

THE RELATIONSHIP BETWEEN A DEPARTMENT LEVEL MANAGER'S  
KNOWLEDGE OF FINANCIAL STATEMENTS  
AND THE CORPORATION'S NET INCOME

by

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## Abstract

This proposal considers corporate financial efficiency related to management personnel. It sought to investigate the relationship between department level managers and the corporation's net income. Possibilities of encountering distracted managers who lost focus of the corporation's financial goals existed. Such possibilities would necessitate creativity in designing solutions. Possibilities also existed of encountering focused managers who had maintained consistency in mode of operation on their jobs. The possible availability of these two groups of managers within the pool of participants gave the research a window into the world of department level managers in the context of this investigation. The quantitative nature of this inquiry made it possible to carry out a purely objective assessment of the situation through scientific investigation. Out of a pool of 1102 executives, an expert panel of 12 was selected from among department managers representing different tertiary educational qualifications and diverse experiential backgrounds. The research design and methodology involved the use of Delphi Technique, which exposed participants to two rounds of surveys to see how much consensus they could build or how much disparity they would create between their first and last responses. This engendered objectivity, as the floodgates were not opened to possibly unverifiable participants who could have diluted the research strength. Delphi technique's multiple iterations enabled participants to think their responses through, based upon their personal knowledge and experience. This approach produced conclusions that were free from bias. In

filling the identified knowledge gap, this research has found that no significant correlation exists between the two variables. Further study is, therefore, recommended in order to ascertain reason for the non-existence of significant correlation. The consensus building features of Delphi Technique enabled the research to observe a convergence that showed the lack of significant correlation.

## Dedication

This dissertation is dedicated to my wife, Grace, and children, Victor, Blessing, Cecilia and Benedict for designing the production set, providing the props, manning the cameras and consoles, and fostering the enabling environment or my writing. They also stayed away from anything that could distract me while writing. They made sure that all the lights and special effects were on me. Furthermore, the memory of Sir Fred Nwosu, Sr., and the philosophical foundation that he and his wife, my mother, Esther, laid were instrumental to the very essence of my insatiable appetite for self-improvement, without which the pursuit of a Ph.D. would not have been conceived.

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## CHAPTER 1. INTRODUCTION

### Introduction to the Problem

The book value of a company's equity is equal to the total amount that the company has raised from its shareholders or retained and reinvested on their behalf. If a company has been successful in adding value, the market value of the equity will be higher than the book value (Brealey, Myeres and Marcus, 2003). Activities pertaining to raising the said amounts are performed by managers of the various departments through engaging their personnel in their respective departmental functions towards raising (earning) those amounts. Those managers may not be the ones to reinvest the earned amounts. However, their identification of areas of need in their various departments has the capacity to drive the final decision of a reinvestment strategy. There appears to be a need to know whether or not those managers understand their respective stakes in the success or failure of their organization. This is because such understanding can enable them to make informed decisions regarding what must be done to maintain or increase the book value of their corporation. This proposal, therefore, intended to investigate the relationship between a department level manager's knowledge of financial statements and the corporation's net income. In the meantime, the purpose here was to determine the correlation between the two variables. This would involve

looking at situations in which department level managers demonstrated a grasp of financial statements and situations in which they did not.

In examining firm-wide financial statements, department level managers identify patterns, some of which are worth adopting and others that are malignant. Kallman (2007), found in his research, “Regular (and sometimes surprise) inspections assure the most effective application of this risk identification technique” (p. 59). Department level managers may not have been hired as ‘risk managers’, but may still conduct the above-said regular inspections. However, businesses face risks of loss of money and bankruptcy. Because of those risks, every manager appears to be a risk manager and performs regular inspections, since he or she has to ensure that the organization represents the interests of the shareholders. Because managers’ risk management and inspection roles are only apparent at this point, and they supposedly make decisions in the process of their job assignments, it is only probable that those decisions are knowledgeable and capable of helping the corporation to eliminate loss factors. This is why the focus on company’s book value by Brealey et al. (2003) speaks to the expected outcomes of a manager’s apparent risk management and inspection responsibilities. It is not known, therefore, whether the managers are able to interpret and use the financial statements, and what their knowledge or its lack contributes to their said decisions. Corporations appear to take risks in their operating, financing and investing activities. Departmental managers are partakers in those activities as pertaining to their respective departments. If a departmental manager makes the right decisions, the corporation will maintain or increase its

book value, in line with Brealey et al. (2003) and Kallman (2007). If a departmental manager, on the other hand, makes the wrong decisions, the corporation will be sent downhill.

### Background of the Study

Financial statement knowledge on the part of a department level manager is probably an important consideration in his or her official function. It is yet to be discovered whether or not that knowledge plays a role in the quota that a manager contributes to his or her corporation. If a manager acquires that knowledge and it contributes to the corporation's net income, then things are just the way they should be. If, on the other hand, a manager has financial statement knowledge but company authorities adjudge his or her contribution to net income as below expectation, then it could be said that such knowledge does not contribute to net income. Incidentally scholarly research has not pinpointed net income increases that have arisen from managers' knowledge of financial statement. This has created an opportunity for a study to fill this gap in knowledge.

In a research dealing with knowledge of corporate finance rules and regulations, Moehrle, Reynolds-Moehrle and Tomlinson (2002) discovered that few users of financial statements know what constitutes the universe of GAAP or where such information can be found (p. 6). Generally accepted accounting principles (GAAP) are rules and regulations that govern the preparation and presentation (reporting) of accounting records. Managers of accounting and finance related departments are believed to have taken courses of study that



pertain to these rules, and therefore, are also believed to know about their existence and their application. If on the other hand a departmental manager falls within the category described by Moehrle et al. (2002), then the corporation is in danger of falling into the hands of investigators and enforcers of GAAP.

Receiving a salary as a human resources manager, for instance, does not mean that a manager should not understand financial statements. The ability to work well as a manager derives from an all-round exposure to the benefit of the overall organization. Therefore, knowing that GAAP exists is not an end, but just a means to an end. Department managers in the finance and accounting disciplines are in a position to assist their counterparts that lead other non-accounting and non-financial departments in understanding, interpreting and applying the generally acceptable accounting principles. That understanding can be achieved more easily with a firm grounding in financial statements. It must be admitted that such non-fiscal departments do not need in-depth knowledge of the financial statements. However, their knowledge and understanding of it will be an asset rather than a liability to the organization, in line with the postulation of Moehrle et al. (2002).

When auditors look at an organization's financial records, they look first for specific things. In that process, they often run into things that they ordinarily do not anticipate, for example, incorrect entries, non-recognition of items, apparent slips that may have been preplanned or unauthorized expenses. Pro-active departmental managers perform auditing tasks before the external auditors arrive. This singular action saves the company's time in many respects. To create this saving, department level managers should use charts and graphs to compare

quarterly, according to Ratcliffe (2004, p. 43). The said research further reveals based on its findings that managers should identify similarities and non-similarities that emerge in the form of activities that produced more results for their respective departments versus inactions that set their departments back in terms of financial returns. It emphasizes that managers should find the difference between specific figures and ratios, and if those differences are errors, an internal self-check will detect them. A research such as the above enabled this substantive study to look in the right direction for identifiers of correlation between managers' financial statement knowledge and their corporation's net income. According to the above research, if errors are repeated, knowledgeable managers are able reasonably to suspect foul play and take the necessary steps to rectify both the entries and the functionaries. The managers should look at periodic income using charts, graphs, tables and any other tools that may be helpful (Ratcliffe, 2004). An example of such helpful information can be found in common-size statements such as balance sheet and income statement.

Table 1. Sample Common Size Statement

	Normal	Normal	Common-Sized	
	2007	2006	2007	2006
Cash	8,500	15,000	12%	20%
Inventory	10,000	30,000	37%	30%
Receivables	23,000	18,000	26%	20%
Investments	15,000	12,000	25%	30%
Total Assets	56,500	75,000	100%	100%

A common-size statement is one in which the shown balances are also represented in percentages in order to indicate what percentage of the total such an item represented. Therefore, two figures are presented in the document for each item. One figure is the actual dollar balance and the other is the percentage equivalence. It enables a department or the total company to compare its state of affairs either between the departments, subsidiaries or between business periods like years, quarters or months. This common sizing can be done separately for assets as for liabilities, thereby enabling the necessary analyses that the corporation would want to carry out. This same format can be used for income statement in which the common-size income state will contain numbers and percentages for sales, cost of goods sold, gross profit, taxes, and total profit.

#### Statement of the Problem

The problem that has been identified by this study comprises of department level managers, corporations, net income and managers' knowledge of financial statements. Literature has addressed success of managers in corporations. Much has also been written regarding financial statements, especially pertaining to the success of companies. Researchers have also extensively studied corporations. Incidentally scholarly research works reviewed do not mention the percentage contribution of managers to their corporation's profit. They also do not address the influence of those managers' levels of general knowledge or financial knowledge on net income. It is thus unknown whether the profits recorded against those corporations in their published annual accounts

arise due to the managers' hard work, years of experience in industry or specific job position, level of general education or knowledge of financial statements.

As the reviews of research progressed, it became certain that no mention was being noticed regarding the afore-mentioned situations. Consequently, this investigation decided to move in the direction of filling the gap. Among all the mentioned gaps identified, it was important to this study to know whether managers' contributions to their corporations' bottom-line figures are due to their respective levels of financial knowledge. It would ordinarily be attractive to inquire into their general knowledge. However, because public corporations are formed for the purpose of providing profit to their owners, this study was more interested in the role of managers' financial knowledge than the role of their general knowledge.

### Purpose of the Study

The purpose of this quantitative study was to use the Delphi research design technique to discover whether a department level manager's knowledge of financial statements would boost his or her department's performance as a contribution to the corporation's net income, and whether the department's financial success had anything to do with the manager's knowledge (or lack thereof) of financial statements. In the context of this topic, therefore, a discussion of the extent to which a department level manager should examine firm-wide financial statement was important. This investigation thus seeks to know whether or not a manager's theoretical exposure translated to hands-on approaches in job

performance that led to the department's financial growth. This investigation desired to find out whether the manager's goal orientation with members of his or her department based on his or her level of knowledge could be a predictor of the department's success or failure, which might contribute to their corporation's overall book value.

According to Robson (2002), "The pattern of relationships between variables may be of interest in its own right, or there may be a concern for establishing causal links" (p. 157). Robson's (2002) statement points to a need for practicality in demonstrating pertinent knowledge in terms of standard operating procedure so that predictions can be positive, and when the results are attained, they will fall in line with such predictions. The intended research here examined and analyzed a possible scenario where a department level manager's knowledge (or a lack thereof), of financial statement expertise had a bearing on firm-wide net income. This was, in essence, a search for the correlation between that knowledge (or lack of it) and the corporation's net income. Whenever net income is mentioned within finance circles, the tendency is that factors and contributors to the net income are immediately considered. Under such a situation, possibilities exist for myopic consideration of the substantive subject. That is why this investigation took the scientific approach described above.

#### Rationale

The rationale behind this study was because reviewed literature either addressed the success or failure of corporations, or recommended courses of

action for managers and their corporations. Most importantly, researches that dealt with knowledge management were not specific to financial statements. They dealt generally with social capital in which they discussed management effectiveness and the human value interface. Since those concepts do not align themselves with the core direction of this investigation the subject articles could not be cited here. With those emphases outside the gap that was identified, this investigation sharply focused on the relationship between a department level manager and the net income of his or her corporation, and gave targeted considerations to them.

The closest research works came to that knowledge for managers was their mention of tools such as available capital, debt ratio and other critical criteria that impact a corporation's net income. In order to pinpoint the subject of this investigation, recognition must be given to profitability, leverage and other ratios that help to determine the financial health of a corporation. They include Return on Assets, Operating Cash Flow (OCF), Return on Equity, Return On Revenue (ROR), Profit Margin, Retention Ratio, Free Cash Flow To Equity (FCFE), Return On Equity (ROE), Net Investment Income, Investment Income, Future Income Tax, Net Operating Income (NOI), Standalone Profit, Revenue and Retained Earnings. Some of them are used in the necessary calculations that lead to determining exactly how profitable or liquid the corporation is. Others are used in calculating how much or how little leveraging the corporation is able to enjoy. It became necessary, therefore, to define only the net income, since the ratios and formulae were likely to be of no consequence to this study.

Byard and Cebenoyan's (2007) research report states, "results support the idea that analysis are capable of sophisticated analysis of firm's financial statements" (p. 12). By extension, the research categorically expects a manager to understand the factors that facilitate the efficient operation his or her firm, and that such understanding should be based on an understanding of the contents of the corporation's Income Statement, Statement of Retained Earnings, Cash Flow Statement and the Balance Sheet. The research acknowledges schools of thought that place high premium on accounting ratios, but posits that a manager will perform better if he or she relies on financial statements rather than accounting ratios.

