of the relationship between the pretest and posttest in the model. The relationship then between the pretest and posttest scores offers some measure of statistical reliability.

Similarly, I assessed the construct validity and reliability of the buying judgment responses by examining the correlation between the pretest and posttest measures captured during the experiment. As indicated in Table 8, the regression coefficient on the logit form of the pretest buying judgment is positive and statistically significant. This relationship between the pretest and posttest measurements of the buying judgments is consistent with the hypothesis that the analysts who performed the case made similar assessments during both the pretest and posttest phases of the experiment.

Finally, as part of the demographic questionnaire, I asked the participants to agree or disagree (along a 9-point Likert scale) with the statement that the firm represented in the case spent an above-average amount on training (TRAIN). If each of the experimental treatments contained relatively similar information about the firm and differed only with respect to how that information was reported in the financial statements, one would expect that each group answered this question similarly. A one-way analysis of variance of TRAIN across the three treatment groups showed no statistical difference in answering this question ($F = 0.22$, $P = 0.80$). This result is consistent with the hypothesis that if the analysts viewed the financial statement treatments differently, they did not do so with respect to the information communicated with respect to the underlying training costs associated with the case materials.

CHAPTER 5

INTERPRETATION AND IMPLICATIONS OF RESULTS, CONTRIBUTIONS, LIMITATIONS, AND EXTENSIONS

Included in this chapter is an interpretation of the results of the experiment and a discussion of some potential implications of this study. Specifically, I offer some direction as to how the results of this research imply that the accounting profession must try to change accounting language to refer to expenditures in human resources as "assets" as opposed to "costs." While the results here indicate that capitalizing such expenditures on the balance sheet might be met with resistance among users such as financial analysts, an incremental language change might be a necessary first step to facilitate adaptation to an information age. This study also suggests that the language used in audit opinions may have to change. I also discuss potential limitations and contributions of this study. Finally, there are some suggestions for future extensions of this study.

Interpretation of Results

Overall, the results of the study indicate that the analysts I studied reacted negatively to financial statements that violated GAAP in the presentation of human resource costs (either the capitalized training cost treatment or the replacement cost human resource treatment) as compared to analysts who received financial statements consistent with GAAP (training costs were expensed and disclosed voluntarily). This generalization

holds for the reliability assessments that the participants made about the information they received in the case (H1a), as well as the buying judgments they made about the stock of the company represented in the experimental case materials (H2 and H3a).

Hypothesis 1–Reliability and Relevance Assessments

The results related to H1 indicate that the analysts who were in either the capitalized training cost (CAP) or the replacement cost (RC) groups were less likely to rank the financial statements they received in the case materials as reliable than were the analysts in the expense and disclosure (DISC) group. As indicated in Table 6, the mean likelihood scores of the analysts making the reliability assessment decreased for both the capitalized training cost (CAP) and replacement cost (RC) groups, while it increased for the expense and disclosure (DISC) group. In addition, the correlation coefficients (Betas) between the probability of an analyst increasing his/her reliability assessment and being in either the CAP or RC group were negative and statistically significant when compared to the DISC group. These negative correlation coefficients are consistent with the interpretation that the groups who received the financial statements that violated GAAP lowered their reliability assessments relative to the analysts in the DISC group. These results are consistent with the prediction I made with respect to H1a.

Like the accountants that Porter (1995) discusses, the financial analysts studied here seemed insecure about more current-oriented financial reporting frameworks for human resources that rely on expert judgment in assessing value on the financial statements. Consistent with Wallman's (1996) observations that the accounting profession is

preoccupied with reliability as a recognition criterion, the analysts here viewed the information as reliable if it was consistent and as less reliable if it was inconsistent with accepted accounting practice.

Contrary to the finding I predicted in H1a (see Table 1), I found that while the reliability assessments of both groups who received the experimental treatments (CAP and RC) were statistically different from the reference group, they were not statistically different from each other (CAP = RC). As noted in Table 1, it was hypothesized that the RC groups' reliability assessments would be lower than the CAP groups' assessments. This part of H1a was not consistent with the findings.

One might interpret this result in several ways. One might hastily conclude that the participants in the study felt that a replacement cost framework in accounting for human resources is more consistent with the accounting profession's definition of reliability than is the CAP treatment. Since this interpretation makes no sense when one considers that the definition of reliability that the accounting profession has adopted is the same one that I used to prompt the analysts in the study, one must search for other possible interpretations.

The most interpretable explanation of this result that remains consistent with the theory offered to justify H1a, briefly discussed in chapter 4, is that the participants who received the replacement cost (RC) treatment found some measure of security in the audit report they received in the treatment materials. This audit report (Appendix B) included an exception paragraph wherein the auditors disagreed with management's use of replacement cost accounting. This report is unlike the one included in the CAP treatment

wherein the auditors discussed but concurred with the alternative treatment of capitalizing the training costs incurred by the firm (Appendix B).

Users who received the CAP treatment may have viewed the entire treatment financial statements with greater skepticism since the auditors went along with managements' violation of GAAP instead of doing what auditors "should have done" – take exception to the violation. This interpretation is consistent with Porter's (1995) notion that accounting information derives its aura of objectivity through standardization and consistency with rules rather than through the judgments of experts like auditors reporting on the effects of alternative accounting treatments.

This result from the participants' reliability assessments is also consistent with Bricker et al. (1995), Eccles and Mavrinac (1995), and Previts et al. (1994), who suggest that financial analysts view financial reports that violate GAAP as lowering the quality of reported earnings. Therefore, they will assign more information risk and discount the value of the firm. Said more directly with respect to the present research question, they will view the information as less reliable if it violates GAAP. These results are also consistent with Wallman's (1996) observation that the elements of reliability serve as the key recognition criterion to accounting practitioners and hence to accounting users.

While all of the experimental groups increased their relevance assessments from pretest to posttest (see Table 6), the analysts who received the current-oriented financial statements (either the CAP or RC treatments) did not increase their relevance assessments as much as the expense and disclosure (DISC) group. The lack of statistically significant results consistent with my prediction in H1b that the relevance assessments would

increase incrementally for the CAP and RC groups is subject to several possible interpretations. One explanation is that the instrument did not adequately test the relevance assessments of the participants. The information included in the instrument used in the experiment does not represent all of the information that financial analysts use in assessing the performance of companies. They may associate other types of information as being more relevant than accounting information in their duties. Participants could have been confused by the task in some way or unfamiliar or uncomfortable with the accounting definition of relevance.

Another explanation that is consistent with the theoretical development offered in this study is that reliability may be so important to financial statement users that it overshadows relevance as the most important qualitative characteristic. The groups of analysts who assessed the relevance of the alternative accounting treatments (CAP and RC) may not have been able to do so independently of their reliability assessments. In other words, they may have been so preoccupied by reliability issues that they could not perform an independent relevance assessment. This result is consistent with Wallman's (1996) assertion that accounting recognition is dominated by reliability and that relevance has almost become a non-issue.

As part of the experimental materials, I asked the participants to give open-ended responses as to why they changed (or did not change) their reliability and relevance assessments. Investigating these open-ended responses, listed in complete form in Appendix E, gives some insight into why the participants responded to the treatment materials as they did. Of the analysts assigned to the capitalized training costs (CAP)

group, 10 out of 23 (43%) made negative references to the accounting departure in discussing their reliability assessments. For example, subject 10 explained that the financial statements "are not free from bias." Subject 18 suggested that he/she was concerned about the overall quality of the information received because the financial statements contained GAAP violations that the auditors had to address. Subject 25 suggested that the "departure from accepted accounting . . . reduces reliability" and comparability. Subject 38 wrote, "One may suspect that other accounting irregularities may exist." Subject 55 noted that the "auditor agreed" with the GAAP violation. Subject 61 referred to "general suspicion regarding accounting policy."

Nine out of the 22 (about 41%) analysts assigned to the replacement cost (RC) group included negative statements about the accounting departure in discussing their reliability assessments. However, they seemed to cast more doubt or blame on management than the auditors. In fact, some of these subjects implied that the audit opinion contained in the financial statements mitigated the reliability problems created by management's taking too much leeway in capitalizing the replacement cost human resource asset. For example, subject 36 listed "the report from the independent auditors" as a source of information about the accounting irregularity and the reason why he/she decreased the reliability assessment.

Also, a good number of analysts in the replacement cost (RC) group who either did not change or increased their reliability assessments mentioned the positive impact that the audit report made on their reliability assessment. This indicates that they may have interpreted the exception that the auditors made with respect to the accounting treatment

of the replacement cost human resource asset as enhancing the reliability of the information they received in the case. This may, in part, explain why the analysts in the replacement cost (RC) group did not rank the financial statements they received as being less reliable as compared to the analysts in the capitalized training cost (CAP). In other words, the analysts in the CAP group may have tended to view the audit report as creating more suspicion regarding the financial statements, while the analysts in the RC group may have viewed the audit report as enhancing reliability.

In contrast, many of the analysts in the expense and disclose (DISC) group actually increased their reliability assessments. Many of the analysts in this group referred to the reliable nature of "numbers," "financial statements," or "audited financial statements." Interestingly and atypically, one of these participants, subject 40, suggested that the "audited financials increased [my] opinion of reliability, but [I] would have felt better if company had capitalized training costs."

The analysts' open-ended question as to why they changed (or did not change) their relevance assessments may also help explain why I did not find statistically significant differences among the three experimental groups (DISC, CAP, and RC) with respect to their relevance assessments. Some of these responses indicate that the analysts' relevance assessments seem to have been overshadowed by their reliability concerns if they received either the CAP or RC treatment materials. Six analysts in the CAP group mentioned the negative aspects of the accounting principle departures in their relevance assessments. For example, subject 38 stated, "The information is relevant, but this is

mitigated by its lack of reliability." Similarly, subject 47 wrote, "This information is very relevant in making decisions about companies to buy-but it also must be reliable."

Analysts in the replacement cost (RC) group mentioned reliability concerns in discussing their relevance assessments. Subjects 1, 15, 20, 51, and 65 implied that the accounting departure affected their relevance assessments negatively. Conversely, several of the analysts in this group (subjects 9, 24, 36, and 57) indicated that the information was very relevant *because* it allowed them to see the accounting departure; that is, it is relevant because it changed their opinion about the company negatively.

Hypothesis 2 – Buying Judgment

The mean differences reported in Table 6 and the percentile ranks reported in Table 8 are consistent with H2. Specifically, the analysis of the results of the experiment was consistent with the hypothesis that the analysts who received either the capitalized training cost (CAP) or replacement cost (RC) financial statements were less likely to recommend that their clients buy the stock of the company represented in the case than were their counterparts who received the accounting treatment consistent with GAAP (the expense and disclose (DISC) group). This result is consistent with the theory used to justify the hypothesis (Bricker et al. 1995; Porter 1995; and Previts et al. 1994) and conflicts with the views of human resource proponents (Sackman et al. 1989; Flamholtz 1985).

The results are inconsistent with the arguments made by human resource proponents who maintain that capitalizing training costs as assets or capitalizing the replacement cost

of human resources would provide value relevant information to users. If HRA proponents are correct, I should have observed that the analysts in the case would react positively to the alternative accounting treatments. Both the CAP and RC treatments communicate positive expectations of management regarding the future value associated with maintaining a workforce. From an accounting perspective, the CAP and RC treatments reflected higher incomes, including higher earnings per share and return on assets and equity ratios.

Instead, participants reacted more in line with the suggestions of Bricker et al. (1995), Porter (1995), and Previts et al. (1994). These authors either suggest outright or imply that financial analysts would view departures from GAAP with suspicion and skepticism. According to the financial analysis literature, one of the tasks that analysts perform is to assess the quality of earnings. Accounting income reported in a manner that is consistent with GAAP is said to have a higher quality than income calculations that violate GAAP, everything else being equal. Because capitalizing either training costs or the replacement cost of human resources depart from accepted accounting practice, the analysts who received such statements were less likely to recommend that their clients invest in the company represented in the case. Although these alternative treatments impacted the accounting metrics listed in the previous paragraph in a material, positive manner, the participants in the CAP and RC treatment groups were less likely to recommend the stock as an investment when compared to the DISC group.

Again, the comparison of the capitalized training cost (CAP) group to the replacement cost (RC) group seems, at least at first glance, to be inconsistent with the research

hypothesis that participants assigned to the latter should be less likely to recommend the stock to their clients than participants assigned to the former group. I suggested this incremental negative effect on the RC group since the replacement cost financial statements not only violate GAAP but they violate the exchange-based historic cost accounting model upon which GAAP rests. Instead, although both groups were statistically less likely to recommend that their clients invest in the company represented in the instrument than the expense and disclose (DISC) group, they were not statistically different from each other in the likelihood scores for the buying judgment.

Like the results related to H1a, the audit report for these two groups probably drove the result that analysts in the replacement cost (RC) group were not less likely to recommend that their clients buy stock than the analysts assigned to the capitalized training (CAP) group. The audit opinion differences across the two groups may have confounded the financial statement differences across the two groups. Since the auditors represented in the RC treatment financial statements took exception to the replacement cost approach, participants assigned to that group may have been able to view the financial statements with less suspicion and skepticism than the group who received the CAP financial statements with which the auditors concurred. If this is correct, then the participants who received the RC treatment may have been able to view the company with less risk since the auditors took exception to the GAAP violation instead of concurring with it, as in the CAP treatment.

Again, as part of the debriefing questionnaire given with the posttest materials, I asked participants to explain why they changed (or did not change) their buying

judgments after receiving the second set of materials. The analysts' responses to this question can be seen in their entirety in Appendix E. However, some discussion of these responses is useful here in explaining why the analysts responded to the buying judgment as they did.