The assertion made by the above authors' points to a possible relationship between operational efficiency and the knowledge of financial statements. Considering that the researchers considered operational efficiency, they were categorically referring to operations carried out in the corporation. Since every publicly traded corporation engages in the three main activities of operating, financing and investing, Byard and Cebenoyan's (2007) reference to operational efficiency could very well mean efficient performance in all those activities. If this interpretation is right, then in all probability, a correlation exists between a department level manager's knowledge of financial statements and his or company's net income. Because of the above reference, this investigation was motivated to either confirm or debunk that probability in the context of this research topic.

Net Income is an amount listed on the very last line of a company's Income Statement, determined by subtracting all known expenses from all known revenue. Those revenues arise characteristically from sales of services or products as well as collections. The expenses arise normally from cost of good sold, general administration, expenses before insurance, taxes, and others such as loss due to inflation, and depreciation.

Since researchers are either uninterested in the correlation between the above-described net income and the knowledge level of those who are employed to achieve it for the corporation, or find no value in such a study, this investigation will not only seek to plug that knowledge hole, but also hopefully discover why research on this specific problem is potentially non-existent.

#### Research Questions

In pursuit of an understanding of the correlation between a manager's knowledge of financial statement and the corporation's net income, diverse questions and assumptions arise. While seeking the understanding of a relationship, these questions tend to also raise other concerns. This investigation incorporated all those concerns in the pertinent research questions, and used them to inquire into the said relationship. The questions follow hereafter.

What is the relationship between a department level manager's knowledge of financial statements and the corporation's net income?

To effectively answer the research question, diverse thoughts that are best presented and viewed in the form of questions became inevitable. Those are



management, investigative, and measurement questions that constitute integral part of the research question as follows:

1. Management question – What percentage of the overall net income contributed by a department level manager indicates his or her knowledge of financial statements?
2. Investigative and measurement question – To what extent can a manager’s knowledge of financial statements quantifiably relate to high or low corporate net income and influence the corporation’s achievement of its overall objective of attending to the well-being of the shareholders?

In answering the management, investigative and measurement questions, the aforementioned thoughts re-emerged because they were the substantive issues that surround an investigation into the correlation that was sought after in this study. Therefore, sharing those thoughts as a way to chart the course to finding the correlation became necessary, especially as research participants were involved in tackling the investigative and measurement question. The search for answers to these multiple questions, which were essentially thoughts, will be conducted in the process of gathering and analyzing data. That process would not be seen or known about by readers of the final report, as they were only clues that led to the answering of the actual research question. The thoughts (questions) that serve as the invisible ‘turning wheels’ in the gathering and processing of data were encapsulated in the above summary questions.

#### *Hypotheses*

Null

Ho<sup>1</sup> There would be no significant relationship between financial knowledge scores and income performance ( $p < .05$ )

Alternate

H<sup>1</sup> There would be a significant relationship between financial knowledge scores and income performance ( $p < .05$ )

Null

Ho<sup>2</sup> There would be no significant interaction between financial knowledge category (Low, Medium, and High) and income categories (Growth, No change, and Decline),  $p < .05$

Alternate

H<sup>2</sup> There would be a significant interaction between financial knowledge category (Low, Medium, and High) and income categories (Growth, No change, and Decline),  $p < .05$

### Significance of the Study

The significance of this study did not arise from a research study by Howlett, Kees and Kemp (2008), but is strongly supported by it. In the said study, the researchers first hypothesized, “In the absence of basic financial knowledge, the consumers' consideration of future consequences (CFC) will have little influence on the likelihood of contributing to a 401(k) plan” (p. 6). This hypothesis appeared to be a parallel variation to a hypothesis in the overall research being conducted here. To ascertain whether Howlett et al.'s (2008) research opens a window into the world of this substantive study, further dissection of that

research work showed the researchers saying, “in the absence of financial knowledge, department level managers’ consideration of their corporation’s future consequences will have little influence on the likelihood of contributing to a net income effort” (p. 6), which indirectly makes the statement whose proof is being sought. This means that the same situations exist for corporations as they do for individuals.

Consequent upon above strengthening of this study’s significance, an emphasis was placed on the financial knowledge needed for long-term financial decisions, which the researchers explained as only performed by a conscious effort. The apparent seriousness of future consequences drives all company efforts. The absence of basic knowledge, therefore, in the context of a department level manager and the corporation’s net income, means that the more the knowledge the more the likelihood of deciding in favor of future success. Conversely, the less the knowledge, the less the likelihood of deciding in favor of future success because the knowledge necessary for making such a decision is lacking. Howlett et al (2008) turns out to be about the only strong voice in the direction of this substantive study.

#### Assumptions and Limitations

Review of literature necessitated concentration on scholarly research. Several research works dwelt on the level of profits made by corporations, knowledgeable executives, mergers and acquisitions, and other subjects that appeared to describe current trends in industry and commerce. The different

problems identified in all those research works helped to generate assumptions, which might be confirmed by this investigation. The assumptions were outlined thus:

1. Department level managers are expected to know a lot about finance.
2. Corporations seem to hire departmental managers from different fields and also expect them to know finance.
3. Finance department managers know more than others about finance.
4. Accounting department managers know slightly less than Finance managers, but know more than others about finance.
5. Someone who cannot interpret his or her monthly bank statements may also not be able to interpret corporate final accounts.
6. Only managers know whether finance knowledge applies to the jobs they do.
7. Corporations also care about making the right choices for staff advancement.
8. The desire for profits underscores shareholder interest in companies.
9. A manager once hired becomes responsible for the company's success.
10. Company success may relate to executives' disregard for finance knowledge.

### Conceptual Framework

The conceptual framework revealed departments on one hand, and the corporation on the other hand (See Appendix A). It also showed the shareholders

on one hand and the market (for those corporations that make products or services for the market) on the other hand. This framework enabled research to stay on track as well as facilitate the inward or outward adjustment of the study by way of expansion or contraction. The numbers assigned to the boxes placed clockwise were for the purposes of order and sequence. They did not possess calculable weights or values. The relationship first shown in the first rectangle at the top left of the framework indicated a give-and-take relationship with the corporation. This showed that the department (with its manager) was an integral part of the organization.

In order to understand further who make up the departments, the various departments of the corporation were shown, with the managers' seniority levels that were based on either longevity with the corporation, longevity in profession or knowledge of the industry or office (See Appendix B). It also revealed the professional or educational background of the substantive managers and their exposure based on activity. It was also necessary to visually clarify potential departmental contribution to total company financial objectives. Each manager, with his or her department, should be able to contribute a certain percentage, and such contribution should be understood as related or unrelated to the manager's level of comprehension of the financial statements (See Appendix C). Source bases of this study's opening assertion were current and retired departmental managers. An effort to confirm that assertion would be made through the use of Delphi technique to elicit the assertion or contradiction thereof. This is especially

because of the consensus-building component of the study design, which was key to the much-needed understanding.

### Organization of the Remainder of the Study

The remainder of the study is be organized in four sections. This being the first chapter, the next one deals with the scholarly research reviews, and the third presents the plan for collecting and analyzing data. In the fourth section, results of the investigation are presented and discussed to see their pros and cons. The last section contains recommendations or suggestions for further investigation into areas that are beyond the scope of this investigation.

## CHAPTER 2. LITERATURE REVIEW

### Introduction

Balance sheet, cash flow statement and income statements are the flagship documents that contain high level accounting records for a broad picture of any organization. Koenig (2004) states, “understanding the big three—balance sheet, profit or loss statement, and cash-flow statement—will whet your appetite to learn more” (p. 12). In order to successfully deal with the topic of the intended investigation, two variables stood out. They are *knowledge of financial statements* and *the corporation’s net income*. It also became clear that the department level manager stood in the middle, while the study sought ways and means to confirm whether or not his or her increased knowledge of financial statements was related to the net income of the corporation. Those two variables compelled the review of literature to explore three major aspects of the study. The first one deals with the types and amount of financial knowledge involved in publications. The second one deals with the act of examining financial statements. The last aspect deals with circumstances surrounding a manager’s knowledge of financial statements.

In the first instance, it became clear that finance and accounting rules and regulations mattered immensely. It was also noticed that some managers sought knowledge because it made them look good and eligible for higher wages. Such income driven knowledge created increased curiosity in how much financial

knowledge was applied at work, how knowledge base was identified, how the managers and their corporations achieved net income, and the relevance of that knowledge to the managers. Shareholder well being turned out to draw increased attention, as a manager that did not know about shareholder well being could only emphasize job versus career or profession.

In the second instance, examining financial statements became prominent because literature appeared to wonder whether the managers even spared time to examine the Balance Sheet, Cash Flow Statement, and Income Statement. The criticality of this instance led to the pursuit of resources for determining extents of examining the statements, extents to which financial knowledge need is recognized, and the managers' breadth of personal knowledge in the area of finance.

Finally, some patterns that emerged drew major attention to scenarios of management knowledge in which some importance was attached to a manager's ability to add value to the corporation. Such value added on the net income would also become crucial. The manager's challenge to become and remain responsible and accountable added the components of consciousness, good personal citizenship, and excellent professional behavior to the list of requirements for an ethical conduct of the manager's business.

With all above curiosity in the search of pertinent scholarly work, research studies pointed in directions that elucidated the subject of the intended investigation. The studies that stood out the most are reviewed hereinafter, with the intention of finding bases for deeper understanding of the subject matter.



## Types and Amount of Finance Knowledge

### *Knowledge of Rules and Regulations*

Knowledge of rules and regulations in this subject area draws attention to Sarbanes-Oxley Act of 2002. It featured in a research study in which Frieswick (2005) reports, “31 percent of public-company CFOs said that before the passage of the Sarbanes-Oxley Act in 2002, their CEOs might have been ignorant of major financial fraud in their companies” (p. 9). Whether such a situation was for purposes of alibi or that the level of CEO’s knowledge of financial activities was truly low remains unclear. Either way, this post-ENRON Act has shown that whether real or faked, ignorance of financial activities, recording, and reporting plays important roles in the life of an organization. Frieswick encapsulates that ignorance in the perception held by CFOs regarding their CEOs’ level of involvement (knowledge) in transactions gone bad. He reports finally that only 49% of CFOs state that CEOs are not ignorant of the goings-on in the financial life of their corporations. In the study, Frieswick (2005) reports that 20% were unsure of the CEO’s level of awareness.

In a personal testimony reported by the research, the chairman and CEO of an automobile company ran his corporation for nearly 10 years without any knowledge of finance. The man’s confession, according to Frieswick (2005) states,

We were in a meeting, and I couldn't follow some of the detailed financial and balance-sheet discussion. I [couldn't figure out] what should be done because I couldn't understand the issues. Realizing that his ignorance put

him at a disadvantage, Jackson went back to school to study accounting and finance. (Frieswick, 2005)

The automobile company chief confessed that he had gained a full understanding of the financial principles and metrics that most affect his company. Frieswick's research study is a tool for navigating the world of company top executives. The confession made by the researched CEO points to the correlation between his knowledge of financial principles and the success of his company.

Another research by Howlett, Kees and Kemp (2008) found support in Kozup, Pagano, and Greyer (in press) stating "Beyond important "psychological" variables such as self-regulation and consideration of future consequences (CFC), basic financial knowledge is a critical factor in financial decision making" (p. 7). For further substantiation of the argument, Howlett et al. (2008) cited Perry and Morris (2005) and Lusardi and Michelle's (2007) works stating that focused financial knowledge when making financial decisions is consistent with prior studies that have demonstrated the positive role of financial education in financial planning behavior. All these arguments push a strong case for knowledge of financial statements as a catalyst to a corporately sensible financial behavior, which a manager could also use for self-regulation.

Howlett et al. (2008) concluded their support for the argument by drawing attention to results from Fox, Bartholomae, and Lee (2005) stating that they shared the same findings in both studies, which held that financial knowledge influenced financial decision making, and that financial literacy involved one's understanding and knowledge of financial concepts and its imperativeness for

effective consumer financial decision making, whether as consumers or suppliers (Howlett et al., 2008). These findings, according to Howlett et al. (2008), reinforce the importance of sound financial knowledge, which is the core of this overall research

Practitioners face a temptation to use accounting ratios as tools for answering the question for which this research is being conducted. Incidentally, Byard and Cebenoyan (2007) published the result of their research, revealing that “analysts' forecasts reflect an understanding of firms' operational efficiency based on information from firms' financial statements that is more sophisticated than simply examining firms' accounting ratios” (p. 451). This means that a manager’s versatility in the ratios is not enough to prove that such a manager possesses enough knowledge to conceptualize, prepare and present forecasts. Their assertion is based upon the fact that using current accounting figures to project immediate and distant future will be more beneficial to a corporation than using ratios, so long as a manager operates within the boundaries of the generally accepted accounting principles.

Fogarty, Graham and Schubert (2007) said,

Some sensitive issues that require the auditor to assess the severity of any deficiency include inadequate documentation of the components of internal control; employees who lack the qualifications to fulfill their assigned functions, which include making the required GAAP accounting computations, accruals or estimates; preparing the company financial statements. (p. 64)

The above research study was conducted in order to find out the extent to which corporations adhered to accounting rules. Among other things, the

researchers found that the type and amount of knowledge to be possessed by managers varied. They did not identify a pattern. Therefore the basis on which the corporations hired managers was not ascribable to a specific paradigm. It means that managers of public corporations have varied types and levels of knowledge in different educational areas. Since the extent to which a manager should possess knowledge of financial statement in order to contribute positively to the corporation's net income remained unclear after incisive consideration of Fogarty, Graham and Schubert's (2007) research, assumptions such as have been presented began to be made.

#### *Income Driven Knowledge*

According to Widding (2005), a company can achieve competitive advantage if it has in its warchest the elements of product knowledge, market knowledge, organizational knowledge and finance knowledge” (p. 8). He explained that those elements are contributors, but all come under one group referred to as business knowledge.

He chose to view the manager as an entrepreneur who should do whatever it took to keep his ‘organization’ healthy in all ways. As an entrepreneur, the manager would not wait for the CFO or CEO to identify for him or her the steps necessary for the department to contribute effectively and efficiently to the corporation. Widding (2005) states, “Within "finance knowledge", there are three subcategories, namely, knowledge related to funding, internal finance management, and tax planning” (p. 10). If a company would do what Widding (2005) says and for the reason provided, then Lusardi and Mitchell (2007) must

be right in stating that “Kimball and Shumway (2006) report a large positive correlation between financial sophistication and portfolio choice” (p. 7). That sophistication consequently arises from an individual’s knowledge of the corporation’s products, markets, organizations and finance.

*Finance knowledge application at work.* Nelson, Gorman and Jacobson (2004), in their revenue recognition research discovered, “In sum, the consequences of improper revenue cognition in corporate financial statements can be catastrophic. Courts have found that corporate financial statements that improperly recognize revenue and fail to conform to GAAP constitute presumptive false ad misleading statements” (p. 294). This means that managers should keep accurate monetary records. Ample support for a firm-wide review of financial statements by department level managers thus exists and is supported by scholars.

Streeter’s (2007) research states, “surveys suggest that Americans lack basic financial knowledge about how to successfully manage debt” (p. 11). This apparent blanket statement sets the stage for an understanding of the population from which the corporations recruit their department managers. Streeter (2007) explains that due to lack of financial knowledge, people could be deliberately misled with false information, coercive advertisements and sales practices. If the United States corporations are hiring their managers from among a population made up of financially illiterate but generally educated individuals, then their corporations or departments led by such individuals may be misled deliberately or otherwise into making the wrong financial decisions thereby plunging their

corporations into a low or negative net income altogether. He concludes that such managers will be unable to apply finance knowledge at work because they do not possess it.

In a research study, Wallace's (1997) found a gap that represented managers' lack of grasp of bookkeeping entries, and asked, "Where are the debits and credits?" (p. 229). This means that accounting records do not reflect accurate display of entries. The situation warrants that department level managers must be equipped to complement the roles of internal auditors by pre-auditing their immediate organizational sub-domains, knowing that internal auditors will come behind them to review the records. Furthermore, external auditors will also come to do the same thing, which means that a self-installed first-layer audit will go a long way to contributing to the net income as well as making shareholders safe. This is possible through a concerted effort in learning the applicable financial topics and nuances necessary for the job tasks. This helps to make the managers relevant. It will also transform the organization into a learning organization with positive social or intellectual capital. This trend can be likened to building quality into a product before it reaches the quality control or quality assurance section. Wallace's (1997) assertion identifies a need to have knowledge that can be applied at work.

*Knowledge base identification.* Mandell and Klein (2007) conducted a research study in which young adults and up to company executives across the United States were surveyed on the subject of financial knowledge. They discovered, "Despite the importance of financial literacy, surveys demonstrate

that American youth and adults do not possess the basic knowledge needed to make good financial choices” (p. 8). This discovery, made during the middle of 2007, preceded Streeter’s (2007) finding, “surveys suggest that Americans lack basic financial knowledge about how to successfully manage debt” (p. 32). Both studies refer to surveys, but Mandell and Klein specify five successive national surveys that formed part of academic research. Mandell and Klein’s (2007) research in the summer of that year and Streeter’s (2007) in the fall of the same year appear to corroborate their findings with prior research. It is, therefore, highly probable that current level of financial knowledge among department level managers is not as high as it ought to be for the corporations to witness high net income. The intended investigation here would deploy its survey in order to elicit from individuals with experience as department level managers the role of financial knowledge at their level.

*Net income achievement.* Block and Hirt (2005) emphasize, “not all firms would choose to operate at a high degree of operating leverage” (p. 105). Therefore, a manager, irrespective of his or her relationship with finance and accounting, should be able to understand the organization’s financial direction. If, in particular, he or she understood how the company transacted on bonds, commercial papers, debt and equity, then he or she would successfully contribute to net income. If a bad handwriting is on the wall, he or she is also able to recognize it because of his or her level of understanding of financial statements. What the manager should be looking for is whatever moves the company along its intended financial direction. He or she can only look for what he or she knows

about. Unfortunately, according to Albrecht et al. (2005), “most businesspeople never see a real trial balance during their entire business career” (p. 102), which means that there may be a gap in organizations created by lack of essential knowledge of financial statements.

A research study conducted by Biosvert (2006) covered a general area of development managers. That study finds that an organization will achieve its objectives more readily if it paid some attention to the quality of its managers. That quality pointed to knowledge acquisition. The knowledge included financial dimension as a priority. Based on his research findings, Biosvert (2006) states, regarding the corporations, “They must adopt an organizational structure that encourages all managers to act as if they have an ownership stake in the company” (p. 35). This means that a company should take steps to facilitate an increase in their managers’ levels of knowledge, with more focus on the financial. This, according to Biosvert (2006), will lead the corporation to the attainment of its profit objectives. Whether or not the companies are doing it will be left to a targeted investigation. If companies do it, the extent to which they do will also be left to research. The former is enough to attract this research. However, in the process of reviewing scholarly materials, it was noticed that the answer to the former would bring any study close enough to answering the latter. This investigation increased its curiosity about the latter, and decided to pursue the answer to it.

*Relevance of managers’ knowledge.* In emphasizing intellectual capital, Biosvert (2006) found out other ways to engender the increase. He also



acknowledged the existence of efficient and inefficient managers. He recognized the existence of employee mindsets such as 'job' and 'career'. He also noted that some managers are efficient and others are not. On the basis of those realizations, the study paid attention to managers, their careers and knowledge, advising companies thus:

They must offer their most efficient managers interesting career opportunities within the organization. They must make developing an integrated management information system that produces management information that integrates the financial dimension a priority, which will be useful and used by die functions. (Biosvert, 2006)

In the era of mergers and acquisitions, for example, department level managers can lose their jobs before they know it because of inability to interpret developments. When a company take-over is finalized in such transactions, managers who survive must know three very important perspectives that emerge when firms consolidate after a takeover. Managers must understand the proprietary view of the organization where the parent company pays more attention to the amount of its ownership of the subsidiary. Parent perspective exists in which a controlling body expects the owner to add the values of both entities and allocate just a part of the owned entity to it for control purposes while the owner controls the rest. The last is the perspective of the accounting standard boards requiring owner to combine everything and allocate proportionately to the two sides (Shortridge and Smith, 2007). Department level managers who do not know this fact may wonder in frustration what has befallen their company if such managers happen to be on the acquired side of the table. That alone is enough reason for morale to be low with regard to net profit. Otherwise, there will be a

synergy arising from the cooperation of the merged companies. The above perspectives highlighted by Shortridge and Smith (2007) strengths on Widding's (2005) essential "elements of product knowledge, market knowledge, organizational knowledge, and finance knowledge" (p. 8).

Creating and maintaining uniformity will apparently help organizations to remain relevant. Such help is found in unified interpretation of objectives and expectations, as a research study found that if all managers could see the same picture, a coherent application of knowledge would result. Dennis (1999), in searching for corporate reality for organizations, identifies assigning of monitors, analyzing of relevance, creating of awareness, gauging of impact and gaining of acceptance as important factors in keeping everyone on the same page. These antecedents produce corporate move in one direction and ultimately result in the expected net income. Phillips, Luehlfing and Daily (2001) reveal, "controversy surrounded some companies because of their practice of recording revenue when they shipped inventory to dealers" (p. 46), which means that due diligence is required of all levels of management in recognizing and recording transactions. Department level management, however, has an unsung mediating function as the glue that holds the top and bottom of organization. The relevance of knowledge mandates that the said managers make sure revenue is properly recognized. Lack of necessary knowledge of financial statements may render management incompetent, thereby leading to violations that may affect their operatives below as well as their higher management.

*Knowledge for Shareholder Well-being*

Corporations are formed in order to create value for the individuals who formed them. Publicly traded companies have shareholders whose financial resources are used at the organizations' inception. The companies exist because people invest their personal finances with profit in mind. As a result of this, management of corporations has a duty to earn profits in order to distribute it to the investors, called shareholders. The distribution is called dividends. It must be mentioned that this applies only to companies that pay dividends. For those that pay, the only way to accomplish these objectives is by careful application of funds in the course of business. Good application will yield the desired results, and financial returns will be made to the investors. However, if results are unfavorable, the investors will send a strong message to management, some of which include selling the company, selling their shares (cashing out), investigating the company, voting out the management and any other steps that appeal to the shareholders. According to Block and Hirt (2005), "if there is one talent that is essential to the financial manager, it is the ability to plan ahead and to make necessary adjustments before actual events occur" (p. 91). 'Talent' contextually means someone who has what it takes to perform tasks with excellence. In this case, it takes the knowledge of financial statements to perform the said tasks.

It behooves management, based on Block and Hirt's (2005) revelation, to step up its level of awareness just for the purpose of satisfying the shareholders. That awareness can be achieved by way of strong grounding in the knowledge of finance and accounting principles. This will make for an understanding and easy

interpreting of financial statements. Camilluca, Hymowitz, Karnitschnig and Carew (2008) studied General Electric's bid to get rid of its appliances arm of business and commented, "shedding the appliances brand would be a symbolically significant move for the Fairfield, Conn., company" (p. 14). In the context of a corporation's net income (which is the core of the intended overall research here), Camilluca et al. (2008) laments General Electric's move because "GE entered the business in 1907 and boasts of milestones such as introducing the refrigerator, room air-conditioner and toaster oven" (p. 14). Incidentally, the economy is blamed by General Electric for such a decision as getting rid of its appliances arm of business.

For such a business that has existed for 101 years, it could have been said that bad economy was insufficient a reason to shut the doors. However, Camilluca et al. (2008) reveals that because the appliances brand gradually diminished to "a relatively small part of the company, a sale might not satisfy investors who are pressing Mr. Immelt to improve GE's sluggish performance" (p. 15). The study shows that no corporation is exempt from the realities of harsh economy. It reports that the least that a corporation (and its managers) can do is watch the financial statements while they are still being prepared. In essence, the departmental contributions, the quality of managers, the level of employee awareness, and an ability to interpret the financial statements must be in place. Further than that, the use of the word 'least' shows that Camilluca et al. (2008) expect more from the fuctionaries.

In relation to the intended research, seeing that “GE reported an unexpected 5.9% drop in first-quarter net income and lowered its earnings forecast for the year, only weeks after issuing sunnier projections,” (according to Camilluca et al.), in all probability, the managers have adequate financial knowledge to keep the company for 101 years. They also have enough financial knowledge to understand that an unexpected 5.9% drop that lowers earnings only weeks after issuing very positive projections is portentous enough to warrant a ‘stop-loss’ action. In the words of Camilluca et al., “The move prompted the biggest one-day selloff in GE shares in more than 20 years” (p. 14). This scenario adequately illuminates the bright side of financial knowledge. The main statements that show the overall health of the corporation are the balance sheet, statement of cash flows and income statement. Based on the above, department level managers must not only know about these documents, but also about the generally accepted accounting principles (GAAP) if they are to know when a unit should be expanded, contracted or shut down.

To buttress the argument regarding financial knowledge and its place within a corporation’s operations, Atkison (2008) took on the issue of supply chain, commenting, "It is important for supply chain executives to understand supply chain finance, and how the financing can improve the velocity of the supply chain” (p. 7). The study rationalized the prior attention given to supply chain management, as well as the population of that field with individuals who possess management knowledge, experience and education, and are adjudged by human resource officers as appropriate for the job. However, the absence of

finance discipline in the mix has continued to hurt supply chain, especially because the executives, as experienced as they might be, were found to be lacking in the area of finance. Therefore, their organizations suffered from the limitations placed on the bottom-line figures.

Addressing supply chain executives, Atkinson (2008) states, "They need to be aware of the impact that the introduction of financing at different stages of the supply chain can have on their operations" (p. 9). This appears to indicate that success in supply chain activities has to meet with financial knowledge at an intersection, and when that happens, there will be an increase in returns. If this interpretation is right, then, managers with financial knowledge will probably contribute positively to their organization's net income while managers with no financial knowledge will contribute not as much to their corporation's net income. This interpretation will be supported or debunked after the investigation activity.