Of the participants in the capitalized cost group, 14 analysts (subjects 10, 17, 18, 25, 28, 32, 37, 38, 49, 55, 58, 61, 63, and 67) mentioned that the accounting departure weighed negatively on their buying judgments. Of these analysts, several specifically mentioned the auditors going along with the accounting departure as explanations for their buying judgments. Twelve analysts in the replacement cost (RC) group (subjects 1, 9, 20, 24, 30, 31, 33, 36, 42, 57, 59, and 65) also included statements about how the accounting departure had a negative impact on their buying judgments. Subjects 20 and 57 included references to the auditors, saying that the opinion helped them confirm their negative opinions about the company capitalizing the replacement cost of human resources.

Hypothesis 3-The Conditioning Effect of Analysts' Preconceptions of the Importance of Reliability and Relevance as Information Qualities.

Consistent with H3a, results of the experiment indicate that financial analysts who placed a high level of importance on reliability as an accounting information quality were less likely to recommend that their clients invest in the company represented in the case than were participants in the same group who placed relatively less importance on reliability as an accounting information quality. As indicated by the percentile ranks in Table 9, the analysts who ranked the importance reliability as an information quality

highly reacted more negatively to the replacement cost financial statements than did their counterparts in the same group who ranked reliability as less important. In other words, as Figure 4 shows graphically, participants' perceptions of the importance of reliability as a quality of accounting information may have negatively conditioned the effect that the violation of GAAP in presenting a human resource asset based upon hypothetical replacement costs had on participants' buying judgments. This conditional effect was not apparent (i.e., statistically significant) with the CAP group as the main effect predicted in H2 held with this group.

This result is consistent with the notion that participants who value reliability as a recognition criterion will view GAAP violations more skeptically if the violations are not only in accounting treatment but are also departures from the basic historic cost model. While I held the analysts' rankings of the importance of reliability constant in the model as a separate construct, the interaction between the rankings of reliability and being in the replacement cost (RC) group was significant. The results here are consistent with the notion that the aura of objectivity is achieved through standardization and consistency with reporting rules. Analysts who perceived reliability as a critical qualitative characteristic rejected the current-oriented replacement cost treatment of human resources on the financial statements. For those who perceive reliability as an especially important information quality, exception paragraphs of auditors such as the one contained in the replacement cost materials may not be enough to assure reliability in the financial reporting process.

As stated in chapter 4, the interaction term of capitalized training cost (CAP) and analysts' perceptions of reliability as an important information was not statistically significant. This result is inconsistent with the research hypothesis that the analysts' perceptions of reliability should have negatively conditioned their buying judgments. The negative effects of the audit opinions on the analysts' buying judgments in the capitalized training cost (CAP) group may have been great enough to make even those with relatively lower rankings of reliability be less likely to recommend that their clients buy the stock represented in the company.

Finally, neither of the interaction terms of treatment groups (CAP or RC) and perceptions of relevance as an information quality was statistically significant. This result is inconsistent with the research hypothesis that analysts with higher perceptions of relevance as an information quality would be more likely to recommend that their clients buy the stock represented in the case than would their counterparts with lower perceptions about the importance of relevance. The lack of significant results here could have occurred because the reliability concerns many of the participants had about the CAP or RC financial statements overshadowed the potential incremental relevance that such financial statements may have contained. The lack of results in the hypothesized direction here may also be explained by analysts' interpreting the accounting departures as negative information about future expectations. As mentioned earlier, several of the analysts in both the capitalized training cost (CAP) and replacement cost (RC) groups suggested that the audit opinion, highlighting a violation with accepted accounting practice was very relevant information. Instead of interpreting the information about the

replacement cost of human resources positively, as suggested by human resource accounting proponents such as Flamholtz (1985), they may have interpreted the accounting departure as "relevant" information suggesting negative future expectations about firm returns.

Implications of Results

The results found here were likely due, in large part, to the audit opinions contained in the treatment materials. Thus, the potential implications of the results should be limited. However, despite the potential unintended consequences of the audit opinions overpowering the human resource accounting operationalization on the financial statements, this study still provides accounting academia and practice with some interesting implications.

Interpretation of the hypothesis testing across all three hypotheses, along with responses to the open-ended questions discussed earlier, implies that the audit opinion was important to the analysts who participated in the study. The participants took the time to read and then react to the language contained in the audit opinion. This provides evidence that the attestation function matters to an important user group such as analysts. However, attempts of the auditing profession to imply that opinion letters are useful because of the expert judgment they communicate may be suspect. Analysts in this study seemed to react positively to the language in the audit opinion if it was consistent with adherence to GAAP rather than if it contained expert information about the company's financial position and results of operations.

The results related to H1 one indicate that objectivity and reliability, defined and reified as recognition criteria, may continue to affect how users react to financial reporting concepts that they find are inconsistent with current accepted practice. This result is consistent with Wallman's (1996) assertion that reliability is the dominant qualitative characteristic in accounting. Analysts in the study interpreted the reliability as the application of strict rules provided by accepted accounting practice. Such an interpretation may have influenced the analysts' view of the importance of relevance.

The results related to the buying judgment indicate that users may continue to perceive objectivity as achieved through standardization and rule compliance rather than through the application of expert judgment in financial reporting. Standardization and following rules seem to be more important than expertise to financial statement users when they assess audit opinions. If analysts who received the capitalized training cost (CAP) treatment had reacted positively to the auditor's concurrence with the alternative accounting treatment, they would have accepted the expert judgment contained in the audit opinion. Instead, they reacted negatively to the auditors, attempting to apply such judgment in justifying a departure from generally accepted accounting principles.

I found this result surprising since financial analysis and investment management is a subjective process. Analysts are, in general, quite comfortable using subjective material to perform their work. Quite often, these analysts use discussions with management, economic forecasts, and intuition as key inputs for providing investment advice. This tolerance for subjective material seems much more limited when analyzing financial statements and auditors' opinions concerning financial statements.

The apparent reactions of the analysts may imply that the auditing profession should examine the language it uses and how such language may affect the decisions of financial statement users. I used Rule 203 (AICPA, 1998b) to write the audit opinion included in the CAP financial statements. This rule, part of the AICPA's code of conduct, suggests that auditors should concur with a departure from generally accepted accounting practice in cases in which complying with accepted practice would result in a misstatement of the financial position of a firm. This indicates that the auditor should at times apply expert judgment rather than apply "the rules" in trying to achieve objectivity and information usefulness. However, as Porter (1995) implies, the accounting profession may have stressed rule compliance over expert judgment to the extent that users of accounting information and audit reports may not accept circumstances when auditors attempt to apply expert judgment in place of standardization and strict accounting principle compliance.

From a postmodern perspective, this study may indicate that the accounting profession needs to experience a language shift that would allow recognition of expertise. Specifically, related to human resource maintenance, the profession should shift away from referring to expenditures on enhancing a workforce as "costs" and toward referring to such expenditures as "assets" and "investments." Using the word "cost" to describe efforts to enhance a workforce is antithetical to what management should do to maintain human capital in an uncertain environment. Cost has a negative connotation with respect to company profitability, while "investment" is vital to achieving profitability.

Given the results in this study indicating resistance to using such language on the face of the financial statements (recognizing such expenditures as assets on the balance sheet), this shift may begin in the language contained in accounting disclosures related to human resources. Accountants might be able to begin referring to spending on training and other efforts to enhance a workforce as an investment, or asset, rather than merely as a cost or expense in footnote disclosures.

If capitalizing training costs or a replacement cost human resource asset model were accepted accounting practice, several of the analysts may have reacted differently to the treatments. As time allowed, I engaged the analysts in a short debriefing conversation about the study. As part of this conversation, I asked participants if their answers would change if capitalizing human resource costs was a common practice in financial reporting overall, or specifically in high-tech, knowledge-based industries. While most expressed continued skepticism, a few of the analysts said they would probably have had no problem with the firm in the case capitalizing such costs if it were an accepted accounting practice generally or specifically for knowledge-based industries.

Contributions

This study makes several contributions to the accounting literature. As stated in chapter 1, Elliot (1991) and Reich (1992) assert that financial accounting should recognize investments in human resources as assets on the financial statements. Results found here are consistent with the notion that an important user group, financial analysts, may continue to react negatively to recognizing such costs as assets on the face of the

financial statements. While the results here are limited to human resource accounting models presented in the treatment materials, the general implication may prove ameliorative in addressing similar reporting issues such as research and development costs and other intangible assets not easily defined in terms of exchange values.

Another contribution to the accounting literature lies in the integration of the HRA literature, represented primarily by articles in the 1960s and 1970s, with the financial analysis literature of the 1980s and 1990s. This study represents an attempt to investigate the extent to which the presence of training costs and other information regarding a firm's human resources, presented in alternative accounting treatments, may affect practicing financial analysts' judgments about a particular firm.

The research also represents a novel attempt at introducing a postmodernist perspective into the accounting theory literature related to accounting usefulness. The study implies that language used in financial statements and audit reports is important to users such as financial analysts. Effecting change in accounting language is necessary as "economic reality" changes. For example, as economies and industries change, requiring firms in knowledge-based industries to rely more on human resources and knowledge capital for long-term success, accounting language should adapt to reflect such change. Also, as business practice changes rapidly in certain industries, the audit function in society must include more than a mere affirmation that a firm did or did not follow accounting rules. Auditors must try to adapt the language they use in attesting to financial statements to include the ability to exercise judgment when a firm's market or business environment varies so as to make rules and standards obsolete.

Limitations

This study has several limitations. On a conceptual level, the accounting methodology or language change with respect to HRA proposed here represents a small modification that does not go beyond the entry value, exchange-based, historic cost accounting model. The accounting prescriptions suggested by the results found here are limited to suggesting that more disclosure of human resource information may be beneficial in starting to address the deficiencies of the present financial reporting model. While the historic cost model is inherently archaic, at least from a more progressive, institutional view, more change may be experienced if the profession at least starts to acknowledge that human capital exists by disclosing information related to it.

Human resource accounting proponents who are looking for evidence that suggests that financial analysts may be ready for an accounting revolution will be disappointed with the results found here. These results suggest that resistance to any change except for disclosing the cost of human resource investments is strong. From a postmodern institutional perspective, effecting small incremental modifications to the language of financial reporting may allow us to include information about human resources that might help investors, employees, and other users assess a company's ability to maintain an effective workforce over the long term.

I conducted the experiment sessions in the participants' places of business, so they were limited in both the type and amount of information they use typically to make investment recommendations and the time they took to evaluate the case materials. Given more time or more information they use typically in making investment

recommendations to their clients, the participants' assessments and likelihood rankings may have been different from those found here. These threats to the internal validity of the study limit the interpretation and implications of the results of this research.

Also, as alluded to earlier, there may be a potential construct validity problem with respect to the experiment. Since the auditors' reports across each treatment group differed, the information contained therein probably contributed to the effect seen across the financial statement treatment groups. With respect to H1, I predicted that the participants who received the RC financial statements would view their information as less reliable than the CAP group because the RC treatment was farther removed from accepted accounting practice. As stated earlier, since the hypothetical audit opinion contained in the RC treatment materials took exception to the GAAP violation while the opinion in the CAP treatment materials concurred with the GAAP violation, the participants may have been reacting to the audit opinions rather than the financial statements specifically.

There is also the potential that the results I found were novelty effects. Financial analysts do not typically see historic training costs capitalized as an asset in the financial statements nor hypothetical replacement cost models of such concepts. Also, the vast majority of audit opinions they may encounter in financial statement analysis contain no exception paragraphs, let alone applications of "Rule 203" exceptions (AICPA, 1998b). In other words, the financial analysts in the study may have simply reacted to the information just because it was new or unique to them, rather than because it was more or less useful. Demand and novelty effects are almost always potential criticisms of

laboratory behavioral research in the social sciences since an experiment is, by nature, an abstraction of a more natural context within which participants make decisions. If such results were duplicated over time, they may be useful in attempting to change accounting and auditing praxis.

Future Research

One area for potential future research from this dissertation would be to explore other changes in the accounting vocabulary (language) with respect to intellectual capital. Writers from both the mainstream camp (Stewart 1998) and the institutional camp (Reich 1992) suggest that knowledge workers more closely resemble constituents like investors rather than assets. A behavioral study that explores the implications of models that account for knowledge workers as sources of capital, (i.e., on the right-hand side of the balance sheet) rather than a financial resource would provide an interesting extension to this research.

Another direction for future research is the potential to integrate Porter's (1995) work concerning objectivity in accounting into the critical and behavioral accounting literature. Porter's observations concerning objectivity and quantification offer an extension of the social constructionist and more radical accounts of accounting theory and practice. They offer potentially important predictions for behavioral research into how analysts and other financial accounting users react to accounting information and also perhaps language contained in audit opinions. They represent an alternative explanation beyond the generalizations offered by social constructionists as to why the conceptual framework

offered by the FASB (1980) represents an effort to maintain the status quo (Hines 1991; Chua 1986).

So as to address the construct validity of the materials intended to test the reactions of financial analysts to alternative human resource accounting treatments, I would like to duplicate the experiment conducted here without the dramatic language differences included in the audit opinions. This duplication may address the research question I intended at the outset of the study-to test whether alternative human resource accounting models make a difference to financial analysts' judgments.

Finally, although the experiment designed and implemented here was not a test of Wallman's (1996) colorized or layered accounting model, I would like to explore research questions motivated by his reporting model. This model provides potential for accounting theorists and practitioners to sustain a dialogue that may help ameliorate some of the informational deficiencies present in the historical cost accounting model due to the bias toward reliability.

APPENDIX A

PRETEST MATERIALS

Case Instructions

PLEASE DO NOT TURN THE PAGE UNTIL TOLD TO DO SO.

Thank you for contributing to this study. The case is designed to study judgments performed by financial analysts. The attached case materials contain information about a company. You will analyze the case in two parts. In the first part, you will receive some information about a company. **Assume that the company in the case has passed your firm's initial screening process for a *possible* buy recommendation. Your task will involve further analysis.**

After you complete the first part of the case please raise your hand and I will collect your responses. Upon raising your hand, you will receive a set of information and some more questions to answer. Please follow the instructions attached to this second set of information.

I do not represent that the materials included in this case are a comprehensive set of information that you would typically use to analyze a company. You may in fact consider many sources of information over a long period of time in performing such a task. Due to the limited amount of time that you have to participate in this study, I have purposefully limited the information to what is presented here. Please try to consider only the information given in the case materials in making your assessments.

I will keep your individual responses in strict confidence. The results of the case will be analyzed and reported only after all of the responses have been aggregated.

Thank you again for helping with this research by participating in this study and completing the case materials in their entirety. Both parts of the case will probably take you a total of about 30 minutes to complete. I will be happy to send you the aggregated results of this project if you will give me your name and address after the session. Please turn the page, and answer the questions.

Scott Stovall
Ph.D. candidate
The University of North Texas

Please answer the following questions before beginning the case, bearing in mind the following definitions:

Reliability refers to the extent to which information is (1) verifiable, (2) a faithful representation of the events it purports to represent, and (3) free from error or bias.

Relevance refers to the extent to which information makes a difference in a decision. Characteristics of relevant information include (1) predictive value, (2) feedback value, and (3) timeliness.

1. Generally speaking, reliability is an important quality of accounting information.

1 2 3 4 5 6 7 8 9

Strongly Disagree -- Disagree --Neither Agree or Disagree -- Agree -- Strongly Agree

2. Generally speaking, relevance is an important quality of accounting information.

1 2 3 4 5 6 7 8 9

Strongly Disagree -- Disagree --Neither Agree or Disagree -- Agree -- Strongly Agree

Please raise your hand when you are finished with these two questions and I will collect this sheet and give you the next set of materials.

The materials you have in your possession contain information regarding a firm called "The Company" and include:

1. A brief description of The Company and the industry in which it participates.
2. Recent stock-price information of The Company.
3. Sales growth data for The Company along with sales growth data for the industry over the same period.
4. Portions of an article concerning The Company published recently in a leading business magazine.

Review items 1 through 4 listed above that are contained in the case materials. After five minutes, I will distribute some questions for you to answer based upon your analysis of the materials listed above. Please feel free to refer back to the information as you answer the questions.

When you are finished this part and have returned the questionnaire, I will give you the second set of materials. Again, remember that your firm's initial screening process has identified this company's stock for a *possible* buy recommendation. Your task is to perform a supplemental analysis to determine if such a recommendation is warranted.

Company Description (excerpt from this year's Form 10-K)

The Company is an international management consulting and information systems integration firm. A majority of The Company's revenues historically have been generated from software development activities.

In order to meet increased demand for its services, The Company increased its staff by 49% to 3,071 by this fiscal year end, from 2,065 one year ago. The Company currently expects to increase headcount next year at approximately the current year rate to support the anticipated demand for its services.

Competition (excerpt from The Company's Form 10-K)

The management and information technology consulting and software development market comprises a large number of participants, is subject to rapid changes, and is highly competitive. The market includes participants from a variety of market segments, including systems consulting and integration firms, contract programming companies, application software firms, and the professional service groups of computer equipment companies. The Company also faces competition from information services organizations within potential clients.

Recent stock-price information of The Company

The Company's stock is traded on a public exchange. Recent data include:

Price as of today's market close	25 1/8
52-week Low	13 11/32
52-week High	58 11/32
Dividend Yield %	N/A (Company does not currently pay dividends).

Revenue and revenue growth data for The Company

Source: current year form 10-K

	Current Yr	One Yr Ago	Two Yrs ago
Net revenues **(in thousands)**	$406,672	$272,878	$179,667
Revenue growth = **(current year-prev year) / previous year**	49%	34%	90%

Excerpts of article published recently in a leading business magazine:

In the crowded field of systems integration, The Company attempts to set itself apart from its rivals by hiring and keeping good people. The Company invests a good amount of money on employee training. “It’s an investment in employee retention.” The Company CEO says, "Most people will have seven jobs before their careers are over. What they look for in an employer is a continuous investment in their skills. We've been very aggressive about trying to meet their needs." Retaining employees is good for any company, but it is especially vital for fast growing businesses. An analyst from a respected investment house who watches The Company says, “If a fast-growing company loses one person, it ends up having to hire two more. One replaces the person they lost, and the other is needed because the company is growing so fast. If you are trying to grow your company 50% each year, you'd better be looking at people this way."

More than a third of new hires arrive through referrals, a good measure of what current employees think about working there. Annual turnover rates, while high for some industries, are well below the industry average and are impressive, given the demand for professionals in the information technology fields.

Questions:

1. Based on your analysis of the information in the case, assess the likelihood that you would recommend that your clients buy common stock in The Company (circle one).

1 2 3 4 5 6 7 8 9

Low likelihood **High likelihood**

Please answer the next two questions, again based upon the following definitions:

Reliability refers to the extent to which information is (1) verifiable, (2) a faithful representation of the events it purports to represent, and (3) free from error or bias.

Relevance refers to the extent to which information makes a difference in a decision. Characteristics of relevant information include (1) predictive value, (2) feedback value, and (3) timeliness.

---

2. How **reliable** is the information you had available to use in making your buying judgment?

1 2 3 4 5 6 7 8 9

Unreliable **Reliable**

3. How **relevant** is the information you had available to use in making your buying judgment?

1 2 3 4 5 6 7 8 9

Irrelevant **Relevant**

You are finished with part 1 of the case. Remove this page, and raise your hand. I will collect the page and give you the second part of the case.

APPENDIX B

TREATMENT MATERIALS

Part 2 - Case materials and instructions

The materials you have for this part of the case include financial statements for The Company, including

(A) a comparative balance sheet,
(B) a comparative income statement,
(C) a statement of cash flows,
(D) an excerpt of a footnote disclosure, and
(E) an independent audit report.

In five minutes, I will provide you with additional questions for your judgment along with a background/debriefing questionnaire. Again, thank you for participating in the study.

The Company
CONSOLIDATED BALANCE SHEETS
(In thousands, except share data)

ASSETS	Current Year	One Year Ago
Total current assets	194,121	121,079
Property and equipment, net	35,403	20,591
Goodwill and other assets	7,718	5,974
Total assets	$237,242	$147,644
LIABILITIES AND STOCKHOLDERS' EQUITY		
Total current liabilities	$ 86,191	48,826
Obligations under capital leases and deferred income taxes	1,264	633
Stockholders' equity:		
Common stock and paid in capital	75,803	49,902
Retained earnings and foreign curr trans	73,984	48,283
Total stockholders' equity	149,787	98,185
Total liabilities and stockholders' equity	$237,242	$147,644

The Company
CONSOLIDATED STATEMENTS OF OPERATIONS
(in thousands, except per share data)

	Current Year	One Year Ago	Two years ago
Net revenues	$406,672	$272,878	$179,667
Costs and expenses:			
Project personnel	183,587	124,544	83,273
Selling, general and administrative	82,091	55,146	41,553
Other costs (see Note A)	80,220	52,537	29,223
Business combination costs	4,760	1,195	1,333
Total operating expenses	350,658	233,422	155,382
Income from operations	56,014	39,456	24,285
Other income (expense) net	1,969	797	1,445
Income before income taxes	57,983	40,253	25,730
Provision for income taxes	25,054	16,228	10,072
Net income	$ 32,929	$ 24,025	$ 15,658
Basic net income per share	$.62	$.48	$.32
Diluted net income per share	$.57	$.42	$.28

The Company
CONSOLIDATED STATEMENTS OF CASH FLOWS
(in thousands)

	Current Yr	One Yr Ago	Two Yrs Ago
CASH FLOWS FROM OPERATING ACTIVITIES:			
Net income	$ 32,929	$ 24,025	$ 15,658
Adjustments to reconcile net income to net cash			
Provided by operating activities:			
Depreciation and amortization	8,407	6,582	4,310
Tax benefit from exercise of stock options	5,807	10,555	3,753
Benefit (provision) for deferred income taxes	(337)	(566)	425
Gain on sale of business	-	-	(909)
Changes in current assets and current liabilities (net)	(24,474)	(16,055)	(9,890)
Net cash provided by operating activities	22,332	24,541	13,347
CASH FLOWS FROM INVESTING ACTIVITIES:			
Additions to property and equipment	(22,654)	(12,880)	(9,213)
Purchase of investments held to maturity	(18,261)	(18,467)	(22,140)
Maturity of investments held to maturity	15,164	14,284	24,075
Proceeds from sale of business	-	-	909
Net cash used in investing activities	(25,751)	(17,063)	(6,369)
CASH FLOWS FROM FINANCING ACTIVITIES:			
Payments under credit arrangements, net	-	(325)	(1,256)
Issuance of common and subsidiary stock	-	5	4,367
Acquisition of stock from subsidiary recapitalization	-	-	(4,350)
Proceeds (repayments) from long-term debt/capital leases	674	(183)	(1,160)
Dividend distributions	(2,956)	(2,014)	(1,343)
Proceeds from employee stock purchase plan	4,936	2,071	579
Proceeds from exercise of stock options and warrants	14,600	8,315	1,804
Other, net	-	-	(235)
Net cash provided by (used in) financing activities	17,254	7,869	(1,594)
Effect of foreign exchange rate changes on cash	(426)	(341)	21
Net increase in cash and cash equivalents	13,409	15,006	5,405
Cash and cash equiv at beginning of period	26,087	11,081	5,676
Cash and cash equivalents at end of period	$ 39,496	$ 26,087	$ 11,081

The Company
EXCERPT FROM NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

A. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

OTHER COSTS
Other costs consist of the following (in thousands):

	Current Yr	One Yr Ago	Two Yrs ago
Facility costs and related expenses	$28,959	$21,062	$ 8,669
Employee training	28,467	19,101	12,577
Non-billable project expenses	11,986	7,182	4,465
Non-billable staff travel	10,808	5,191	3,513
Total	$80,220	$52,537	$29,223

Company management expects that the training costs expensed above have an expected benefit of approximately three years, but do not capitalize such costs due to current generally accepted accounting principles (GAAP).

Report from Independent Auditors

The Board of Directors
The Company

We have audited the accompanying consolidated balance sheets of The Company as of December 31, for the current year and last year, and the related consolidated statements of operations, stockholder's equity, and cash flows for each of the three years in the period ended December 31, current year. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with generally accepted auditing standards. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the consolidated financial position of The Company as of December 31, current year and last year, and the consolidated results of its operations and its cash flows for each of the three years in the period ended December 31, current year, in conformity with generally accepted accounting principles.

Public Accounting Firm

The Company
CONSOLIDATED BALANCE SHEETS
(In thousands, except share data)

ASSETS	Current Year	One Year Ago
Total current assets	$194,121	$121,079
Property and equipment, net	35,403	20,591
Investment in human resources (HR), net*	25,345	16,927
Goodwill and other assets	7,718	5,974
Total assets	$262,587	$164,571
LIABILITIES AND OWNERS' EQUITY		
Total current liabilities	86,191	48,826
Obligations under capital leases and and deferred income taxes	11,627	7,359
Stockholders' equity:		
Common stock and paid-in capital	75,803	49,902
Retained earnings & foreign currency trans.	73,984	48,283
Retained earnings - human resources	14,982	10,201
Total stockholders' equity	164,769	108,386
Total liabilities and stockholders' equity	$262,587	$164,571

CONSOLIDATED STATEMENTS OF OPERATIONS
(in thousands, except per share data)

	Current Year	One Year Ago	Two years ago
Net revenues	$406,672	$272,878	$179,667
Costs and expenses:			
Project personnel	183,587	124,544	83,273
Selling general and administrative	82,091	55,146	41,553
Other costs*	51,753	33,436	16,646
Amortization of investment in HR*	20,048	10,559	4,192
Business combination costs	4,760	1,195	1,333
Total operating expenses	342,239	224,880	146,997
Income from operations	64,433	47,998	32,670
Other income (expense), net	1,969	797	1,445
Income before income taxes	66,402	48,795	34,115
Provision for income taxes	28,686	19,664	13,339
Net income	$ 37,716	$ 29,131	$ 20,776
Basic net income per share	$0.71	$0.58	$0.43
Diluted net income per share	$0.65	$0.51	$0.37

*See NOTE A

The Company
CONSOLIDATED STATEMENTS OF CASH FLOWS
(in thousands)

	Current Yr	One Yr Ago	Two Yrs ago
CASH FLOWS FROM OPERATING ACTIVITIES:			
Net income	$ 37,716	$ 29,131	$ 20,776
Adjustments to reconcile net income to net cash provided by operating activities:			
Depreciation and amortization	28,455	17,141	8,502
Tax benefit from exercise of stock options	5,807	10,555	3,753
Benefit (provision) for deferred income taxes	3,295	2,871	3,691
Gain on sale of business	-	-	(909)
Changes in current assets and current liabilities, net	(24,474)	(16,055)	(9,890)
Net cash provided by operating activities	$ 50,799	$ 43,643	$ 25,923
CASH FLOWS FROM INVESTING ACTIVITIES:			
Investment in human resources	(28,467)	(19,101)	(12,577)
Additions to property and equipment	(22,654)	(12,880)	(9,213)
Purchase of investments held to maturity	(18,261)	(18,467)	(22,140)
Maturity of investments held to maturity	15,164	14,284	24,075
Proceeds from sale of business	-	-	909
Net cash used in investing activities	$(54,218)	$ (36,164)	$ (18,946)
CASH FLOWS FROM FINANCING ACTIVITIES:			
Payments under credit arrangements, net	-	(325)	(1,256)
Issuance of common and subsidiary stock, net	-	5	4,367
Proceeds repayments) from long-term debt/capital leases	674	(183)	(1,160)
Dividend distributions	(2,956)	(2,014)	(1,343)
Proceeds from employee stock purchase plan	4,936	2,071	579
Proceeds from exercise of stock options and warrants	14,600	8,315	1,804
Other, net	-	-	(235)
Net cash provided by (used in) financing activities	$ 17,254	$ 7,869	$(1,594)
effect of foreign exchange rate changes on cash	(426)	(341)	21
Net increase in cash and cash equivalents	13,409	15,006	5,405
Cash and cash equiv at beginning of period	26,087	11,081	5,676
Cash and cash equivalents at end of period	$ 39,496	$ 26,087	$ 11,081

The Company
EXCERPT FROM NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

A. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

INVESTMENT IN HUMAN RESOURCES, NET

Investment in human resources, (employee training) are stated at cost less accumulated amortization. Costs are amortized over an estimated useful life of three years, their expected benefit. The cumulative effect (net of tax) of capitalizing these costs on retained earnings are as shown on the balance sheet. The item results in a deferred income tax accrual since training costs are fully deductible for income tax purposes, but are capitalized and amortized over three years for financial reporting purposes.