Madura (2000) states, "degree of accounting exposure can be greatly affected by the accounting procedures it uses to translate when consolidating financial statement data" (p. 293), which means that talents must demonstrate knowledge of financial statements. They should be able to read, interpret and understand the contents thereof, and most especially be able to populate these three documents. Accounting and finance personnel are expectedly experts in the said area. Because department managers are not all from finance or accounting disciplines, this study would find out whether their non-accounting qualifications place them at a disadvantage, or whether they do not need to be exposed to

finance or accounting in order to contribute effectively to the corporation's net income.

The mention of United States corporations also necessitates an acknowledgement of the concepts of centralization and decentralization in which some United States corporations run their organizations respectively from the home office in the United states or by empowering their departments, divisions or subsidiaries to exercise autonomies at various levels. The research conducted by Sorenson and Kyle (2008) looks at the situation that arises when a department faces the task of reporting its finances to the home office. The department in reference could be in difficulty explaining the conversion of currency between their location and the home office. If the manager of such a department, division or subsidiary falls within the category of the Americans that do not have financial knowledge, the corporation's net income will either be inaccurately reported or false altogether. It may not be an intentional falsification, but one that arises from lack of appropriate knowledge. However, based on either ignorance or unethical disposition of management, auditors, generally accepted accounting principles, and financial accounting standards board rules will catch up with such management. According to a categorical statement from the research,

Keeping accounting records in multiple currencies has made it more difficult to understand and interpret the financial statements. For example, an increase in property, plant and equipment (PP&E) may mean that the company invested in more PP&E or it may mean that the company has a foreign subsidiary whose functional currency strengthened against the reporting currency. (Sorenson and Kyle, 2008)

A subsidiary manager can only surmount the above difficulty if he or she possesses substantive knowledge of financial statements. Tayles, Pike and Sofian

(2007) showed in their research findings that such knowledge should be based on an understanding of financial statements rather than ratios. In applying that research to Sorenson and Kyle's (2008), it must be confessed that when a manager has difficulty interpreting financial statements, a cheat-sheet of profitability ratios, liquidity ratios, leverage ratios and other necessary ratios can help the manager to report somewhat sensibly. However, when such a manager resides at the home office location and consequently not reporting financial results from an offshore location that has sovereignty (with its own national currency), the manager's dependence on ratios will give him or her out as hiding behind the mask of financial ignorance.

Sorenson and Kyle (2008) warned that a manager's difficulty in dealing with the relationship between home office currency and national currency of the off-shore division that he or she leads "may not seem like a significant issue, but goodwill arising from the acquisition of a foreign subsidiary may be a multibillion-dollar asset that will be translated at the end-of-period FX rate" (p. 11). If a corporation's net income is important to it, then the ability of its manager to preside effectively over financial reporting cannot be over-emphasized, be it in one or multiple currencies. Sorenson and Kyle's (2008) example with multibillion-dollar asset in a manager's division is enough for the manager to want to know enough for the purpose of carrying out his or her job. The emphasis of some corporations on intellectual capital refers subtly to the situation in Sorenson and Kyle's (2008) example.



## Examining Financial Statements

### *Department Level Manager's Extent*

Following on the heels of Koenig (2004) and Moore (2002), Fogarty, Graham and Schubert (2007) bemoan situations in which employees lack the qualifications to fulfill their assigned functions (p. 64), as such situations constitute a set-back to the organization. Such employees may be skilled in their job functions. However, whether or not being skilled is enough tooling for the department manager to help the company increase its bottom-line figures has not been verified. This is why an investigation is necessary to determine whether or not the manager needs knowledge of financial statements in addition. The extent of that knowledge is critical to the success of this investigation. A manager may produce positive results as his department's contribution to the corporation's overall net income. If such a manager has no formal education or experiential knowledge in financial statements, it will be unknown whether or not his or her departmental success could be greater if he or she had the knowledge of financial statements.

Roberts (2008) states that companies will soon have to respond "to regulatory pressure for forward-looking financial statements. The effect of this change will be felt not only in reporting but also in management practice, because it calls for an improvement in three areas: knowledge management, forecasting and optimization" (p. 8). This means that more work will go into the preparation and reporting of financial statements. He did not make this statement because he felt so. He saw a gaping hole in the systems adopted by corporations, and matched

those against expectations of rules and regulations. His findings are that corporations can only live by the numbers that proceed forth from the financial statements. If Roberts (2008) condemns the low state of financial statements knowledge, and statistically identifies a need for improvement in knowledge management, with particular attention to forward-looking financial statements, then there must be a correlation between the knowledge of financial statements and a corporation's net income.

The study reports that the skills needed for an improvement in the identified three areas are lacking in most finance departments. The author consequently states, "firms will need to hire commercially astute specialists to make up the shortfall" (p. 12). However, based on the study also presented (in this overall research) that many Americans lack financial knowledge, hiring commercially astute specialists will probably be more difficult than training the already employed but less knowledgeable. According to Roberts (2008), "Progress can be accelerated by hiring consultants to coach internal high-flyers and provide reusable models and tools. Evidence from early adopters of these methods shows there are considerable profitability and growth benefits to be gained" (p. 19). If evidence already exists that an effort to improve management practice, forecasting and optimization produced results, then a targeted effort in the area of financial statements across the organizational spectrum is likely to produce high net income.

Using a United States corporation as an example, Roberts (2008) revealed that the head of human resources of a United States corporation reassigned a

workforce planning manager as a full-time analyst in order to improve the way his team relates with numbers. According to the study, the newly reassigned manager only had minimal finance knowledge, but he was the only individual closest to numbers. His superior relied on the fact that the newly reassigned manager had ‘inquisitiveness’ as one of his strengths. Because of the ability to see a pattern or trend and become inquisitive, the head of human resources identifies him as someone who could be trained to bring the human resource department as close as possible to becoming an effective manipulator and user of financial information. According to Roberts (2008), the head of human resources does not expect his human resource personnel to become metrics expert, but to be curious and develop a culture of inquiry along financial lines. Going to such extents may produce the results intended by Roberts regarding hiring or training the high-flyers.

This is one of the reasons Fogarty et al.’s (2007) touch on auditor assessment of employees who lack qualifications in the area of financial statements addresses all managers irrespective of their educational or professional disciplines. Qualified Accounting and Finance managers may pass Fogarty’s test, but if they are unable to contribute to the firm’s net income, the auditor assessment of employees may classify them as lacking qualifications. This is because their ability to perform tasks for which they are employed would probably rank highest in the assessment. Auditors look at company-wide information. This means, therefore, that managers in departments other than

finance or accounting must also know about the three main financial statements, or be desirous of going to such extents.

Furthermore, a manager's knowledge of what an auditor would be looking for will enable such a manager to keep records that truly reflect the financial health of his or her department, as the departmental figures feed company-wide numbers. This is especially true as Zikmund's (2008) research reveals that "an auditor must develop the requisite skills to detect fraud and obtain sufficient knowledge of the rules and regulations in order to better understand what is required during an audit" (p. 8). For a manager, knowing what the auditor wants, based on Zikmund (2008), is half of the solution to any possible problems that may arise. The other half is keeping those records in ways that match the expectations of the auditor who is to come. The extent that the manager is willing to go reveals how much examining of financial statements he or she will do.

The research in reference reveals that the official statement on auditing standards, referred to as SAS 99, and titled Consideration of Fraud in a Financial Statement Audit, requires "an auditor to obtain 'reasonable' assurance that material fraud is not present" (p. 11) in the company's records. If, therefore, a department manager's numbers fed into the corporate books contained misinformation (whether intended or innocent), the statement on auditing standards (SAS99) will not dwell on the intentions or innocence. It will propel the auditor to into other appropriate rules that determine what happens to the corporation or to the manager. In a few words, Zikmund (2008) is teaching that the only way out of potential collisions is an intellectual capital concept that

focuses on kitting management with the right knowledge for enabling the corporation to fulfill its main obligation – taking care of the well-being of the shareholders. The corporation cannot achieve that objective without having knowledgeable individuals in place.

### *Recognizing Financial Knowledge Need*

According to Gray (2007), “Just 31% of employers felt responsible for their employees' level of personal finance knowledge. Many companies believed strongly that their staff would not expect them to play a role in this area” (p. 14). This means that those employees and managers within the organization need finance knowledge. This source acknowledges that both the corporation and the individual employee know about the existence of a knowledge gap. The company expects the employee to be finance savvy. The employee is more engrossed in working “the job,” making “the money” and living “the life.” Under these circumstances, the individuals do not have enough knowledge of their own finances.

Gray’s (2007) argument is that if the individual does not know enough of his or her own finance while working for the corporation, and is not curious enough to pursue such an understanding of it, then how much interest he or she will show in the corporation’s finances is left to guesswork. The research study shows that if an employee can explain his or her personal benefits and make portfolio choices, then that employee can understand the corporation’s finances and make informed decisions regarding the corporation’s portfolio in the areas of Financing and Investing, being two out of the three main activities of the

organization. Incidentally, many managers make good decisions in the area of Operating. Gray's (2007) research will be useful in getting managers to recognize the financial knowledge need and fulfilling the need.

One of the three financial statements that constitute the core of this overall research is the Cash Flow Statement. This particular statement shows three sections, Operating Activities, Financing Activities, and Investing Activities. Gray (2007) argues that the employee understands operating activities, being why he or she is employed. Those employed in the Finance and Investing areas of the company are expectedly knowledgeable in those areas. Gray's (2007) research finds an unfortunate situation – that of an encompassing lack of understanding of personal finance. The study bemoans the dismal absence of individuals on whom the corporations could rely for the purpose of moving them forward when succession times come. In the light of all above, a corporation's net income may be in jeopardy if such an organization has employees who fall within the category presented in Gray (2007).

In the light of the above scenario, an intensive review is necessary for the purpose of finding support for the possibility or otherwise of a corporation achieving high net income because its department level managers are knowledgeable in the area of finance.

Managerial responsibility in recognizing revenue is, therefore, impossible without the skill, knowledge or training in the appropriate accounting or finance topics. Fogarty, Graham and Schubert's (2007) reference to auditors is frightening enough, referring to court action, and point in the direction of knowledge of

financial statement as important to department managers. To buttress the point, Wells (2001) finds a bookkeeping employee, responsible for posting accounts receivable in a small business stealing some of the cash payments but nonetheless posts the transaction to the company's accounts-receivable detail (p. 32), which draws attention to the effects of false debits, omitted credits and forced balances. If a department level manager with knowledge of financial statements routinely examines that bookkeeper's journal entries, the disappearance of \$200,000 will not happen. This incident supports firm-wide review of financial statements by managers. Wells (2001) thus identifies and categorizes financial problems and risks in business systems into skimming, larceny and fraudulent disbursements (p. 33) and elaborately explains them. Financial problems thus identified support the recognition of a need for financial knowledge.

Skimming, larceny and fraudulent disbursements are among the prevalent slippages for which companies should develop or employ inspector type managers. Fraudulent disbursements, in particular, include increasing "soft" expenses (for example, consulting or advertising), employee home address matches a vendor's address, vendor address is a post office box or mail drop, vendor name consists of initials or vague business purpose (employees often use their own initials when setting up dummy companies; for example, "JTW Enterprises"), and excessive voided, missing or destroyed checks (Wells, 2001).

Shaw (2007) states, "Managers feel managed by whatever lands in their in-boxes and they get trapped on a treadmill of PowerPoint presentations. But all that is set to change as the latest financial reporting rules make forward-looking

statements mandatory” (p. 16). This highlights the same rules presented in Roberts (2008) and recognizes a need for financial knowledge. For these two researchers to harp on the imminent changes in financial reporting, a shift to rather targeted knowledge management or intellectual capital campaigns than general management development programs appears to exist. Shaw’s (2007) thesis centers around the finding that accounting practices are facing the need to change if organizations are to operate in line with rules set by the accounting standards board and any other relevant bodies. The study paid attention to knowledge management, econometric analysis, forecasting and optimization. These areas are essentially numerical.

Research study by Bovee, Kogan, Nelson, Srivastava and Vasarhelyi (2005) revealed that with the advent and pervasiveness of technology, especially with robust enterprise infrastructure, accounting software and applications markets have been gaining ground. Financial Reporting and Auditing Agent with Net Knowledge (FRAANK), an accounting package, is one of the results of that market growth. Its use simplifies process for management. However, knowledge of accounting principles and understanding of financial statements will enable a manager to comprehend the FRAANK process. Otherwise, a manager would be hiding his or her lack of knowledge behind the application. A manager in this situation is not required to be an auditor. Accounting software may be appropriate, but the manager’s ignorance will be exposed if that manager relies wholly on the software instead of acquiring personal knowledge of calculations, determinant ratios, double entry and interpretation of numbers. Knowing ahead,



therefore, what an auditor will look for when one comes enables the department level manager to carry out all the crosscheck that is necessary. In essence, the manager in this case will make the auditor's job easier than would a manager who lacks enough knowledge of the process to spot problems before they cause major disruption in operations. Financial knowledge need recognition will help an organization to nip this kind of reliance in the bud.