OTHER COSTS

Other costs consist of the following (in thousands):

	Current Yr	One Yr Ago	Two Yrs ago
Facility costs and related expenses	$28,959	$21,062	$ 8,669
Non-billable project expenses	11,986	7,182	4,465
Non-billable staff travel	10,808	5,191	3,513
Total	$51,753	$33,436	$16,646

Report from Independent Auditors

The Board of Directors
The Company

We have audited the accompanying consolidated balance sheets of The Company as of December 31, current year and last year, and the related consolidated statements of operations, stockholder's equity, and cash flows for each of the three years in the period ended December 31, current year. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with generally accepted auditing standards. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

As described in the notes to the financial statements, The Company capitalized and amortized training costs on the balance sheet. Generally accepted accounting principles require that such costs be expensed as incurred. The effect of the departure increases net income by $4,787,000 and $5,106,000 for current year and last year, respectively, and increases total assets by $25,345,000 and $16,927,000 for the years ended current year and last year, respectively. In the opinion of company management, with which we agree, a literal application of the accounting literature would have resulted in misleading financial statements. The Company spends significantly more on these costs than other firms in the industry in order to decrease employee turnover and preserve a well-trained workforce. Treating these costs as expenses would underestimate The Company’s total investment and the return on that investment.

In our opinion, the financial statements referred to above present fairly, in all material respects, the consolidated financial position of The Company as of December 31, current year and last year, and the consolidated results of its operations and its cash flows for each of the three years in the period ended December 31, current year, in conformity with generally accepted accounting principles.

Public Accounting Firm

CONSOLIDATED BALANCE SHEETS
(In thousands, except share data)

ASSETS	Current Year	One Year Ago
Total current assets	$194,121	$121,079
Property and equipment, net	35,403	20,591
Investment in human resources, net*	32,847	21,937
Goodwill and other current assets, net	7,718	5,974
Total assets	$270,089	$169,581
LIABILITIES AND OWNERS' EQUITY		
Total current liabilities	86,191	48,826
Other liabilities	14,695	9,350
Stockholders' equity:		
Common stock and paid-in capital	75,803	49,902
Retained earnings and foreign currency trans	73,984	48,283
Retained earnings – human resources*	19,416	13,220
Total stockholders' equity	169,203	111,405
Total liabilities and stockholders' equity	$270,089	$169,581

CONSOLIDATED STATEMENTS OF OPERATIONS
(in thousands, except per share data)

	Current Year	One Year Ago	Two years ago
Net revenues	$406,672	$272,878	$179,667
Costs and expenses:			
Project personnel	183,587	124,544	83,273
Selling general and administrative	82,091	55,146	41,553
Other costs*	51,753	33,436	16,646
Amortization of investment in HR*	25,983	13,685	5,433
Business combination costs	4,760	1,195	1,333
Total operating expenses	348,174	228,006	148,238
Income from operations	58,498	44,872	31,429
Other income (expense), net	1,969	797	1,445
Unrealized gain on write-up of inv. in HR to replacement cost*	8,426	5,654	3,723
Income before income taxes	68,893	51,323	36,597
Provision for income taxes	29,768	20,691	14,326
Net income	$ 39,125	$ 30,632	$ 22,271
Basic net income per share	$0.74	$0.61	$0.46
Diluted net income per share	$0.68	$0.54	$0.40

*See NOTE A

The Company
CONSOLIDATED STATEMENTS OF CASH FLOWS
(in thousands)

	Current Yr	One Yr Ago	Two Yrs Ago
CASH FLOWS FROM OPERATING ACTIVITIES:			
Net income	$ 39,125	$ 30,632	$ 22,271
Adjustments to reconcile net income to net cash provided by operating activities:			
Depreciation and amortization	34,390	20,267	9,743
Tax benefit from exercise of stock options	5,807	10,555	3,753
Benefit (provision) for deferred income taxes	4,377	3,897	4,679
Gain on sale of business	-	-	(909)
Unrealized gain on write-up of human resource costs to replacement cost*	(8,426)	(5,654)	(3,723)
Changes in current assets and current liabilities (net)	(24,474)	(16,055)	(9,890)
Net cash provided by operating activities	50,799	43,642	25,924
CASH FLOWS FROM INVESTING ACTIVITIES:			
Investment in human resources*	(28,467)	(19,101)	(12,577)
Additions to property and equipment	(22,654)	(12,880)	(9,213)
Purchase of investments held to maturity	(18,261)	(18,467)	(22,140)
Maturity of investments held to maturity	15,164	14,284	24,075
Proceeds from sale of business	-	-	909
Net cash used in investing activities	(54,218)	(36,164)	(18,946)
CASH FLOWS FROM FINANCING ACTIVITIES:			
Payments under credit arrangements, net	-	(325)	(1,256)
Issuance of common and subsidiary stock	-	5	4,367
Acquisition of stock from subsidiary recapitalization	-	-	(4,350)
Proceeds (repayments) from long-term debt/capital leases	674	(183)	(1,160)
Dividend distributions	(2,956)	(2,014)	(1,343)
Proceeds from employee stock purchase plan	4,936	2,071	579
Proceeds from exercise of stock options and warrants	14,600	8,315	1,804
Other, net	-	-	(235)
Net cash provided by (used in) financing activities	17,254	7,869	(1,594)
Effect of foreign exchange rate changes on cash	(426)	(341)	21
Net increase in cash and cash equivalents	13,409	15,006	5,405
Cash and cash equiv at beginning of period	26,087	11,081	5,676
Cash and cash equivalents at end of period	$ 39,496	$ 26,087	$ 11,081

*See NOTE A

The Company
EXCERPT FROM NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

A. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

INVESTMENT IN HUMAN RESOURCES, NET

This asset represents an estimate of the costs that The Company would expect to incur if it had to replace its existing workforce. The recognition of this asset requires the recognition of unrealized gains on the write-up of current human resource costs to replacement cost and an adjustment to retained earnings for the change in the human resource asset, from the last accounting period to the current period.

OTHER COSTS

Other costs consist of the following (in thousands):

	Current Yr	One Yr Ago	Two Yrs Ago
Facility costs and related expenses	$28,959	$21,062	$ 8,669
Non-billable project expenses	11,986	7,182	4,465
Non-billable staff travel	10,808	5,191	3,513
Total	$51,753	$33,436	$16,646

Report from Independent Auditors

The Board of Directors
The Company

We have audited the accompanying consolidated balance sheets of The Company as of December 31, current year and last year, and the related consolidated statements of operations, stockholder's equity, and cash flows for each of the three years in the period ended December 31, current year. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with generally accepted auditing standards. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

As described in the notes to the financial statements, The Company has capitalized human resource assets under a replacement cost framework. The Company based the replacement cost values of their human resources upon hypothetical costs of having to replace its workforce if necessary in the next accounting period. In our opinion, this capitalization based on projected costs does not conform to generally accepted accounting principles. The effect of this departure increases net income by $5,170,000 and $5,513,000 for years current year and last year, respectively, and increases total assets by $27,373,000 and $18,280,000 for the current year and last year, respectively.

In our opinion, except for the effects of capitalizing the replacement cost of human resource assets, as discussed in the preceding paragraph, the financial statements referred to above present fairly, in all material respects, the consolidated financial position of The Company as of December 31, current year and last year, and the consolidated results of its operations and its cash flows for each of the three years in the period ended December 31, current year, in conformity with generally accepted accounting principles.

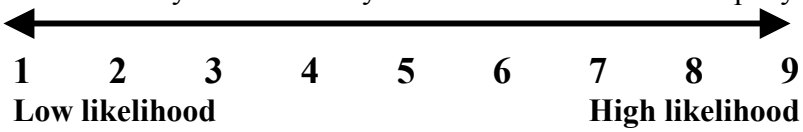
Public Accounting Firm

APPENDIX C

POSTTEST QUESTIONNAIRE

Questions:

1. Based on your analysis of the information in the case, assess the likelihood that you would recommend that your clients buy common stock in The Company (circle one).



Please answer questions two and three, based upon the following definitions

Reliability refers to the extent to which information is (1) verifiable, (2) a faithful representation of the events it purports to represent, and (3) free from error or bias.

Relevance refers to the extent to which information makes a difference in a decision. Characteristics of relevant information include (1) predictive value, (2) feedback value, and (3) timeliness.

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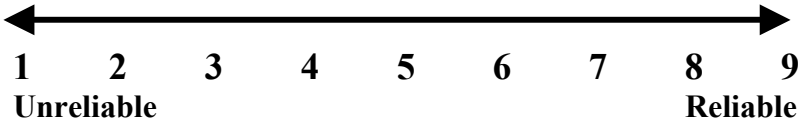
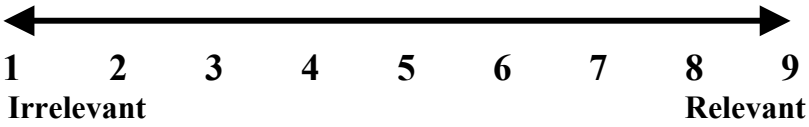
2. How **reliable** is the information you had available to use in making your buying judgment?



3. How **relevant** is the information you had available to use in making your buying judgment?



Please continue on the next page

4. Briefly state why you changed (or did not change) your judgments after receiving the financial statements in part two of the case.

A. Assessment of the likelihood of making a buy recommendation to your clients:

B. Reliability of the information you analyzed:

C. Relevance of the information you analyzed:

Please continue on the next page.

Please answer the following questions about yourself:

1. Are you a Chartered Financial Analyst (CFA)? If no, skip question 2.

   _____Yes
   _____ No

2. If you answered yes to question one, for how long have you been a CFA?

   _____Years

3. How many years of experience do you have as a financial analyst? If you are a CFA, include the entire amount of time you have been an analyst, regardless of when you became a CFA.

   _____Years

4. Please indicate with a check if you specialize in the analysis of companies in any particular industry. Please check more than one box if applicable.

   _____Basic materials and processing industries
   _____Capital equipment and technology
   _____Services
   _____Consumer durables
   _____Consumer Non-durables
   _____Energy
   _____Financial
   _____Transportation
   _____Utilities
   _____Other _____(please provide description)
   _____

Please continue on the next page

5. How knowledgeable are you with respect to the computer consulting and services industry?

1 2 3 4 5 6 7 8 9

Not knowledgeable Very knowledgeable

6. How many accounting classes did you have in your college education? (please check the appropriate blank).

0-1 _____
2-3 _____
4-5 _____
6-7 _____
8-9 _____
10 + _____

7. Are you a certified public accountant?

_____Yes
_____No

8. How knowledgeable are you with accounting concepts and principles, commonly referred to as generally accepted accounting principles (GAAP)?

1 2 3 4 5 6 7 8 9

Not knowledgeable Very knowledgeable

9. How knowledgeable are you with SEC reporting practices?

1 2 3 4 5 6 7 8 9

Not knowledgeable Very knowledgeable

10. This company spends significant resources (as compared to other companies) on training their employees.

1 2 3 4 5 6 7 8 9

Strongly Disagree-Disagree-Neither -- Agree - Strongly Agree

Agree or Disagree

APPENDIX D

FINANCIAL STATEMENT VALUE DIFFERENCES

Value Differences Between CAP and DISC

Balance Sheet Differences

Current Year (CY)	CAP	DISC	Diff
Investment in HR	25,345	0	25,345
Obligations - cap leases and deferred inc. taxes	11,627	1,264	10,363
Retained earnings - Human resources	14,982	0	14,982
Total Stockholders' Equity	164,769	149,787	14,982
Total Assets/Total Liab and S.E.	262,587	237,242	25,345

Last Year (CY-1)	CAP	DISC	Diff
Investment in HR	16,927	0	16,927
Obligations - cap leases and deferred inc. taxes	7,359	633	6,726
Retained earnings - Human resources	10,201	0	10,201
Total Stockholders' Equity	108,386	98,185	10,201
Total Assets/Total Liab and S.E.	164,571	147,644	16,927

Income Statement Differences

Current Year (CY)	CAP	DISC	Diff
Other costs	51,753	80,220	(28,467)
Amortization of investment in HR	20,048	0	20,048
Total operating expenses	342,239	350,658	(8,419)
Income from operations	64,433	56,014	8,419
Income before income taxes	66,402	57,983	8,419
Provision for income taxes	28,686	25,054	3,632
Net income	37,716	32,929	4,787
EPS - basic	0.71	0.62	0.09
EPS - diluted	0.65	0.57	0.08

Last Year (CY-1)	CAP	DISC	Diff
Other costs	33,436	52,537	(19,101)
Amortization of investment in HR	10,559	0	10,559
Total operating expenses	224,880	233,422	(8,542)
Income from operations	47,998	39,456	8,542
Income before income taxes	48,795	40,253	8,542
Provision for income taxes	19,664	16,228	3,436
Net income	29,131	24,025	5,106
EPS - basic	0.58	0.48	0.10
EPS - diluted	0.51	0.42	0.09

Value Differences Between CAP and DISC (continued)

Income Statement Differences

2 Years Ago (CY-2)	CAP	DISC	Diff
Other costs	16,646	29,223	(12,577)
Amortization of investment in HR	4,192	0	4,192
Total operating expenses	146,997	155,382	(8,385)
Income from operations	32,670	24,285	8,385
Income before income taxes	34,115	25,730	8,385
Provision for income taxes	13,339	10,072	3,267
Net income	20,776	15,658	5,118
EPS - basic	0.43	0.32	0.11
EPS - diluted	0.37	0.28	0.09

Statement of Cash Flows Differences

Current Year (CY)	CAP	DISC	Diff
Net income	37,716	32,929	4,787
Depreciation and amortization	28,455	8,407	20,048
Benefit (provision) for deferred income taxes	3,295	(337)	3,632
Net cash provided by operating activities	50,799	22,332	28,467
Investment in Human resources (training costs)	28,467	0	28,467
Net cash used in investing activities	(54,218)	(25,751)	(28,467)

Last Year (CY-1)	CAP	DISC	Diff
Net income	29,131	24,025	5,106
Depreciation and amortization	17,141	6,582	10,559
Benefit (provision) for deferred income taxes	2,871	(566)	3,437
Net cash provided by operating activities	43,643	24.542	19,101
Investment in Human resources (training costs)	19,101	0	19,101
Net cash used in investing activities	(36,164)	(17,063)	(19,101)

2 Years Ago (CY-2)	CAP	DISC	Diff
Net income	20,776	15,658	5,118
Depreciation and amortization	8,502	4,310	4,192
Benefit (provision) for deferred income taxes	3,691	425	3,266
Net cash provided by operating activities	25,923	13.347	12,576
Investment in Human resources (training costs)	12,576	0	12,576
Net cash used in investing activities	(18,946)	(6,369)	(12,576)

Value Differences Between RC and DISC

Balance Sheet Differences

Current Year (CY)	RC	DISC	Diff
Investment in HR	32,847	0	32,847
Obligations - cap leases and deferred inc. taxes	14,695	1,264	13,431
Retained earnings - Human resources	19,416	0	19,416
Total Stockholders' Equity	169,203	149,787	19,416
Total Assets/Total Liab and S.E.	270,089	237,242	32,847

Last Year (CY-1)	RC	DISC	Diff
Investment in HR	21,937	0	21,937
Obligations - cap leases and deferred inc. taxes	9,350	633	8,717
Retained earnings - Human resources	13,220	0	13,220
Total Stockholders' Equity	111,405	98,185	13,220
Total Assets/Total Liab and S.E.	169,581	147,644	21,937

Income statement differences

Current Year (CY)	RC	DISC	Diff
Other costs	51,753	80,220	(28,467)
Amortization of investment in HR	25,983	0	25,983
Total operating expenses	348,174	350,658	(2,484)
Income from operations	58,498	56,014	2,484
Unrealized gain/ write-up of HR to RC	8,426	0	8,426
Income before income taxes	68,893	57,983	10,910
Provision for income taxes	29,768	25,054	4,714
Net income	39,125	32,929	6,196
EPS - basic	0.74	0.62	0.12
EPS - diluted	0.68	0.57	0.11

Last Year (CY-1)	RC	DISC	Diff
Other costs	33,436	52,537	(19,101)
Amortization of investment in HR	13,685	0	13,685
Total operating expenses	228,006	233,422	(5,416)
Income from operations	44,872	39,456	5,416
Unrealized gain/ write-up of HR to RC	5,654	0	5,654
Income before income taxes	51,323	40,253	11,070
Provision for income taxes	20,691	16,228	4,463
Net income	30,632	24,025	6,607
EPS - basic	0.61	0.48	0.13
EPS - diluted	0.54	0.42	0.12

Value Differences Between RC and DISC

Income statement differences

2 Years Ago (CY-2)	RC	DISC	Diff
Other costs	16,646	29,223	(12,577)
Amortization of investment in HR	5,433	0	5,433
Total operating expenses	148,238	155,382	(7,144)
Income from operations	31,429	24,285	7,144
Unrealized gain/ write-up of HR to RC	3,723	0	3,723
Income before income taxes	36,597	25,730	10,867
Provision for income taxes	14,326	10,072	4,254
Net income	22,271	15,658	6,613
EPS - basic	0.46	0.32	0.14
EPS - diluted	0.40	0.28	0.12

Statement of Cash Flows Differences

Current Year (CY)	RC	DISC	Diff
Net income	39,125	32,929	6,196
Depreciation and amortization	34,390	8,407	25,983
Benefit (provision) for deferred income taxes	4,377	(337)	4,714
Unrealized gain on write up of HR to repl. cost	(8,426)	0	(8,426)
Net cash provided by operating activities	50,799	22,332	28,467
Investment in Human resources	28,467	0	28,467
Net cash used in investing activities	(54,218)	(25,751)	(28,467)

Last Year (CY-1)	RC	DISC	Diff
Net income	30,632	24,025	6,607
Depreciation and amortization	20,267	6,582	13,685
Benefit (provision) for deferred income taxes	3,897	(566)	4,463
Unrealized gain on write up of HR to repl. cost	(5,654)	0	(5,654)
Net cash provided by operating activities	43,644	24.543	19,101
Investment in Human resources	19,101	0	19,101
Net cash used in investing activities	(36,164)	(17,063)	(19,101)

2 Years Ago (CY-2)	RC	DISC	Diff
Net income	22,271	15,658	6,613
Depreciation and amortization	9,743	4,310	5,433
Benefit (provision) for deferred income taxes	4,679	425	4,254
Unrealized gain on write up of HR to repl. cost	(3,723)	0	(3,723)
Net cash provided by operating activities	25,924	13,347	12,577
Investment in Human resources	12,577	0	12,577
Net cash used in investing activities	(18,946)	(6,369)	(12,577)

Value Differences Between RC and CAP

Balance Sheet Differences

Current Year (CY)	RC	CAP	Diff
Investment in HR	32,847	25,345	7,502
Obligations - cap leases and deferred inc. taxes	14,695	11,627	3,068
Retained earnings - Human resources	19,416	14,982	4,434
Total Stockholders' Equity	169,203	164,769	4,434
Total Assets/Total Liab and S.E.	270,089	262,587	7,502

Last Year (CY-1)	RC	CAP	Diff
Investment in HR	21,937	16,927	5,010
Obligations - cap leases and deferred inc. taxes	9,350	7,359	1,991
Retained earnings - Human resources	13,220	10,201	3,019
Total Stockholders' Equity	111,405	108,386	3,019
Total Assets/Total Liab and S.E.	169,581	164,571	5,010

Income statement differences

Current Year (CY)	RC	CAP	Diff
Other costs	51,753	51,753	0
Amortization of investment in HR	25,983	20,048	5,935
Total operating expenses	348,174	342,239	5,935
Income from operations	58,498	64,433	(5,935)
Unrealized gain/ write-up of HR to RC	8,426	0	8,426
Income before income taxes	68,893	66,402	2,491
Provision for income taxes	29,768	28,686	1,082
Net income	39,125	37,716	1,409
EPS - basic	0.74	0.71	0.03
EPS - diluted	0.68	0.65	0.03

Last Year (CY-1)	RC	CAP	Diff
Other costs	33,436	33,436	0
Amortization of investment in HR	13,685	10,559	3,126
Total operating expenses	228,006	224,880	3,126
Income from operations	44,872	47,998	(3,126)
Unrealized gain/ write-up of HR to RC	5,654	0	5,654
Income before income taxes	51,323	48,795	2,528
Provision for income taxes	20,691	19,664	1,027
Net income	30,632	29,131	1,501
EPS - basic	0.61	0.58	0.03
EPS - diluted	0.54	0.51	0.03

Value Differences Between RC and CAP (continued)

Income statement differences

2 Years Ago (CY-2)	RC	CAP	Diff
Other costs	16,646	16,646	0
Amortization of investment in HR	5,433	4,192	1,241
Total operating expenses	148,238	146,997	1,241
Income from operations	31,429	32,670	(1,241)
Unrealized gain/ write-up of HR to RC	3,723	0	3,723
Income before income taxes	36,597	34,115	2,482
Provision for income taxes	14,326	13,339	987
Net income	22,271	20,776	1,495
EPS - basic	0.46	0.43	0.03
EPS - diluted	0.40	0.37	0.03

Statement of Cash Flows Differences

Current Year (CY)	RC	CAP	Diff
Net income	39,125	37,716	1,409
Depreciation and amortization	34,390	28,455	5,935
Benefit (provision) for deferred income taxes	4,377	3,295	1,082
Unrealized gain on write up of HR to repl. cost	(8,426)	0	(8,426)
Net cash provided by operating activities	50,799	50,799	0
Investment in Human resources (training costs)	28,467	28,467	0
Net cash used in investing activities	(54,218)	(54,218)	0

Last Year (CY-1)	RC	CAP	Diff
Net income	30,632	29,131	1,501
Depreciation and amortization	20,267	17,141	3,126
Benefit (provision) for deferred income taxes	3,897	2,871	1,026
Unrealized gain on write up of HR to repl. cost	(5,654)	0	(5,654)
Net cash provided by operating activities	43,643	43,643	0
Investment in Human resources (training costs)	19,101	19,101	0
Net cash used in investing activities	(36,164)	(36,164)	0

2 Years Ago (CY-2)	RC	CAP	Diff
Net income	22,271	20,776	1,495
Depreciation and amortization	9,743	8,502	1,241
Benefit (provision) for deferred income taxes	4,679	3,691	988
Unrealized gain on write up of HR to repl. cost	(3,723)	0	(3,723)
Net cash provided by operating activities	25,924	25,924	0
Investment in Human resources (training costs)	12,577	12,577	0
Net cash used in investing activities	(18,946)	(18,946)	0

APPENDIX E

RESPONSES TO OPEN-ENDED QUESTIONS

Subject 3 - DISC

Question 4: Briefly state why you changed (or did not change) your judgments after receiving the financial statements in part two of the case.

A. Assessment of the likelihood of making a buy recommendation to your clients:
Given the numbers and the fact that the company was said to be at an advantage in investing in their people, I would recommend in barring any additional info. In competition, i.e., margins, price erosion, etc. However, I would like to look at other companies to see what the spent on their employees… A relative question can't be answered in isolation.

B. Reliability of the information you analyzed:
The info. In part 2 is perceived as more reliable than the information in part 1 mostly due to the fact that the number's confirm the story, and that people perceive that number's can't be manipulated as much as a spin on a story can be.

C. Relevance of the information you analyzed:
The predictive and feedback value aspects of the number's in part 2 is more relevant than the story. However, the story is more timely in the sense that is allows you to determine whether or not those trends evidenced in the numbers are sustainable going forward.

Subject 4 - DISC

Question 4: Briefly state why you changed (or did not change) your judgments after receiving the financial statements in part two of the case.

A. Assessment of the likelihood of making a buy recommendation to your clients:
Info re profitability to cash flows

B. Reliability of the information you analyzed:
Audited financial statements provided back-up for previous disclosures, eg, commitments to training.

C. Relevance of the information you analyzed:
No change. I would like more info on degree of customer satisfactions, repeat business, quality of personnel hired, company's position in industry. The information, while more detailed, did not address those issues.

Subject 6 - DISC

Question 4: Briefly state why you changed (or did not change) your judgments after receiving the financial statements in part two of the case.

A. Assessment of the likelihood of making a buy recommendation to your clients:
Somewhat likely > need to understand other companies' growth

B. Reliability of the information you analyzed:
10-K helps, audited statements not so _____

C. Relevance of the information you analyzed:
Somewhat relevant

Subject 8 - DISC

Question 4: Briefly state why you changed (or did not change) your judgments after receiving the financial statements in part two of the case.

A. Assessment of the likelihood of making a buy recommendation to your clients:
Company is trading at > 40x while growing earnings at 30% and is cash flow (free cash flow) breakeven. Seems more valued at 25+

B. Reliability of the information you analyzed:
Most of the info can from documents audited by the same firm (I assume) so the reliability should be about the same

C. Relevance of the information you analyzed:
I'm number driven. I find financial statements useful for checking various trends and profitability (cash flow) figures.

Subject 11 - DISC

Question 4: Briefly state why you changed (or did not change) your judgments after receiving the financial statements in part two of the case.

A. Assessment of the likelihood of making a buy recommendation to your clients:
More information on the company! Judgment changed little.

B. Reliability of the information you analyzed:
I believe judgment was the same

C. Relevance of the information you analyzed:
Slightly higher due to the more detailed information

Subject 13 - DISC

Question 4: Briefly state why you changed (or did not change) your judgments after receiving the financial statements in part two of the case.