Highlighting the very dangerous potential outcome of systems failure, which can bring managers to their knees if they do not know basic finance and accounting principles is, therefore, important. Bovee et al. (2005) explain, "Using FRAANK, companies can quickly compare themselves to competitors in their industry sector or market across a variety of standard financial ratios" (p. 38). Managers who lack knowledge of principles can rely on this package with bitter consequences. Reliance on accounting packages without an understanding of principles and an ability to manually work the problems can lead to colossal failure when systems fail. Obversely, knowledge of principles, backed up by technology, will create greater value because end-users are not blindly following keypunches. Supporting need recognition and the facilitation of relevant knowledge, Carnes and Glerlasinski (2001) reveal, "After years of foot dragging there is hope that change may be coming to academic accounting programs" (p. 381). This refers to a legislation requiring 150 semester hours of university study in order to sit for the CPA examination. Developments such as this prompt training departments of corporations to re-engineer expectations. The result is an increase in the level of finance-specific enlightenment of their departmental

managers and ultimately an increase in net income. If a corporation does not recognize a need in this area, it may not act. Need recognition will be necessary for organizations that have a need. It must be stated, though, that need for financial knowledge cannot be assumed as a general rule.

### *Individual Breadth of Knowledge*

Management philosophy that borders on responsibility, touted over decades ago, includes a contribution by Perrow (1986), that manager qualities must change to match the increasing responsibility brought about by a changing marketplace (p. 59). Ordinarily, those qualities would have been simply associated with their job specializations or academic specialties. Incidentally, those qualities pertain to the job tasks and employer's needs. Those two items address organizational continuity as identified 13 years later by Cateora and Graham (1999). In the context of this investigation, the qualities that department level managers are expected to have in order to succeed in their respective organizations include an ability to read and understand, interpret and prepare financial statements. The contextual success pertained to the individual's ability to interpret, use, and populate financial statements.

In a research study by Burgess (2007), a categorical statement stated, "Increasing pressure on profitability means it is essential to maintain tight controls, and hence there is an increasing role for managers in general to take responsibility for various financial aspects in their units or departments" (p. 117). This pressure often leads to performance that is expectedly capable of producing high net income. Burgess found, in Scapens and Jayazeri (2003), the discussion of

the constant evolution of management accounting, showing that line managers are now required to have greater financial knowledge and information, and be much more accountable for their actions. That corroboration probably responds to findings by Streeter (2007) and Mandell and Klein (2007), and relies on the fact that the pressure for profitability in Burgess (2007) will live up to the requirement to have greater financial knowledge. An individual's breadth of financial knowledge is apparently a major necessity in preparing for accountability on the job.

Burgess (2007) reports DeSouza and Awazu's (2004) findings that managers require accurate knowledge in order to constantly control the operations and they need to have better financial skills in order to effectively use this information. These findings are similar to those of Streeter (2007) and Mandell and Klein (2007). Under an atmosphere of financial knowledge and skills, individuals can accurately forecast and plan revenues and costs for themselves or their corporations. The generalizing of Burgess (2007) almost conceals the hospitality industry leaning of the research study. This shows that the needs are widely applicable to business, and that financial considerations probably underscore the success of every business. All these pointers appear to strengthen the need for determining where and to what extent financial knowledge contributed to net income.

Davidson (2006) states, "Clearly, we must improve the financial knowledge of individuals and governments, beginning with the financial education of young adults. This training should begin in our high schools and be

emphasized in our colleges and universities” (p. 12). This means that the foundation for high quality department level managers must be laid at an early stage of their lives. The research studied a student investment program and found that it had real-world experience in the classroom for which Davidson (2006) interjects, “The Student Investment Program is a perfect example of hands-on, real-world experience in the classroom. However, it's just one component of financial literacy. And it's clear that Americans need this kind of financial knowledge” (p. 19). He explained that the young people in that classroom thereafter demonstrated increased curiosity, which had a potential to fuel their individual breadth of knowledge in that area.

Dennis (2006) reports on a midlevel management development program customized for Kaiser Permanente in which one of the directors participated. She explains, “The training covered five topics - strategy, communications, finance, knowledge management and change management” (p. 18). In order to highlight the substantive issue of knowledge (and in the finance area particularly), she reported the participating director as saying, “participating with other people from my company helped open my eyes to how the bigger decisions were being made” (Dennis, 2006). Because participants were drawn from the company’s management team, and being health industry organization, finance was probably one of the last things they would expect. If an eight-week program for people in an industry that is far removed from finance would include finance and knowledge management, then managers in corporations should face the reality of learning that their organization’s sheer existence depended on finance. This is

because finance is the only instrument that a corporation can use to satisfy shareholders who hold the equity that is found on the bottom right of the balance sheet.

### Management's Knowledge Scenario

#### *Manager's Value-Added*

Gray's (2007) research results necessitated a look at Lusardi and Mitchell (2007), as they seem to be interested in similar situations. Lusardi and Mitchell (2007) investigated "the causes and consequences of financial illiteracy to better understand why retirement planning is lacking and why so many households arrive close to retirement with little or no wealth" (p. 8). The study is focused on the parallel view of the individuals from these households who are entrusted with leading departments and divisions of large organizations. It reveals that many families do not understand the basic economic concepts needed for personal wealth creation. If households have mostly such people as have been described, then department managers, coming from such households cannot camouflage their ineptitude and ignorance in suits, ties, briefcases and laptops.

The research finds that "Such financial illiteracy is widespread: the young and older people in the United States and other countries appear woefully under-informed about basic financial concepts, with serious implications for saving, retirement planning, mortgages, and other decisions" (p. 16). This means that majority of the people who are leading corporations or their departments are in danger of being overtaken by the tide of rough economic waters (Lusardi and

Mitchell, 2007). For the purposes of validity, and in an effort to avoid bias, Lusardi and Mitchell (2007) stated, “Calvert, Campbell, and Sodini (2005) find that more financially sophisticated households are more likely to buy risky assets and invest more efficiently” (p. 9). This means that though within the populace, more individuals are financially illiterate than knowledgeable, the few that are knowledgeable in the area of finance will reap whatever benefits exist for investors. They further revealed “Kimball and Shumway (2006) report a large positive correlation between financial sophistication and portfolio choice” (p. 13), buttressing the point that knowledge of financial statements is likely to equip a manager for the purpose of making portfolio choices for his or her corporation. Such an ability represents value-added for the corporation.

Financial statements are central to the overall research because they are the documents that contain financial numbers with which to work or calculate the corporation’s state of affairs at any given time. Lastly, Lusardi and Mitchell (2007) stated, “Hilgert, Hogarth, and Beverly (2003) also document a positive link between financial knowledge and financial behavior” (p. 10). This finding succinctly circumscribes the correlation that the overall research seeks. It is, therefore, expected that results from the impending survey should either prove these prior research findings right or reveal other phenomena, especially as Lusardi and Mitchell (2007) state that “Other authors have also confirmed the positive association between knowledge and financial behavior” (p. 14).

Revenues and their recording are crucial. In essence, revenues come in form of sales, and the financial statements display the applicable entries, and all

these are facilitated by personnel, as underscored by Dennis's (1999) revelations. If revenue is properly recognized, documentation will reflect such revenue properly also, and the company will consequently be positively disposed. However, if lack of knowledge or fraud causes slippage at this processing point, the display will be misleading until auditors find it. This means that recording is very important, and must be done in accordance with applicable rules set by the controlling bodies. According to Steinberg (1996), the relevant information can be displayed with a statement of changes in net position, containing such items as net costs, appropriations used, non-exchange revenues...net position—beginning of the period and net position—end of the period (p. 7). Making accurate entries is the responsibility of all concerned employees. However, it is more applicable to those who add value to themselves and consequently to the company.

#### *Effect on Net Income*

A manager can add value to the company if he or she understands the inputs of financial statements. This knowledge enables such a manager to manage the firm (or department) better. Therefore, a department level manager's knowledge or lack thereof of financial statement expertise has a bearing on firm-wide net income. This can be noticed in that manager's interpretation and application of documents such as Cash Flow Statement, Balance Sheet and Income Statement. The bearing will be positive or negative, and has a capacity to affect net income accordingly. Albrecht, J. Stice, E. Stice and Swain (2005) warn, "unless someone is watching closely, the theft may go undetected" (p. 258). A manager who is knowledgeable in financial statements can interpret entries and

save the organization from pen robbery, which will in turn translate to an increase in the bottom-line figures. Demonstrating expertise allows a manager to carve a niche within and outside the organization, as that knowledge will be resounding even among competition because the final accounts, when published, will indicate that some expertise may have been demonstrated.

Dolvin and Templeton (2006) viewed Crenshaw's (2005) research survey conducted by Hewitt Associates LLC, regarding employees' abilities to make financial and investment decisions, and agreed that the workers so surveyed lacked financial knowledge. The survey also indicated that as a result, employers are increasingly offering education opportunities. Unfortunately, many employers still doubt the overall effectiveness of these programs particularly considering that many workers choose not to take advantage of this financial education. This means that solution to lack of financial knowledge is either not being found or is very slow. Net income is affected positively or adversely as a result.

According to Dolvin and Templeton (2006), "The results of this study suggest that financial education aids employees in choosing more appropriate asset allocation percentages, as well as more efficient portfolios" (p. 118). They believe that the improvements witnessed may have resulted from a deeper understanding of the intricacies of financial management, and from a reduction in the psychological biases typically exhibited by unsophisticated investors (Dolvin and Templeton, 2006).

Eilifsen and Messier (2000) review misstatement, which is a major problem in financial statements. Misstatements are cost factors. They can only



increase net cost. One of the purposes of management is to identify the force behind such misstatements, especially as most are believed to be errors of omission. However, due to widespread fraud in organizational accounting, a need to study that phenomenon with a view to arriving at a scientific conclusion seems to exist. Incidentally, archival evidence reveals, “smaller companies are likely to have a higher incidence of misstatement than larger companies because of weaker internal controls” (p. 34). This means that organizational size has a role to play. The problem lies in personnel. High level of commitment to organizational efficiency and knowledge are likely to help lessen the incidence of misstatement and other ills that adversely affect an organization’s net income.

Misstatements could also be errors. One occurrence may not raise a flag. However, two or more restatements of errors may occur and raise questions about ethics. Zhang and Pany (2008), in dealing with ethical issues within a corporation, state, “Restatements for accounting errors occur when material errors existing in financial statements are not detected by either internal controls or external auditors prior to the issuance of the financial statements” (p. 44). The authors chose to use an extreme case to highlight a colossal situation that can engulf a corporation. These authors are exhibiting their awareness of the power of controls (internal and external). These controls can only be exercised through a thorough application of the rules of double entry, due consideration of generally accepted accounting principles and rapt attention to financial accounting standards (rules). Based on Zhang and Pany (2008), these considerations are only possible if the

manager and his or her team have enough knowledge to do those things that are necessary, particularly for the purpose of protecting company net income.

Zikmund's (2008) earlier reference to restatement of accounting errors draws immediate attention to SAS99 (statement on auditing standards), and relates to the situation presented by Zhang and Pany (2008), to wit, there should be no material fraud in the entire process. If Zikmund (2008) and Zhang and Pany (2008) though not related in any way, are pointing out the same problem that can only be solved through knowledge of financial statements, then all officials that are connected with the process of entry, recording, reporting and presenting any or all aspects of a corporation's accounts are likely to need a high level of awareness. This level of awareness is probably only available through concerted efforts. Those efforts are also probably visible only in training programs, intellectual capital concepts, targeted seminars and streamlined finance and accounting training for all managers and their personnel regardless of their disciplines. From the point of view of Zikmund (2008), any appearance of repeated accounting errors means fraud (to auditors), and triggers an application of the rules set by accounting standards board. This implies that all well-meaning functionaries desire to shield the net income from erosions caused by either lack of knowledge or fraud.

#### *Responsibility and Accountability*

Hemraj's (2002) research study is easily a safeguard for department level managers who reveal what auditors want, defining and clarifying the need for audit. Other important knowledge nuggets are included so that department level

managers may stay ahead of the game. As earlier ascertained, not having a finance or public accounting training cannot absolve a department level manager when dangerous slippages manifest in organizational sub-domains manned by them. Furthermore, since auditors and courts of law are usually mentioned regarding recognizing revenue and recording journal activities, knowledge of financial statements appears not to be negotiable. This is also very crucial because of the need for companies to provide summary statements of their internal financial plan and projections of the statement of assets, liabilities and income (Hemraj, 2002, p. 58). This accountability and responsibility function appears to be related to the public display of final accounts. This is probably in line with the publishing of final accounts by public corporations in all conceivable media including the Internet.