A. Assessment of the likelihood of making a buy recommendation to your clients:
The financial statements verified that earnings were growing in line with revenues and that the company appears to be generating a good return on investment – however the financial statements also showed a big jump in capital _____ which may signal a decline in return on investment.

B. Reliability of the information you analyzed:
Although one knows that there is significant management flexibility in the presentation of financial instruments, the general picture of the financial performance of the company shown in the financial statements seems adequately reliable.

C. Relevance of the information you analyzed:
The relevance of the information improved significantly in that the financial statements show how "productive" management has been with the financial resources provided. They do not however help in determining the future ability of management to perform or the market opportunities to continue.

Subject 16 - DISC

Question 4: Briefly state why you changed (or did not change) your judgments after receiving the financial statements in part two of the case.

A. Assessment of the likelihood of making a buy recommendation to your clients:
The first information received only included revenue information. Without the cash flow and income statements it is not possible to determine profitability or the attractiveness of the business. This looks like a profitable business that generates cash, however it is very people intensive and appears to lack much operating leverage. Therefore not as attractive as the kind of business I look for.

B. Reliability of the information you analyzed:
I assume a certain level of reliability given the public accounting firm audit. However if this were good investment I would try to confirm the prospects for the company and industry through other sources.

C. Relevance of the information you analyzed:
The information is relevant but I have no basis to do projections of future growth & profitability. Therefore it is difficult to assess value of a "growth" company with only trailing data, although this is a start.

Subject 22 - DISC

Question 4: Briefly state why you changed (or did not change) your judgments after receiving the financial statements in part two of the case.

A. Assessment of the likelihood of making a buy recommendation to your clients:
I did not change my mind, the summary info/data was a good base, the extended financials were only more detail.

B. Reliability of the information you analyzed:
Very reliable since it's what is used for various investors

C. Relevance of the information you analyzed:
Most was relevant but reliability was more important.

Subject 26 - DISC

Question 4: Briefly state why you changed (or did not change) your judgments after receiving the financial statements in part two of the case.

A. Assessment of the likelihood of making a buy recommendation to your clients:
I am less likely to recommend a buy rating now that I know the fully diluted earnings per share and the growth rate as well as the reduction in net profit margin over the last 3 years.

B. Reliability of the information you analyzed:
Generally I believe this information is reliable as the auditing firm has been the same for the last 3 years.

C. Relevance of the information you analyzed:
I would be more interested in this company's ability to retain good human talent. Unfortunately, their stock price is critical as well as their grant of options at the potential to dilute earnings. Most of the info. provided is relevant.

Subject 27 - DISC

Question 4: Briefly state why you changed (or did not change) your judgments after receiving the financial statements in part two of the case.

A. Assessment of the likelihood of making a buy recommendation to your clients:
Although the initial information about the company seemed appealing, it was not sufficient to make a judgement with any degree of confidence. Information describing the profitability of the firm, it's capital structure and its cash flow characteristics helped complete the picture. Keep in mind that growth oriented and value oriented investors will view this decision quite differently.

B. Reliability of the information you analyzed:
While financial statements are reliable, the variety of choices accountants have (eg inventory, depreciation, et. al.) mitigate reliability.

C. Relevance of the information you analyzed:
The information provided is very relevant but 2 issues remain. First, more information is needed to build confidence. Second, timeliness is critical, at least to decision making over the short term.

Subject 29 - DISC

Question 4: Briefly state why you changed (or did not change) your judgments after receiving the financial statements in part two of the case.

A. Assessment of the likelihood of making a buy recommendation to your clients:
This information was more relevant because it contained more details and more reliable because it had been audited. Low likelihood for the following reasons:
--no footnotes to financials, other income (1,969) is not detailed,
--net income is growing at slower rate than year before
--current assets are growing from 1 year to the next—Why? Is it a receivable problem
--diluted net income is growing at a slower rate than year before
--cash from operating activities decreased

B. Reliability of the information you analyzed:
More reliable since audited, but still a lot of holes (footnotes)

C. Relevance of the information you analyzed:
More relevant because we have much more information than before

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Subject 34 - DISC

Question 4: Briefly state why you changed (or did not change) your judgments after receiving the financial statements in part two of the case.

A. Assessment of the likelihood of making a buy recommendation to your clients:
The addition of expense/cost analysis added to the first set of only revenue data allowed more detailed analysis of net profits and operating profits. Cash flow further clarified the analysis.

B. Reliability of the information you analyzed:
Although there have been cases lately where public accounting firms have failed to detect company irregularities in accounting practices, it is still fairly reliable data. However, further verification by other outside sources would also be recommended.

C. Relevance of the information you analyzed:
Very relevant. Again, further examination of company management, their experience and expertise, and visits to the company would also be relevant to provide more complete analysis.

Subject 39 - DISC

Question 4: Briefly state why you changed (or did not change) your judgments after receiving the financial statements in part two of the case.

A. Assessment of the likelihood of making a buy recommendation to your clients:
The statements seemed to be consistent with the prior segment's information. This is a company that has had three years of successful operation, but the question to ponder is will it continue. In general, since their assets have to drive home every night, i.e., they are human, it is hard for accounting data to capture reality that would apply to the future. I am troubled by their drop in operating revenues, especially.

B. Reliability of the information you analyzed:
I guess it is "reliable" by the normal standards. I question whether it is massively relevant.

C. Relevance of the information you analyzed:
At best it is somewhat relevant in that it confirms that they may be running out of the good growth years.

Subject 40 - DISC

Question 4: Briefly state why you changed (or did not change) your judgments after receiving the financial statements in part two of the case.

A. Assessment of the likelihood of making a buy recommendation to your clients:
Greater ability to see financial trends of company using accounting statements did not change buy decisions. Still negative on buy decision.

B. Reliability of the information you analyzed:
Audited financials significantly increased opinion of reliability, but would have felt better if company had capitalized training costs.

C. Relevance of the information you analyzed:
Most of info had relevance, but data is insufficient for analyzing a consulting firm. Consulting firms are typically highly cyclical because top talent gets hired away by clients, leading to high training costs of new employees. During slow sales periods, many consultants in these firms are purged, leading to creation of new competition.

Subject 41 - DISC

Question 4: Briefly state why you changed (or did not change) your judgments after receiving the financial statements in part two of the case.

A. Assessment of the likelihood of making a buy recommendation to your clients:
--low ROE, and sustainable growth
--income growth less then sales growth
--training expense as well as personel expense not in line with statements provided.

B. Reliability of the information you analyzed:
--data do not agree with first part in terms of growth

C. Relevance of the information you analyzed:
--no comparative data to assess competition and project future to make educated decision.

Subject 45 - DISC

Question 4: Briefly state why you changed (or did not change) your judgments after receiving the financial statements in part two of the case.

A. Assessment of the likelihood of making a buy recommendation to your clients:
Increased the likelihood of buy recommendation based on knowing what the company had accomplished financially

B. Reliability of the information you analyzed:
The part 2 info was of significantly greater reliability as it was prepared by an independent 3rd party knowledgeable on such issues

C. Relevance of the information you analyzed:
Greater relevance w/ part 2 materials

Subject 50 - DISC

Question 4: Briefly state why you changed (or did not change) your judgments after receiving the financial statements in part two of the case.

A. Assessment of the likelihood of making a buy recommendation to your clients:
Better grasp on numbers behind story. Solid balance sheet and good cash flow from operations helped comfort level. Also it shows cash is being used for growth. Still not a full grasp of company's history & comfort on it's potential. Also do not understand industry well enough to give stronger recommendation on stock at this time. Short history of company is also concern to warrant higher buy rating.

B. Reliability of the information you analyzed:
As long as the public accounting firm is one I have heard of, I would feel comfortable that numbers reflect company. This adds more reliability to me on CEO comments on company's prospects.

C. Relevance of the information you analyzed:
This provides some meat to earlier case, especially the cash flow statement. It allows me to see how management raises cash and how the decide to utilize it.

Subject 52 - DISC

Question 4: Briefly state why you changed (or did not change) your judgments after receiving the financial statements in part two of the case.

A. Assessment of the likelihood of making a buy recommendation to your clients:
Lowered my likelihood by l level because it's margins (net income in particular) wasn't as high as I had expected it. Overall, I'd still recommend it most likely.

B. Reliability of the information you analyzed:
Haven't change it, the 10K info I consider highly reliable although the CEO's comments aren't as good of a source of info from a reliability standpoint

C. Relevance of the information you analyzed:
Financial statements received help a lot in evaluating multiples and other ratios (liquidity, profitability) and especially the cash flow was important.

Subject 56 - DISC

Question 4: Briefly state why you changed (or did not change) your judgments after receiving the financial statements in part two of the case.

A. Assessment of the likelihood of making a buy recommendation to your clients:
--Not likely, due to lack of info

B. Reliability of the information you analyzed:
--Not very reliable
--Need breakdown of working capital to see what is going on
--OCF is not growing as fast as sales because of large other costs, working capital
--Stock options
--Need accounting assumptions

C. Relevance of the information you analyzed:
--Information analyzed is very important in examining a company
--Understanding a business from a free cash flow perspective
--And also understanding from a performance perspective on the income statement

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Subject 60 - DISC

Question 4: Briefly state why you changed (or did not change) your judgments after receiving the financial statements in part two of the case.

A. Assessment of the likelihood of making a buy recommendation to your clients:
I increased the likelihood of a buy recommendation after seeing the direction of cash flows, increase in assets and stockholders equity. This information was used with the stock price information provided first.

B. Reliability of the information you analyzed:
Reliability increased slightly because the financials were audited. The original 10-K information was viewed as reliable, but the article excerpts were used as opinion.

C. Relevance of the information you analyzed:
There was some relevance placed on the price information on the front page. The next set of financial statements was viewed as more relevant; however it was still missing data I feel is important. I purchase most stocks as a "return-to-the-mean" play.

Subject 62 - DISC

Question 4: Briefly state why you changed (or did not change) your judgments after receiving the financial statements in part two of the case.

A. Assessment of the likelihood of making a buy recommendation to your clients:
The previous materials had no information regarding exp & liabilities, revenues was incomplete. The audited statements and information re: both revenue & expenses.

B. Reliability of the information you analyzed:
Audited reports are superior to other information. Analyst reports based upon audited information is acceptable to me for use in the decision making process.

C. Relevance of the information you analyzed:
The press release information interesting, but not necessarily relevant—same with CEO statements.

Subject 66 - DISC

Question 4: Briefly state why you changed (or did not change) your judgments after receiving the financial statements in part two of the case.
A. Assessment of the likelihood of making a buy recommendation to your clients:
I did not change my recommendation based on the financial statements because my initial conclusion was reinforced by the new information the financial statements. The first set of information was mostly non-relevant to making an investment decision so you cannot make a recommendation on it. The second set showed fundamental problems could be showing up soon.

B. Reliability of the information you analyzed:
The information is about as reliable as an analyst can have. However, just because an auditor has certified the information does not mean it is completely reliable. See Sunbeam, Cendant, Lucent, etc.

C. Relevance of the information you analyzed:
The entire value placed on a company should be derived solely from the NPV of future cash flows. Price without shares outstanding and news articles are not relevant at all. Balance sheet & income statement do not predict long term success but can fortell short or intermediate problems at a company. Therefore, these items do have some relevancy. These financial statements also provide tangible

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Subject 5 - CAP

Question 4: Briefly state why you changed (or did not change) your judgments after receiving the financial statements in part two of the case.

A. Assessment of the likelihood of making a buy recommendation to your clients:
Did not change recommendation due to still insufficient information from theses sources

B. Reliability of the information you analyzed:
Increased the reliability due to the increased volume of information due to the inclusion of prior years

C. Relevance of the information you analyzed:
Increased (more so) due to the ability to calculate some common size ratios for the financial statements

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Subject 7 - CAP

Question 4: Briefly state why you changed (or did not change) your judgments after receiving the financial statements in part two of the case.

A. Assessment of the likelihood of making a buy recommendation to your clients:
Financial statements provide information on the risk of the company. However, investment is not only about the fundamentals of the company. It is also about comparing alternatives. I felt more confident about how the company is doing. But I don't feel confident whether the company is a good investment just by looking at one set of financial statements.

B. Reliability of the information you analyzed:
No change – the information is as reliable as is got. However, I would look at other footnote for possible adjustment.

C. Relevance of the information you analyzed:
Not to relevant to investment decision – market force and comparable are also relevant. Slight improvement but not adequate.

Subject 10 - CAP

Question 4: Briefly state why you changed (or did not change) your judgments after receiving the financial statements in part two of the case.

A. Assessment of the likelihood of making a buy recommendation to your clients:
The company is being very liberal in trying to make its financial statements look good.

B. Reliability of the information you analyzed:
The statements are not free from bias.

C. Relevance of the information you analyzed:
The information is still fairly relevant it is just presented such a way as to give an over optimistic picture of the company.

Subject 14 - CAP

Question 4: Briefly state why you changed (or did not change) your judgments after receiving the financial statements in part two of the case.

A. Assessment of the likelihood of making a buy recommendation to your clients:
More detailed financial information, audited, increased my comfort with the company.

B. Reliability of the information you analyzed:
Audit opinion increased the reliability over a 10K excerp.

C. Relevance of the information you analyzed:
Multi-year data allowed somewhat of a trend analysis to take place. There is very little info that can be used to value the ___ which holds back my likeyhood of recommendation. Also, no stock price chart to help assess mkt demand/supply for the stock.

Subject 17 - CAP

Question 4: Briefly state why you changed (or did not change) your judgments after receiving the financial statements in part two of the case.