Knowing these forms and versions of financial statements converts a departmental manager from just a paid worker to a knowledgeable social capital that may consequently become indispensable. Keeping the net income in focus enables the departmental manager to support the Chief Finance Officer (CFO), and successfully deliver it to the shareholders. A conscious sequence, according to Hemraj (2002), must be instituted with an ultimate goal of rewarding shareholders. This also means that when a CFO places the demand on department level managers to know financial statements very well, regardless of their departments, the organization will presumably be fulfilling its reason for existence. This presumption can only be confirmed through a scientific process.

Evidences show that domestic and international organizations rely on the same principles and pursue the same goals (net income) to fulfill their reasons for existence. Cateora and Graham (1999) highlight a good parallel with happenings in domestic and international business arena, drawing attention to organizational needs, situations and goals, stating that these goals can only be achieved by building on relevant knowledge (p. 436). Making that presentation from the point of view of international marketing shows that department level managers in departments other than finance and accounting are not excluded from pursuing organizational continuity (a shareholder dream), character (every investor's demand), coverage (every company's plan), control (every top management's nightmare), capital (every CFO's battleground), and cost (every department's ghost).

Further lessons from Cateora and Graham (1999) include that if the international marketer needs a clear understanding of market characteristics, having established operating policies before beginning the selection of channel middlemen, then department level managers must understand the characteristics of their departments' vis-à-vis corporate goals. Among other pre-selection considerations are the specification of financial and personnel commitments to the development of international distribution (Cateora and Graham, 1999). This situation applies to all organizations, and must be viewed from the angle of economic and social responsibility, which is not separated from accountability.

## Conclusion

From the foregoing, there appears to be a high demand for finance and accounting education for all cadres of management. Public corporations' final accounts are published even on the Internet. A search through those documents does not reveal the percentage contributions of their respective department managers towards the net income. It is not known whether top executives of those companies are unwilling to volunteer data on their managers' departmental contribution as a percentage of the company's bottom-line figures. Therefore, generic data that tie managers' needs for an accounting background to the bottom-line figures are hereinafter appended as tables. Though they provide a bird's eye view of the pertinent data, they can be better understood through a formal study.

A formal approach through the Delphi Method would use the consensus-building component of that design to elicit authoritative data that will be transferable, credible, dependable, and confirmable. These factors of trustworthiness would backup the data mined through the Delphi technique to support or defuse the apparent need or high demand for finance and accounting education for all cadres of management. Albrecht et al. (2005) confirm, "all businesses, large or small, periodically issue their financial statements so that users can make sound economic decisions" (p. 94). Management relies on those statements and is usually pleased when the books record high net income. However, more knowledgeable managers are needed, based on the foregoing. Unfortunately, incidents such as ignorant slippages and creative robbery with the

pen occur due to the absence of such knowledge and eagle eye within the rank and file of departmental managers, as also pointed out in some researches reported above.

The absence of finance-specific knowledgeable managers prompts Wallace (1997) to ask, “Where are the debits and credits?” (p. 229). The anomaly identified by her showed that individuals paid more attention to FASB’s rules regarding reporting instead of looking to journal entries. This is because they want to only satisfy Financial Accounting Standards Board (FASB), an organization in the United States that is in a position of authority to set standards guiding the reporting of financial and accounting records within the country. Wallace’s reference to it shows that she insists that what the readers see is what they get. This means that presenting something that makes sense is better than creating a document that mechanically satisfies rules of the accounting standards board, and thereby faking a good report. She wants every department level manager to know where the debits and credits are. Otherwise, cataclysmic outcome will become the order of the day. Managers must be made to look into accounting journals and answer Wallace’s (1997) question, “Where are the debits and credits?” (p. 229), which, in addition to her comment and the charge she placed on the department level manager, point to the need for managers to display high ethical level at work.

In summary, scholars have put out results of their findings in multiple directions that relate to the subject of these reviews. Some of the assertions and direct reports from the reviewed scholars may create a temptation to draw

conclusions, but because they did not deal with the niche carved by the intended investigation, they will only be used as stepping-stones to guide the pinpoint investigation. It is clear, though, that knowledge is generally important. Based on the reviewed scholars, it makes perfect sense to employ and retain managers who possess pertinent knowledge of finance, whether they are finance specialists or generalists in management, arts or the sciences. The manager's understanding of financial and accounting rules and regulations has been suggested. His or her ability to conscientiously examine financial statements has been recommended. Careful appreciation of his or her level of understanding has also been supported by scholarly literature. It becomes the responsibility of the intended investigation, therefore, to find out whether or not, and to what extent, a manager who possesses and applies the knowledge of financial statements contributes to his or her corporation's net income.

## CHAPTER 3. METHODOLOGY

### Overview

The intended research method for this study was the Delphi Method. The Delphi method enabled this research to find answers to the questions posed by the study, and to consequently identify the relationship between a department level manager's knowledge of financial statements and the corporation's net income.

A Delphi Method allowed members of an expert panel to air their views, in this case, through a survey questionnaire. Panel members were not exposed to the public because of privacy issues. Those experts were protected from external influences that could be overpowering. They took part in the study by accepting an invitation contained in the letter of consent.

### Purpose

The purpose of using the above-introduced Delphi research design technique for this quantitative study was because it was important to measure expert consensus on this subject. Furthermore, the response of each participant was not just a number, but also weighty enough. This choice was also underscored by the fact that flooding the survey with a very large number of participants would only increase the figures that were processed, and might consequently dilute the true representation of experts. Furthermore, the chosen technique saved this investigation effort from the possibilities of fielding individual participants in research survey with no commitment to the topic of interest. This investigation thus desired to find out whether the manager's goal



orientation with members of his or her department based on his or her level of knowledge could be a predictor of the department's success or failure, which may contribute to their corporation's overall book value. With its few participants who have theoretical exposure and hands-on experience on their jobs, the Delphi method helped this research to achieve the desired purpose.

### Research Questions and Hypotheses

This investigation incorporated diverse concerns in its bid to inquire into the said relationship between a department level manager's knowledge of financial statements and the corporation's net income.

To effectively answer the pertinent research question, diverse thoughts that were best presented and viewed in the form of management, investigative, and measurement questions, as they constituted integral part of the following research questions:

1. Management question – What percentage of the overall net income contributed by a department level manager indicates his or her knowledge of financial statements?
2. Investigative and measurement question – To what extent can a manager's knowledge of financial statements quantifiably relate to high or low corporate net income and influence the corporation's achievement of its overall objective of attending to the well-being of the shareholders?

In an effort to answer the management, investigative and measurement questions, other thoughts emerged that had consequences on the process of

investigation. Those thoughts were better comprehended through a look at the hypotheses.

### *Hypotheses*

Null

H<sub>0</sub><sup>1</sup> There would be no significant relationship between financial knowledge scores and income performance ( $p < .05$ )

Alternate

H<sup>1</sup> There would be a significant relationship between financial knowledge scores and income performance ( $p < .05$ )

Null

H<sub>0</sub><sup>2</sup> There would be no significant interaction between financial knowledge category (Low, Medium, and High) and income categories (Growth, No change, and Decline),  $p < .05$

Alternate

H<sup>2</sup> There would be a significant interaction between financial knowledge category (Low, Medium, and High) and income categories (Growth, No change, and Decline),  $p < .05$

### Research Design

This study was based on the use of a 10-member expert panel. In order to ensure validity, and to make provision for unforeseen panel attrition (that may affect validity of research), a panel of 12 experts will submit their responses to questionnaire, instead of a panel of 10. A two-member buffer will shield the study

from any emergencies that could cause attrition. Responses from panel members would be sorted, collated, and made available on the research site so the members could see each other's responses, review them and seize the opportunity to change their own views in the second round of answering the same questions. The iteration would enter a third round if the second round submissions still indicated significant divergence in their common views. If, however, their views became generally uniform, there would not be a need for third iteration. This process will allow top executives who constitute the expert panel to contribute to an understanding of the relationship under consideration. Data analysis would rely on Statistical Package for the Social Sciences (SPSS). The study would look into two key components, using quantitative survey instrument.

Consequent upon the above approach, the researcher would be able to interpret the behaviors of pertinent variables. Factorial design would be implemented because this investigation had more than one variable. Rather than manipulate those variables, this study intended to identify the true phenomena, and determine why and to what extent they existed. Because of the need to avoid bias, the study would be open to only adjustments that would allow it to maintain its objectivity. Robson (2002) stated, "certainly, someone attempting to carry out a form of inquiry into the situation in which they themselves are working or living may find that the change aspects become virtually impossible to separate out from the inquiry itself" (p. 7). This means that bias must be removed from the research process if it is to be deemed valid. A researcher's involvement in the process that is being investigated leaves room for subjectivity. Personal bias can get in the way

and derail the research. If such a thing happened, the research would no longer be valid. For that reason, researcher would complete the investigation as an outsider.

### Sample

The target population of the expert panel for this Delphi study consisted of individuals who worked, or still work as managers in public corporations. They are responsible for the day-to-day operations of the departments to which they are assigned by their employers. The sample frame covered executives from the different fields of Business such as Management, Finance, Leadership, Marketing, Administration Purchasing, Public Relations, Human Resources, Accounting and any other branches of the discipline. Delphi study panelists were selected based on specific criteria that reflect their involvement in public corporation management and also at a departmental level.

Statistical theory guided the process in which case this research selected participants from a population that was finite. Observational errors would be based on the content of participant responses, since there would be no human contact. Refining the procedure would be limited to the multiple iterations that the Delphi method engendered. Relationships arising from the results of the first iterations will be studied. Descriptive statistics would make for easy reading and comprehension of reported findings because this research used graphic display and tables, as well as single numbers that would aid clear understanding of the reports.

The sampling criteria were as follows:

1. A panelist must have at least five years of professional engagement at a department manager level or above.
2. Each member of the expert panel must possess, at least, a bachelor degree in one or more branches of Business.
3. Individuals without a formal university degree must possess certifications, licenses or fellowships equal to, or higher than a Bachelor degree in any of the branches of Business.
4. Any holder of degree in a field other than Business must function in job positions that require regular presentations to executive management while managing a department.
5. Members of the expert panel must come from publicly quoted corporations.

The Delphi Technique can be applied to research work in every area of business and industry. It is a group decision-making process that employs creative exploration of information (Robson, 2002). After deploying a Delphi research technique, the process in hindsight can characteristically exhibit tendencies whose reporting could sound as follows:

The second-round distribution showed that the feedback had had an effect, since a number of persons shifted their positions away from the true mean. By the third round, the distribution was once again similar to what it had been in the first round, although the distribution was shifted slightly to the lower end of the scale and remained that way permanently, showing residual effects of the gerrymandering. (Linstone and Turoff, 2002)

Individuals who worked as department level managers in public corporations were accessed from databases and invited to participate in the research survey. The investigator of this topic sent Participant Recruitment Flyer by e-mails to such individuals. Those who responded with interest in participating received the Consent Form. They were directed to Survey Monkey web site where they completed the Survey Questionnaire (See Appendices D and E).

### Setting

This study was conducted using the Internet. Based on the arrangement, there was be no office building, school building, or organizational atmosphere to which the study was subjected. Participants were not seen. They did not use paper and pencil. They did not attend any meetings. Their contact with the research and researcher was in the cyberspace. This research setting included a secure web site where 12 participants spent about 20 minutes. 240 invitations were sent out with the hope of receiving at least 12 indications of interest from individuals who meet the specifications. When up to 12 interested and qualified prospects registered on the Survey Monkey web site and complete the survey, the first iteration would officially have taken place, and those 12 participants formally became the research subjects. They returned to the site to repeat the process so as to reveal to the researcher whether or not there was consensus.

### Instrumentation / Measures

There was no need for a third round. The report was presented based on two rounds. The actual report was based on data processed and findings received.

The Delphi Technique, with its multiple iterations, engendered group decision-making with the decision makers (in the case of this study) operating from diverse locations. The consensus was not achieved because of their opinions. It was achieved through the convergence of their (quantitatively determined) objective responses to the survey questions. The answers that they provided were, therefore, based on objective information that existed outside of their subjective opinions. Their interaction was asynchronous in modality. This panel is an Internet alternative to a centralized panel that would ordinarily meet at a physical address. The Delphi Method allowed selected participating experts to jointly express an understanding of the substantive issue. It was an efficient tool for projecting patterns, directions or sequences of phenomena studied, especially because the participants' common or divergent views could not be controlled from outside the panel.

The research panel undertook two iterations in responding to questionnaires. It was expected that three iterations would produce consensus among panelists. However, the panel members were provided with a summary of their responses to the first iteration before they had the opportunity to answer the questions a second time. This enabled them to change their response (if they want to do so) based on the members' respective increasing clarity and the move towards consensus. The questionnaires were be presented to the expert panel (See Appendices D and E). Responses were tallied and made available to them at the site for the second iteration. Consensus was noticed after the second round, which made a third

round unnecessary. Communication between researcher and the expert panel was Internet-driven. Therefore, e-mail was used for the purposes of prompt response.

The Delphi Method was a tool for exploring the possibility or otherwise of a consensus among selected experts. This provided added validity to the investigation. Furthermore, department level managers serving on the expert panel successfully explored to what extent a department level manager's knowledge of financial statements contributed to a corporation's net income because they faced such situation on their jobs.

#### Data Collection

The primary data collection instrument of this project was a multi-item survey questionnaire designed to take about 20 minutes to complete. The survey was delivered to the participants via Survey Monkey—an industry standard web-based survey system. Respondents answered questions that pertain to the aspects of a department level manager's professional, educational, corporate and operational input into the corporation's goals.

Conclusions were based on facts, figures and analysis that were scientific. Therefore, less scrutiny was needed to validate the research. Furthermore, internal validity was achieved by ensuring accuracy of the results in plausibly demonstrating the relationship pursued by this topic (Robson, 2002). As the internal validity machinery, the study aimed at ascertaining the existence or otherwise of a relationship between the net income of a corporation and the level of knowledge of financial statements possessed by its managers. These two self-



checks brought about a research that could be applied across industry because of its internal accuracy and its potential to be generalizable.

This scientific research (fixed) was direct and did not need much to show how valid it was. Output of charts, graphs or tables clearly showed the needed state of correlation, and made conclusions sensible. The overall conclusion was drawn from the quantitative results. Pearson product moment correlation was also deployed to confirm the correlation. The co-efficient of the determination output from the Pearson guided the step-wise procedure. With that, the study developed the pattern for a strong prediction of potential effects on a corporation's net income with managers who possessed the knowledge of financial statements as well as with those who did not possess that knowledge.

#### Treatment / Intervention

The evaluation of a research study involves stringent steps in determining the criteria. While the components have already been named as valid evaluation bases, they may be viewed in the context of steps in carrying out a needs assessment, since they set the tone for evaluation at both micro and macro levels (Robson, 2002). They include, and not limited to, identification of possible objectives, deciding on the most crucial ones, assessing what is currently available on the subject to meet those important objectives and selecting final set of objectives and the steps to accomplish them. These cannot be over-emphasized. Every possible step was taken to eliminate bias at every turn. Gunkel (2007), in his research on information ethics reacted, "as we increasingly rely upon machine

intelligence with reduced human supervision, we will need to be able to count on a certain level of ethical behavior from them” (p. 170), which means that research should not rely solely on technology as things can go wrong and cause participants inconvenience. Based on his finding, he reported that technology should be supervised in some organized fashion in order to ensure that even research participants can be assured that their participation will not cause any damage to them. This study intended to ensure, therefore, that the third-party survey web service understood its position to protect the personal information of participants and to ensure that no virus should migrate to participant computer system as a result of their voluntary contact with the survey web site.

### Data Analysis

Pearson’s Correlation test was run in order to find where the two variables met. Within the limits of statistical operations, data gathering questionnaire focused on how important net income was to the executives, how important financial statements were to them and whether a CEO’s knowledge of financial statements mattered to the executives. Some data pertained to each participant’s official functions that relate to finance and accounting. Participants were requested to provide information regarding which departments they perceived as needing managers with degrees in the finance or accounting related fields. Categorization was used to determine the weights of their answers. Questions used in gathering data strategically revolved around the foregoing.

The latest version of Statistical Package for the Social Sciences (SPSS) served as the research analysis tool. Under these circumstances, surveying executives who were unknown to the researcher greatly contributed to the successful elimination of bias, and provided this research with usable results. This is also why the research was open only to adjustments that strengthen its scientific objective. One of the best ways to do a good reporting job was to work as an outsider. Analysis of the findings was therefore done purely as an outsider. The research topic is devoid of self-conflicting challenges or bias. This conclusion makes researcher to believe also that it was conducted in the best possible atmosphere and environment - cyberspace.

#### Validity and Reliability

Trustworthiness in fixed design is of paramount importance to this study. The study sought to accomplish trustworthiness through adherence to Robson's (2002) statement, "This is the stability or consistency with which we measure something" (p. 101). This means that as long as the variables and all measurable components are scientifically treated, the study will achieve trustworthiness. In other words, it will be valid and reliable. It was expected that the usability of research data in this work would depend on factors that might include, but not limited to how much education a manager had, how much knowledge of financial statements that a manager possessed and how much of it (if any) that such a manager applied to his or her department's operations for the purpose of contributing to the corporation's net income. These were reflected in some questions that enable researcher to conduct an assessment of managers. Those

questions constituted part of the process of answering the research question on which this study was based. Other parts thereof were treated while interpreting data gathered through the questionnaire.

### Ethical Considerations

There were no special circumstances related to this study. However, due recognition was given to ethics in the process of this study. Treatment had been given, for example, to the subject of ENRON, which bordered on ethical considerations and accounting rules. A literature review by Beurden and Gosling (2008) paid closed attention to the relationship between corporate social performance and financial performance. In that ethics-studded review they explained that their purpose was to “investigate several factors that influence the relationship between corporate social performance and corporate financial performance in order to get a more in-depth understanding of this relationship” (p. 12). They found most of the available literature focusing on the way corporate officers handle official business. One of their closures emerged when they noticed and reported, “firms that act in socially irresponsible or illegal way have decreasing shareholder wealth. This implies that acting socially responsible and law abiding is necessary to increase shareholders wealth” (p. 19). Similarity exists between the thrust of Beurden and Gosling’s (2008) literature review and the investigation intended here. The difference was that they focused on ethical considerations while the intended study here had its focus on the relationship between the two variables that were identified in the dissertation topic. The

intended investigation here looked for the level of managers' knowledge of financial statements as a factor in their corporation's bottom-line figures.

A careful consideration of the basis of Beurden and Gosling's (2008) literature review draws attention to the need to keep ethics in view regarding the interpretation of a manager's quantifiable contribution to the corporation's net income. This can be done without changing the focus of the intended investigation. Further than that, ethical considerations must guide the treatment given to the participants in this investigation. This is especially because Robson's (2002) warning, "Experimental research with people poses ethical problems in sharp forms" (p. 66) and his subsequent explanations reveal that research process can become problematic if the participants are not treated humanely. His direction lends the much-needed weight to this investigation by confirming, "in the traditional positivist view, science and scientists are 'value free', facts and values are fundamentally different, and scientific research which is based on facts arising from empirical data has no role in making value judgments" (Robson, 2002, p. 71). Historical view in treating participants well is supported by May and Sharratt (1994) warning, "Men lose their high aspirations as they lose their intellectual tastes, because they have not time or opportunity to indulge in them" (p. 18), which means that the treatment given to human beings can hinder their effectiveness in times of action. Participants were, therefore, treated with respect and kindness. This search for correlation between a manager's knowledge of financial statement and the corporation's net income, being scientific was based

on facts arising from empirical data. In this way, value judgments were not made, but descriptive statistics revealed the true nature of the phenomenon.

Material benefits did not arise in this study. Risks were also non-existent. The reason is because no individual or corporate body sponsored this study. No remunerations were paid to participants. No human touch or contact was associated with the investigation process, as participants accessed the questionnaire at their own time and from any physical location that they chose. Consequently, no participant was hurt in any way. The participants were not exposed to any other individuals in the course of completing the online questionnaire, which was the closest that they came to both the researcher and other participants.

## CHAPTER 4. RESULTS

### Introduction

The purpose of this chapter is to report and present data pertaining to the relationship between two variables – department level managers’ knowledge of financial statements and their corporations’ net income. The conceptual framework for this study was based on the joint work of Brealey, Myeres and Marcus (2003), further strengthened by Burgess (2007), “Increasing pressure on profitability means it is essential to maintain tight controls, and hence there is an increasing role for managers in general to take responsibility for various financial aspects in their units or departments” (p. 117).

Out of a database pool of 1100 executives, 59 participants accepted the invitation. Survey questionnaire was sent to all 59 subjects, and 15 participants emerged as the expert panel. From amongst the 15 participants, 10 experts were required, but 12 individuals were selected as the expert panel so that if any member of panel exercised his or her right of withdrawal from the panel without consequences, the investigation would still have the required 10 experts. The criteria for selecting 12 expert panel finalists were based on their meeting the pre-described requirement of college education. With the degrees in diverse academic disciplines, they occupied department level management positions prior to, or at the time of this investigation. Their university education led to their acquisition of

bachelor, master and doctorate degrees in diverse fields, including public administration, medicine and law.

### Data Analysis

Participants expressed their views in the first and second rounds of survey required in a Delphi technique. The two rounds provided the study with an opportunity to identify the level of consensus amongst the participants. Seven panelists performed job functions that required the use and understanding of financial statements. Six panelists used financial statements frequently while four panelists only made occasional reference to financial statements.

Table 2. Frequency counts for longevity in working with financial statements

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2	1	8.3	8.3
	5	3	25.0	33.3
	8	1	8.3	41.7
	10	1	8.3	50.0
	13	1	8.3	58.3
	19	1	8.3	66.7
	20	2	16.7	83.3
	25	2	16.7	100.0
Total	12		100.0	100.0

Above table shows that 50% of the participants had 10 years of more of experience. Another 33% had over 20 years of experience.



Table 3. Frequency counts for expert panelists' level of education in finance

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 2	2	16.7	16.7	16.7
5	3	25.0	25.0	41.7
7	2	16.7	16.7	58.3
8	4	33.3	33.3	91.7
10	1	8.3	8.3	100.0
Total	12	100.0	100.0	

Above table enabled the developing of the values for each degree—2 year degree = 2, BS degree = 5.

In the first round, four out of the twelve panelists chose stockholders as the company's reason for paying attention to financial statements. The rest were almost evenly spread over other considerations. However, in the second round, half of the panelists identified company stockholders as the reason for company attention to financial statements. The remaining half was evenly spread over the other considerations.

Based on a three-level ranking, on the top ranking level, six respondents assigned 54.5% importance respectively to Cash Flow Statement; 36.4% ranked Balance Sheet as being most important; and 18.2% assigned importance to Income Statement. On the second ranking level, 63% ranked Income Statement as being most important; 27.3% assigned importance to Balance Sheet; and 9.1%

assigned importance to Cash Flow Statement. On the third and lowest ranking level, 36.4% ranked Balance Sheet and Cash Flow Statement as being equally the most important while 18.2% assigned importance to Income Statement.

Table 4. First and second round Delphi panel data ranking of the corporation's reason for the importance of financial statement

	First Round	Response Count	Second Round	Response Count
Executive compensation	10%	1	10%	1
Department-level manger compensation	20%	2	10%	1
Rank and file employee compensation	0%	0	20%	2
Company stockholders	40%	4	50%	5
Reinvestment in the company (R & D)	10%	1	10%	1

Table 5. Delphi panelist ranking data of the level of importance of each of the three financial statements

	Top ranked	Second	Third	Response Count
Balance Sheet	36.4% (4)	27.3% (3)	36.4% (4)	11
Income Statement	18.2% (2)	63.6% (7)	18.2% (2)	11
Cash Flow Statement	54.5% (6)	9.1% (1)	36.4% (4)	11

In the first and second rounds all panelists agree that it is important for a Chief Executive Officer to fully understand financial statements. They also all believe that a Chief Executive Officer's knowledge of financial statements is necessary no matter the nature of the business.

Table 6. Perceived understanding of financial statements by upper-level management

	Round One	Round One	Round Two	Round Two
	Response Percent	Response Count	Response Percent	Response Count
YES	90%	10	70%	7
NO	10%	1	10%	1
UNSURE	0.0%	0	30%	3

In the first round, all respondents but 10% indicated that members of their upper-level management understood financial statements. In the second round, 30% were unsure. 10% indicated that upper-level management did not understand financial statements. 70% indicated that upper-level management understood financial statements.

Table 7. Delphi panel data on importance of formal degree in finance or accounting for department level managers.

	Extreme	Very	Unsure	Somewhat	Unimportant	Response Count
Finance and Accounting	100% (10)	0.00% (0)	0.00% (0)	0.00% (0)	0.0% (0)	10
Corporate And Investor Relations	50.0% (5)	40.0% (4)	0.00% (0)	0.0% (0)	10.0% (1)	10
Purchasing	20.0% (2)	40% (4)	10.0% (1)	10.0% (1)	20% (2)	10

Table 8. Delphi panel data on importance of strong experiential background in finance or accounting for department level managers

	Extremely	Very	Unsure	Somewhat	Unimportant	Response
						Count
Production and Engineering	20.0% (2)	20.0% (2)	0.0% (0)	50.0% (5)	10.0% (1)	10
Community Relations	0.0% (0)	10.0% (1)	10.0% (1)	30.0% (3)	50.0% (5)	10
Administration	10.0% (1)	50.0% (5)	10.0% (1)	30.0% (3)	0.0% (0)	10
Personnel And Human Relations	20.0% (2)	10.0% (1)	20.0% (2)	30.0% (3)	20.0% (2)	10
Marketing and Public Relations	10.0% (1)	40.0% (4)	10.0% (1)	40.0% (4)	0.0% (0)	10
Finance And Accounting	80.0% (8)	10.0% (1)	0.0% (0)	10.0% (1)	0.0% (0)	10
Corporate And Investor Relations	60.0% (6)	30.0% (3)	0.0% (0)	0.0% (0)	10.0% (1)	10
Purchasing	20.0% (2)	40.0% (4)	0.0% (0)	40.0% (4)	0.0% (0)	10
Sales	0.0% (0)	50.0% (5)	0.0% (0)	50.0% (5)	0.0% (0)	10
International Relations	0.0% (0)	20.0% (2)	30.0% (3)	40.0% (4)	10.0% (1)	10

All panelists agreed that it was extremely important for managers in Finance and Accounting departments to have formal degrees in Finance or Accounting. Half of the panelists stated that it was extremely important for managers in Corporate and Investor Relations to have formal degrees in Finance or Accounting. The other half of the panelists expressed the need for managers in the remaining eight departments to have formal degrees in Finance or Accounting.