A. Assessment of the likelihood of making a buy recommendation to your clients:
No change! 1. Rapid revenue growth is being offset by rapid expense growth resulting in a deterioration in operating profit margins. 2. Accounting for investment in HR is too liberal and a departure from the norm. 3. Dilution.

B. Reliability of the information you analyzed:
The information presented has a high degree of reliability in that the statements are audited and can be verified through management.

C. Relevance of the information you analyzed:
The information is very relevant in its "feedback value" and we know what mgmt. thinks about or expects revenues and headcount (expenses) to be in the New Year. Info. also has some predictive value in tracking growth in revenues and expenses over the brief 3 year history. For more info and to increase the datas timeliness conversations w/ mgmt would be most important and to verify projections, also check w/ competitors.

Subject 18 - CAP

Question 4: Briefly state why you changed (or did not change) your judgments after receiving the financial statements in part two of the case.

A. Assessment of the likelihood of making a buy recommendation to your clients:
I decreased my likelihood of making a buy recommendation after reviewing more information. I consider the company's capitalization of employee training costs to be a gimmick to increase earnings and assets. I believe that if the company's efforts are truly exemplary in this area, it should show up in future results after traditional accounting treatment. When I see departures from GAAP in one area, I have to assume that there may be others.

B. Reliability of the information you analyzed:
When I review financial statements with departures from GAAP that are addressed by the auditors, I am concerned about the overall quality of the information I received. Firms that capitalize costs that should be expensed are those that, in many instances, have a reckoning ahead in the market.

C. Relevance of the information you analyzed:

The company's assertion that retention of employees is paramount to success is subject to some considerable debate. While many may agree with the statement that well-trained employees are valuable, to treat the expense differently from most other firms just because your level of commitment to this theory is higher than normal is misleading at best. I would also take issue with the relevance of the retention/quality theory as well. If their monetary investment truly shows results, they will appear in the firm's results. Also, there has been no qualitative judgment on this training. This could be money spent on company beer blasts or vacation travel that boosts morale and reduces turnover but doesn't do anything for quality.

Subject 21 - CAP

Question 4: Briefly state why you changed (or did not change) your judgments after receiving the financial statements in part two of the case.

A. Assessment of the likelihood of making a buy recommendation to your clients:

Very competitive market with very strong competition.

High emphasis in HR, which is good but not the only important matter.

B. Reliability of the information you analyzed:

The numbers look reliable and the auditor's opinion looks _____.

C. Relevance of the information you analyzed:

The particular sector is very dynamic and very hard to predict the future market performance and product preference. The competitors are bigger than "the Company" which represents hard to compete opponent. Correct market price 50% below 52-week high, looks like an opportunity.

Subject 25 - CAP

Question 4: Briefly state why you changed (or did not change) your judgments after receiving the financial statements in part two of the case.

A. Assessment of the likelihood of making a buy recommendation to your clients:
Addition of EPS gave me info. to calculate EPS growth rate and P/E. The stock seems expensive. Departure from accepted accounting for the industry reduces reliability. I would think other companies w/in the industry face the same HR challenges. The comparison to other companies might be invalid.

B. Reliability of the information you analyzed:
See departure comment above. I would also need to see the other notes.

C. Relevance of the information you analyzed:
The additional financial information in the form of a balance sheet and income statement made the initial info. more relevant. It gives you a basis for industry : market comparisons and evaluation.

Subject 28 - CAP

Question 4: Briefly state why you changed (or did not change) your judgments after receiving the financial statements in part two of the case.

A. Assessment of the likelihood of making a buy recommendation to your clients:
Have less confidence after looking @ financials. Did not see any flags such as debt increase out of proportion with assets & income that would cause major concern. However cash flows are of concern as are the increase of _____ by more than 100% and the costs associated w/ it. Capitalization of those costs could cause an over-statement of income.

B. Reliability of the information you analyzed:
Information is as reliable as any available on publicly traded companies. However, there are limitations to this info, particularly financial statement reliability. It doesn't necessarily give you the whole picture.

C. Relevance of the information you analyzed:
Financial statements have some relevance, but are certainly not the only information needed to make a judgement about a stock. Other relevant information would include company's position in its industry, more detail on now product initiatives.

Subject 32 - CAP

Question 4: Briefly state why you changed (or did not change) your judgments after receiving the financial statements in part two of the case.

A. Assessment of the likelihood of making a buy recommendation to your clients:
Industry is human-capital based, highly competitive, and seemingly has certain accounting issues that are non-standard versus other service businesses. Red flag in auditor's statement.

B. Reliability of the information you analyzed:
I would question the reliability of any accounting firm that would not expense those H.R. costs. I believe it to be aggressive and therefore casting doubt on the whole statements.

C. Relevance of the information you analyzed:
The information was highly relevant in showing that it was potentially completely irrelevant.

Subject 35 - CAP

Question 4: Briefly state why you changed (or did not change) your judgments after receiving the financial statements in part two of the case.

A. Assessment of the likelihood of making a buy recommendation to your clients:
Able to calculate financial ratios to show slowing growth rates and narrowing margins.

B. Reliability of the information you analyzed:
Reliability remained consistently good. Both sources, 10K & audited financial statements provide reliable information. If anything, it improved because the magazine article isn't deemed reliable.

C. Relevance of the information you analyzed:
The financial statements are extremely relevant and provide the foundation for any investment recommendation. Even though getting industry information and research is vital, general magazines would not be an ideal source.

Subject 37 - CAP

Question 4: Briefly state why you changed (or did not change) your judgments after receiving the financial statements in part two of the case.

A. Assessment of the likelihood of making a buy recommendation to your clients:
By amortizing, not expensing, training costs, the net income levels & EPS growth rate are higher than they would be otherwise. Therefore the valuation level is quite likely inflated relative to other competitive companies.

B. Reliability of the information you analyzed:
No change in reliability since it came from audited financial statements.

C. Relevance of the information you analyzed:
There is no change in relevance. The techniques a company uses to obtain & retain employees is internal, not external. The investor is more interested in the results, revenue and not income growth, of the training program.

Subject 38 - CAP

Question 4: Briefly state why you changed (or did not change) your judgments after receiving the financial statements in part two of the case.

A. Assessment of the likelihood of making a buy recommendation to your clients:
Lowered recommendation based on new information regarding accounting practices. The deviation form GAAP may understate personnel costs, especially given high turnover rate and growth rate.

B. Reliability of the information you analyzed:
While the information presented is probably reliable, its interpretation requires reading of notes and auditors opinion to get true picture of cash flow and earnings, as well as effect on balance sheet. One may suspect that other accounting irregularities may exist.

C. Relevance of the information you analyzed:
The information is relevant but this is mitigated by its lack of reliability.

Subject 44 - CAP

Question 4: Briefly state why you changed (or did not change) your judgments after receiving the financial statements in part two of the case.

A. Assessment of the likelihood of making a buy recommendation to your clients:
More verifiable data available

B. Reliability of the information you analyzed:
Much better. Audited info available

C. Relevance of the information you analyzed:
Allowed for greater predictability

Subject 47 - CAP

Question 4: Briefly state why you changed (or did not change) your judgments after receiving the financial statements in part two of the case.

A. Assessment of the likelihood of making a buy recommendation to your clients:
Additional information provided detail of income and expenses gave me more comfort w/ numbers. In addition, audit report let me know financial information was reviewed by independent person.

B. Reliability of the information you analyzed:
Felt it was more reliable due to auditor's report. In this day & age, it seems that financial information reported by the company to the press (and maybe even on the 10-K) could be suspect. Disclosure from auditing firm re: training costs made sense & made the information seem more reliable.

C. Relevance of the information you analyzed:
The relevance of the financial information seems about the same. This information is very relevant in making decisions about companies to buy—but it also must be reliable.

Subject 49 - CAP

Question 4: Briefly state why you changed (or did not change) your judgments after receiving the financial statements in part two of the case.

A. Assessment of the likelihood of making a buy recommendation to your clients:
Too little information. No comparisons to industry. No ratio analysis. Expensing for employees is incorrect and unreliable for true income, networth, etc. Balance sheet needs to be broken down by categories under each heading. Example connect assets—list them. Only one accounting disclosure. Number shares o/s not given. Suspicious of their accounting.

B. Reliability of the information you analyzed:
I question the accounting firm who did the work allowing them to account for employee expenses the way they did. No breakdown of assets and liabilities by category. Too general.

C. Relevance of the information you analyzed:
I question the relevance of not being able to compare numbers to industry and accounting policy on expenses makes it apples and oranges. Lack of breakdown in asset and liability numbers by category. No ratio analysis.

Subject 53 - CAP

Question 4: Briefly state why you changed (or did not change) your judgments after receiving the financial statements in part two of the case.

A. Assessment of the likelihood of making a buy recommendation to your clients:
HR expense seems high: $28,000 capitalized per net hire, vs. $91,490 avg annual compensation. If Co stops growing, will continue to hit earnings. Only generated 158,000 in sales per employee, vs 71.5 + 28 = 99.5 in cost (year 1) per employee added.

B. Reliability of the information you analyzed:
Audited info assumed highly reliable, though not a "9", since the occasional Cascade International or ZZZ Best does crop up.

C. Relevance of the information you analyzed:
Line-item details are of course more relevant than summary statistics

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Subject 54 - CAP

Question 4: Briefly state why you changed (or did not change) your judgments after receiving the financial statements in part two of the case.

A. Assessment of the likelihood of making a buy recommendation to your clients:
Slowing sequential growth in a growth industry

B. Reliability of the information you analyzed:
Fairly high, from 10-Ks and audits

C. Relevance of the information you analyzed:
Fairly high, description of operations and competition in the 10-Ks, the overstatement of earnings by auditors

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Subject 55 - CAP

Question 4: Briefly state why you changed (or did not change) your judgments after receiving the financial statements in part two of the case.

A. Assessment of the likelihood of making a buy recommendation to your clients:
Violate GAAP. Believe its Sup 93-7

B. Reliability of the information you analyzed:
Auditor agreed

C. Relevance of the information you analyzed:
____ so relevant

Subject 58 - CAP

Question 4: Briefly state why you changed (or did not change) your judgments after receiving the financial statements in part two of the case.

A. Assessment of the likelihood of making a buy recommendation to your clients:
Independent auditors report pertaining to salary/training capitalization
Financial statements—most importantly balance sheet and income statement

B. Reliability of the information you analyzed:
Accounting letter with signature assuming it is a "big-5"
Explanation of key issue—capitalization of training
Accounting statements

C. Relevance of the information you analyzed:
Feedback value—high
Timeliness—within SEC timeframe (set by regulators—would like to have it sooner)
Predictive—very low for market value—looks like company with excellent growth and strategic plan—need to know more about operational plan and competition—perhaps more peer group analysis—consulting/software very difficult to analyze.

Subject 61 - CAP

Question 4: Briefly state why you changed (or did not change) your judgments after receiving the financial statements in part two of the case.

A. Assessment of the likelihood of making a buy recommendation to your clients:
Concern over payroll issues.

B. Reliability of the information you analyzed:
General suspicion re. accting policy.

C. Relevance of the information you analyzed:
Very relevant since payroll is such a large item

Subject 63 - CAP

Question 4: Briefly state why you changed (or did not change) your judgments after receiving the financial statements in part two of the case.

A. Assessment of the likelihood of making a buy recommendation to your clients:
Biggest issue was capitalizing employee training costs. I would need to expense that and then run the numbers again. Also, + cash flow was not as high as would have been expected.
In general, I'm wary of the entire HR accounting methodology. So, I'm now neutral and would need to spend more time on the accounting issue

B. Reliability of the information you analyzed:
Both reliability and relevance are key.
Unfortunately, both are sometimes assumed.

C. Relevance of the information you analyzed:
Left blank

Subject 67 - CAP

Question 4: Briefly state why you changed (or did not change) your judgments after receiving the financial statements in part two of the case.

A. Assessment of the likelihood of making a buy recommendation to your clients:
Without having a valuation measure in the first information I had no basis to make a buy recommendation. After learning of the unusual accounting treatment I would even less likely to recommend the stock.

B. Reliability of the information you analyzed:
I treat almost all financial information as if it were unreliable. The use of the unusual accounting treatment would make me even more skeptical than usual

C. Relevance of the information you analyzed:

While all the information given is relevant it is far short of what I would need to know to recommend the stock

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Subject 1 - RC

Question 4: Briefly state why you changed (or did not change) your judgments after receiving the financial statements in part two of the case.

A. Assessment of the likelihood of making a buy recommendation to your clients:
Accounting treatment of HR affects implied growth rate(s)
Negative reaction to large deviations from GAAP (the odd treatment of HR), makes you uneasy about the firm generally

B. Reliability of the information you analyzed:
Replacement cost is certainly up in the air… Not independently confirmed by auditor

C. Relevance of the information you analyzed:
Information presented, thought not exactly reliable in terms of quantification, does manage to raise important issues with respect to growth/risk of firm

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Subject 2 - RC

Question 4: Briefly state why you changed (or did not change) your judgments after receiving the financial statements in part two of the case.

A. Assessment of the likelihood of making a buy recommendation to your clients:
The financial allow the analyst to view trends (i.e. ratio analysis)
Allows to measure the success of the firm from a quantitative standpoint
Helps the analyst forecast and make decisions on tangible data

B. Reliability of the information you analyzed:
The degree of data reliability is enhanced when it carries the "seal of approval" from an accounting firm. The company being a public corporation knows its information must conform to the laws and regulations as required by the industry.

C. Relevance of the information you analyzed:
Relevant to the point the analyst can do ratio analysis on the company
The package of information lacked data about industry trends thought it also did not provide information about the competitive environment (from a quantitative perspective)

Subject 9 - RC

Question 4: Briefly state why you changed (or did not change) your judgments after receiving the financial statements in part two of the case.

A. Assessment of the likelihood of making a buy recommendation to your clients:
The company uses aggressive accounting. I was indifferent to a buy recommendation before I found out about the capitalization of its human resource assets. I would not recommend buying the stock of a company that does not conform to GAAP.

B. Reliability of the information you analyzed:
I thought the reliability was generally higher in the second part. The second part was audited financials, which I assumed to be highly reliable. The first part included an article from a magazine, which is less reliable in my opinion.

C. Relevance of the information you analyzed:
The second part is much more relevant to me as it discloses the aggressive accounting where as the first part simply focuses on sales and competition.

Subject 12 - RC

Question 4: Briefly state why you changed (or did not change) your judgments after receiving the financial statements in part two of the case.

A. Assessment of the likelihood of making a buy recommendation to your clients:
While the financial statements provide more objective information, additional information would still be needed to make a recommendation. This would include both quantitative and qualitative information (future earnings projections, management information, etc.)

B. Reliability of the information you analyzed:
One has to assume that audited financial statements are reliable

C. Relevance of the information you analyzed:
The information presented was relevant and needed in my decision. However, all the necessary information needed to make a decision was not included.

Subject 15 - RC

Question 4: Briefly state why you changed (or did not change) your judgments after receiving the financial statements in part two of the case.

A. Assessment of the likelihood of making a buy recommendation to your clients:
The unavailability of financial information in the first presentation of facts prevented a positive opinion of the opportunity for profit by purchasing the stock.

B. Reliability of the information you analyzed:
The information was reasonably reliable with the exception of the company's treatment of human resource assets. One needs further information to evaluate that.

C. Relevance of the information you analyzed:
The information was reasonably relevant with the same exception.

Subject 19 - RC

Question 4: Briefly state why you changed (or did not change) your judgments after receiving the financial statements in part two of the case.

A. Assessment of the likelihood of making a buy recommendation to your clients:
I did not change my judgment concerning the company after receiving part two. Interesting that even after you exclude the _____ of investment ____ return on assets continue to _____ (albeit a very high ____)

B. Reliability of the information you analyzed:
The reliability of the information did change however when I noticed that certain costs did not conform to GAAP. Ideally, one gives ___ would readjust both income statement and balance sheet to exclude capitalizing certain assets.

C. Relevance of the information you analyzed:
Relevance (predictive value & timeliness) took on more important as more information were gathered. In todays market, once companies report _____ quick action occurs. Normally we find if trends continue (improvement/devaluation) ____ ultimately follows.

Subject 20 - RC

Question 4: Briefly state why you changed (or did not change) your judgments after receiving the financial statements in part two of the case.

A. Assessment of the likelihood of making a buy recommendation to your clients:
Auditor's opinion qualifying the statements was a negative for the income statement The existence of multiple line items on income statement relying on judgment of mgmt regarding replacement cost of employees added uncertainty Cash flow statement became more important vis a vis income statement (not necessarily a bad thing)

B. Reliability of the information you analyzed:
When presented with line items for both "amortization of investment in HR" and "unrealized gain on write-up of inv in HR to replacement cost" on income statement I believed too much reporting discretion was being given to management

C. Relevance of the information you analyzed:
Relevance score remained above average because I had an interest, nonetheless, in an assessment of the company's expenditures/value for human resources—but mixed in with traditional financial statements it obfuscated results I'm used to seeing

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Subject 23 - RC

Question 4: Briefly state why you changed (or did not change) your judgments after receiving the financial statements in part two of the case.

A. Assessment of the likelihood of making a buy recommendation to your clients:
The company seems to be financially sound (here we have balance sheet info). But we still do not have a per share info.

B. Reliability of the information you analyzed:
I feel much more confident when I can see more detail on financial info (aggregates are not usually good—there might be noise in aggregates).

C. Relevance of the information you analyzed:
This is overall much better info. Still need management's discussion of opps, competitive analysis and outside sources of info.

Subject 24 - RC

Question 4: Briefly state why you changed (or did not change) your judgments after receiving the financial statements in part two of the case.

A. Assessment of the likelihood of making a buy recommendation to your clients:
I changed my opinion downward after reading the financial statement based solely on human resource footnote. The reason is that I am a big believer in consistant recording treatment, it is imperative to me that I always compare "apples to apples" and change from this _____, in my mind, concerns regarding the company.

B. Reliability of the information you analyzed:
I think the info. is still reliable in general. The future is _____ and pointed out in the opinion letter. I do _____how the asset was calculated. But my major concern is more of credibility. No references in "A" above.

C. Relevance of the information you analyzed:
Extremely relevant, no so much because of treatment or how is ____ calculated, but because of the _____ treatment that differs from GAAP. Who are those people (management) to think their accounting treatment is better than GAAP. In summary, credibility is lacking.

Subject 30 - RC

Question 4: Briefly state why you changed (or did not change) your judgments after receiving the financial statements in part two of the case.

A. Assessment of the likelihood of making a buy recommendation to your clients:
--Good strong positive cash flow from operating activities good, little use of debt in its financial structure, good solid operating cash flow growth, although slowing down some however -- P/E is around 37. The Co's real growth (based on fully diluted share) is slowing, espec. when you take out the hr capitalization effect, only 22% growth and slowing

B. Reliability of the information you analyzed:
Independently verified by a public accounting firm.

C. Relevance of the information you analyzed:
Believe this too be reliably relevant. Especially the audited financial statements.

Subject 31 - RC

Question 4: Briefly state why you changed (or did not change) your judgments after receiving the financial statements in part two of the case.

A. Assessment of the likelihood of making a buy recommendation to your clients:
Did not anticipate a recommendation and did not change because the accounting results and treatments of various accounting issues seem to be (to me) very highly variable in this area. Also, the lack of a long history to better determine long-term performance made me squeamish at first. My original skepticism was borne out by the complete set of financials and auditor's opinion.

B. Reliability of the information you analyzed:
Felt that the reliability was increased greatly by having access to the full set of statements, but only in volume. The original date, though reliable, did not present the full picture.

C. Relevance of the information you analyzed:
Considered the full financials much more relevant and was correct, I believe, in my position.

Subject 33 - RC

Question 4: Briefly state why you changed (or did not change) your judgments after receiving the financial statements in part two of the case.

A. Assessment of the likelihood of making a buy recommendation to your clients:
Declining op. margins, aggressive capitalization of HR cost

B. Reliability of the information you analyzed:
Equally reliable b/c from SEC documents

C. Relevance of the information you analyzed:
More relevant b/c had more complete acct. stmts and acct. footnotes.

Subject 36 - RC

Question 4: Briefly state why you changed (or did not change) your judgments after receiving the financial statements in part two of the case.

A. Assessment of the likelihood of making a buy recommendation to your clients:
Inclusion of numbers other than revenue & personnel expense were important. Revenue growth is only one component of eventual profitability, and personnel expense is an incomplete picture of total costs.
The net income of the company is expected to grow an impressive 29% which is less than the previous year but still a good growth number. Even if you back out the benefit achieved by deviating from GAAP the growth is 13%. Also, the argument is compelling to deviate from GAAP.

B. Reliability of the information you analyzed:
More numbers that could be used to confirm.
The report from the independent auditors.

C. Relevance of the information you analyzed:
More numbers that could be used to confirm.
The report from the independent auditors.

Subject 42 - RC

Question 4: Briefly state why you changed (or did not change) your judgments after receiving the financial statements in part two of the case.

A. Assessment of the likelihood of making a buy recommendation to your clients:
Unlikely due to unreliability of information (and related earnings) regarding "investment in human resources"

B. Reliability of the information you analyzed:
Investment in human resources appeared to be extremely unreliable. Other information's reliability appeared to be reasonable. This one factor increases risk of investment above appropriate levels.

C. Relevance of the information you analyzed:
Mostly relevant. Once again fact paced changing industry makes "investment" largely irrelevant.

Subject 43 - RC

Question 4: Briefly state why you changed (or did not change) your judgments after receiving the financial statements in part two of the case.

A. Assessment of the likelihood of making a buy recommendation to your clients:
Revenue growth does not lead to corresponding net income growth. Cash flow increased accordingly but I would expect to see expanding margins on higher revenue levels.

B. Reliability of the information you analyzed:
Actual financials are easier to define as "reliable" than are notes to the financials. The notes don't mean much out of context to the financial statements

C. Relevance of the information you analyzed:
Not much change in relevance, I would need more info on the industry, competitors and business strategy to make the "black and white" financials have relevancy in interpretating them for investment decisions

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Subject 46 - RC

Question 4: Briefly state why you changed (or did not change) your judgments after receiving the financial statements in part two of the case.

A. Assessment of the likelihood of making a buy recommendation to your clients:
Obtaining and reviewing the income statement made me more likely to buy the stock. EPS growth is very important to my decision, and "the Company" has done nicely.

B. Reliability of the information you analyzed:
No change. It seemed to be as reliable as the previous information.

C. Relevance of the information you analyzed:
Some of the more detailed accounting information is not relevant to me. I depend on my equity analysis to dig through this information.

Subject 48 - RC

Question 4: Briefly state why you changed (or did not change) your judgments after receiving the financial statements in part two of the case.

A. Assessment of the likelihood of making a buy recommendation to your clients:
Financials back up decision not to acquire stock. Large investment in employees creates large execution risk.

B. Reliability of the information you analyzed:
Fairly reliable only w/ auditor comments. Company financials are skewed if taken @ face value.

C. Relevance of the information you analyzed:
Very relevant. Net income is not growing at the stated rate.

Subject 51 - RC

Question 4: Briefly state why you changed (or did not change) your judgments after receiving the financial statements in part two of the case.

A. Assessment of the likelihood of making a buy recommendation to your clients:
Before I had financial statements, I was unsure if the company had any earnings growth, what the margins were or even if they had earnings. Now with knowledge of earnings growth at an increasing rate I am more comfortable with the direction the company is going. I am still unsure about the competence of mgmt.

B. Reliability of the information you analyzed:
The information seemed reliable except for human resources estimates.

C. Relevance of the information you analyzed:
Human resource estimates were not of quantitative relevance although it's nice to know the company can attract & keep employees. Though the numerical increase in staff was interesting, the costs expected were more relevant.

Subject 57 - RC

Question 4: Briefly state why you changed (or did not change) your judgments after receiving the financial statements in part two of the case.

A. Assessment of the likelihood of making a buy recommendation to your clients:
First, initial review … aggressive hiring plan Second, F/S indicated aggressive accounting for investment in human resources. Confirmed by auditors comments.

B. Reliability of the information you analyzed:
Good reliability assuming company conforms to GAAP with exceptions noted.

C. Relevance of the information you analyzed:
The financials confirmed … based on a quick review … that the business plan was based on aggressive hiring that forced the company to use creative accounting technique.

Subject 59 - RC

Question 4: Briefly state why you changed (or did not change) your judgments after receiving the financial statements in part two of the case.

A. Assessment of the likelihood of making a buy recommendation to your clients:
Even less likely because of the accounting of the replacement cost values of their human resources. Seems very unusual.

B. Reliability of the information you analyzed:
About the same because this is an audited statement and seems is line to me.

C. Relevance of the information you analyzed:
This info is more relevant than the previous because of the more abundant information that I feel is important to arriving at a decision.

Subject 64 - RC

Question 4: Briefly state why you changed (or did not change) your judgments after receiving the financial statements in part two of the case.

A. Assessment of the likelihood of making a buy recommendation to your clients:

Obviously, after receiving only a brief summation of what the company's main line of business was and only a limited set of financials (revenue growth for a few years), one hardly has enough information to make any kind of stock recommendation whether it is buy or sell. Once I received the financials, again I have very little to go by as I only have a few years to go by. This is why I remained skeptical as far as making a recommendation either way.

B. Reliability of the information you analyzed:

The reliability of information came under some question especially after I saw how the effects of capitalizing the replacement cost of human resource assets materially affected the income statement and balance sheet numbers. This practice essentially overstated total assets by 10% and inflated earnings by 15-20%. The public accounting firm did not feel the effects of capitalizing these replacement costs were in total conformity with GAAP guidelines.

C. Relevance of the information you analyzed:

Although a company's financials is certainly a relevant set of information when analyzing a company, it is merely the tip of the iceberg. One must have a complete understanding not only of the financial viability, profitability of a company but one must also get a sense of the overall dynamics with which the company faces (competition, market environment, cyclicality of business, etc.)

Subject 65 - RC

Question 4: Briefly state why you changed (or did not change) your judgments after receiving the financial statements in part two of the case.

A. Assessment of the likelihood of making a buy recommendation to your clients:
Capitalization of human resources is far too subjective a concept to introduce into GAAP-based financial statement. There is too much subjectivity already contained in today's fin. statements. Adding human resources would further add to the confusion. It's relevant to know about the number of employees & their skill levels. Also wholly unreliable & irrelevant to know what value mgmt places on this "asset".

B. Reliability of the information you analyzed:
Management is notoriously over-optimistic. Add to management's general perspective the ____ influence of stock options that encourages the manipulation of numbers and you have a recipe for "fraud". If there are honest managers I haven't met them yet. We need to rid fin. statements of subjectivity, if at all possible. Management has to much leeway—treat GAAP rules as though it is the tax code.

C. Relevance of the information you analyzed:
Management's subjective analysis of the worth of its employee base is wholly irrelevant, if not totally misguided and designed to mislead investors.

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