Eight panelists expected managers to have extremely high experiential background in Finance or Accounting if they worked in Finance, Accounting. Six of the panelists expected the same extremely high experiential background for managers working in Corporate and Investor Relations departments. Between one and five panelists respondents expect experiential background in finance of managers in the rest of the departments.

Table 9. Round 1 data on importance of reading, inspecting and understanding financial statements by department level managers

	Extremely	Very	Unsure	Somewhat	Unimportant	Response
						Count
Finance and Accounting	90.0% (9)	0.0% (0)	0.0% (0)	10.0% (1)	0.0% (0)	10
Corporate and Investor Relations	70.0% (7)	10.0% (1)	0.0% (0)	20.0% (2)	0.0% (0)	10

In the first round, nine panelists regarded it as extremely important for managers in Finance and Accounting departments to read, inspect or try to understand the corporation's financial statements. Seven panelists ascribe such extreme importance for managers in Corporate and Investor Relations departments.

On the contrary, most of the panelists regarded it as somewhat important for managers in all departments to read, inspect or try to understand financial statements, except for Community Relations, and International Relations departments where they did not see the need for such an effort. In the second round, the same trend was noticed with one digit increase for Finance and Accounting as well as Corporate and Investor Relations departments. This shift was caused by the change of position by some of the panelists who earlier paid attention to other departments.

Table 10. Round 2 data on importance of reading, inspecting and understanding financial statements by department level managers

	Extremely	Very	Unsure	Somewhat	Unimportant	Response					
						Count					
Finance And Accounting	90.9%	(10)	0.0%	(0)	9.1%	(1)	0.0%	(0)	0.0%	(0)	11
Corporate and Investor Relations	81.8%	(9)	0.0%	(0)	0.0%	(0)	18.2%	(2)	0.0%	(0)	11

The behavior of a corporation's net income did not change in response to the level of financial knowledge possessed by department level managers. In spite of the level of knowledge possessed by department level managers of the corporations, four expert panelists reported that their corporations' last reported net income was lower than the prior year's reported net income. Five expert panelists reported that the net income did not change from the prior year. Three expert panelists reported that net income was higher in the last reported financial year than in the prior year.

Table 11. Expert panel financial training score index with data on criteria

		Response Percent	Response Count
MBA in Finance Or Accounting	High	66.7%	2
B.S./B.A. in Finance Or Accounting	High	33.3%	1

Managers with finance or accounting education were in the minority. Their contribution to the expert panel deliberations indicated no correlation between their finance or accounting training and the net income achieved by their respective corporations.

Table 12. Correlation of the intersection of corporation net income and department level managers' financial knowledge, N = 12, (p value < .05)

		How many Years have You worked with financial statements	How many years of education do you have in the finance	Company's net income for year compared to last year
How many years Have you worked With financial Statements	Pearson Correlation Sig. (2-tailed) N	1   12	.466 .127 12	.454 .139 12
How many years Of education do You have in the Finance	Pearson Correlation Sig. (2-tailed) N	.466 .127 12	1  12	-.173 .592 12
Company's net Income for year Compared to Last year	Pearson Correlation Sig. (2-tailed) N	.454 .139 12	-.173 .592 12	1  12

There were no significant correlations among the variables studied.

#### *Test of Hypothesis One*

The first null hypothesis stated that there would be no significant relationship between financial knowledge scores and income performance ( $p < .05$ ). The relationship between those two variables was not significant. There were no significant correlations at the .05 cut-off level.

All 12 expert panelists reported on their respective education levels side by side their respective levels of experience working with financial statements.



Finding indicated no significant relationship between financial knowledge scores and income performance. This investigation, therefore, fails to reject the hypothesis because financial knowledge scores do not translate to corporation income performance.

Table 13. Frequency counts for expert panelists' comparison of financial performance of their corporations over two consecutive years

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Lower	4	33.3	33.3	33.3
	Unchanged	5	41.7	41.7	75.0
	Higher	3	25.0	25.0	100.0
	Total	12	100.0	100.0	

#### *Test of Hypothesis Two*

The second null hypothesis stated that there would be no significant interaction between financial knowledge category (Low, Medium, and High) and income categories (Growth, No change, and Decline),  $p < .05$ . The level of combined financial knowledge of department level managers is low. Only three panelists reported increased company net income over the year before.

The other seven panelists reported either a stagnation or decrease in net income over the same period. This investigation failed to reject the hypothesis.

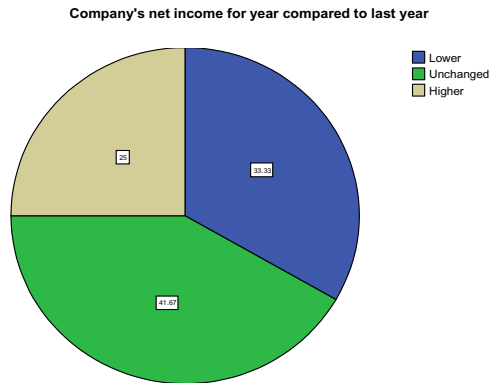
Table 14. Financial knowledge categories of expert panel members on their jobs

High	Medium	Low
MBA (3)	JD (1)	MPA (1)
Graduate Finance Courses (1)	MD (1)	Skipper
B.S./B.A. Finance (1)	BS (Marketing (1)	

Table 15. Department level manager specific educational disciplines representative of proximity to, or distance from financial knowledge

S/No	Qualification Discipline	S/No	Qualification Discipline
1.	Graduate Finance Courses	6.	MBA in Economics/Finance
2.	JD - doctor of jurisprudence	7.	MBA
3.	B.S. Marketing	8.	MBA
4.	Master's Public Administration	9.	B.A./B.S. in Finance
5.	M.D.	10.	--

Figure 1. Pie chart representation of expert panelists' statistical description of net income behavior in spite of managers' financial knowledge or lack of it



The Pearson's Correlation statistic was used to assess the correlation between a department level managers' financial knowledge and a corporation's net income. Within the limits of statistical operations, data gathering questionnaire focused on how important net income was to the executives, how important financial statements were to them, and whether or not a CEO's knowledge of financial statements mattered to the executives. Some data pertained to each participant's official functions in relation to finance and accounting. The expert panelists were requested to provide information regarding which departments they perceived as needing managers with degrees in the finance or accounting related fields. Categorization was used to determine the weights of their answers.

Table 16. Income performance categories and responsiveness index to financial education and knowledge categories

Growth	No Change	Decline
30.0%	0.00%	0.00%
0.00%	50.0%	0.00%
0.00%	0.00%	20.0%

Chi-square was used to test goodness of fit and distribution of statistics. At .766 (2-sided) the statistical distribution can be described. Furthermore, with degree of freedom at the levels of 2, 2, and 1 for respectively Pearson Chi-Square, likelihood ratio and linear-by-linear association tests confirm the validity of the

pertinent statistical distribution. The exact significance of the statistical distribution stand respectively at 0.766, 0.763 and 0.716 which are higher than the cut off  $p$ -value for statistical tests. These statistics further confirm the validity of data generated by Pearson product moment correlation tests.

Table 17. Chi-Square tests goodness of fit and statistical distribution validity

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	.533(a)	2	.766
Likelihood Ratio	.541	2	.763
Linear-by-Linear Association	.133	1	.716
N of Valid Cases 12			

## CHAPTER 5. DISCUSSION, IMPLICATIONS, RECOMMENDATIONS

### Summary and Discussion of Results

The purpose of this study was to determine the relationship between a department level manager's knowledge of financial statements and the corporation's net income. According to a research study by Burgess (2007), "increasing pressure on profitability means it is essential to maintaining tight controls, and hence there is an increasing role for managers in general to take responsibility for various financial aspects in their units or departments" (p. 117). The maintaining of tight controls may be impossible unless the controllers have an understanding of the workings of their corporation's finances. Because Wallace (1997) found a gap that represented managers' lack of grasp of booking entries, his question "Where are the debits and credits?" (p. 229) supported the quest for a correlation between the variables referred to above.

The key findings from this study indicated that a corporation's net income did not increase or decrease just because of the level of financial knowledge of the department level managers. The Delphi expert panel members either currently occupy or occupied department level management positions. Their corporations' net income responded to factors other than the experiential knowledge or degree in Finance. Members of the Delphi panel answered the same questions twice with ample opportunity between the two occasions to enable them change their

positions on the issues covered in the questions. Subsequently, there were noticeable but little shifts in positions.

The total sample population was  $N = 12(2)$  with an uneven distribution of career, academic discipline, experiential knowledge, financial background and level of education. The degrees represented within the expert panel included undergraduate, graduate and the doctorate. The respective educational fields of panelists included business administration, marketing, jurisprudence, medicine, economics, public administration, and finance. While a member of the expert panel with undergraduate degree additionally took several graduate courses in finance, another member skipped the discussion entirely. His reason for skipping the topic of discussion was not determined.

The diverse representation of managers' educational qualifications, viewed against the background of data collected showed that corporations did not place a noticeable premium on the actual degrees possessed by their departmental managers. Based on data analysis, therefore, the corporations did not witness net income increase arising from the educational qualification of their departmental managers. Members of the panel also indicated that the exact educational level or discipline reflected in their degrees did not matter to their companies as much as each manager's responsiveness to corporate challenges did to the organizations' leadership. Consequent upon this fact, managers did not make efforts to acquire finance knowledge or finance education. It is unknown, therefore, whether or not any corporation would be an exception to this general finding.

This investigation did not pursue the reason for the lack of correlation, since it is outside the scope of the study. Based on the expert panel research data, their respective qualifications and experience remained the same in the successive years of their services with their companies. However, the net income of their companies varied based on other factors than their years of experience, level of education, or educational discipline and specialization. A minority reported a net income increase in a subsequent financial year over that of the prior year. These findings reaffirm more the lack of a relationship between the department level managers' knowledge of financial statements and the companies' net income than a relationship, in spite of the minority. The case of the minority could be investigated further in a study that is geared towards that deviation. Based on the above findings, this investigation is able to say that companies employ managers who possess qualifications that are unilaterally determined based on each company's perspectives at the time of hiring. Two out of the 12 panel members of the expert panel had the same type of MBA degree. In their respective corporations, they work in different kinds of departments. None of them has a bias for Finance. This investigation is, therefore, capable of interpreting that those managers' departments are doing well in the opinion of their corporations. The managers' lack of financial knowledge was not accountable for any possible milestones that the corporation could have accomplished, but did not accomplish them. Research data from this investigation showed that if a corporation did well financially, the corporation's leaders would not ascribe such success to the financial knowledge possessed by its managers. Conversely, if the corporation's

fortunes dwindled, the corporation would not ascribe such misfortune to a lack of understanding of how corporate money matters worked.

### Conclusion

The importance of this finding hinged on the need to draw a line between high and low net incomes in the context of having or lacking highly qualified financially knowledgeable individuals leading departments within a corporation. This finding was also important because corporations would now be able to understand the non-existence of a correlation, and base their hiring, training and management development efforts on Corporations may also rely on this study to create opportunities for officers who are upwardly mobile within their organizations regardless of their finance knowledge. Findings from this investigation did not state that a corporation should not hire finance experts to lead departments. It recognized, however, that each corporation could hire a non-finance graduate to lead any department. It also recognized that managers leading departments other than finance or accounting could pursue finance knowledge or formal educational studies in finance and accounting areas, but that such acquisition did not necessarily translate to an increase in the company's net income. Finally, this study found that company net income could increase or dwindle from one year to another as a result of other factors (not herein identified) than the managers' finance knowledge or experiential background in finance.

When a review of scholarly literature found Howlett et al. (2008) stating, "in the absence of financial knowledge, department level managers' consideration



of their corporation's future consequences will have little influence on the likelihood of contributing to a net income effort" (p. 6), it was motivated to determine the validity of that claim. However, this investigation has found that department level manager's high financial knowledge did not carry enough weight. If financial knowledge was lacking, when the department level manager thought about his corporation's future, his or her lack of that knowledge would not affect his or her input in the corporation's efforts towards achieving or increasing net income. As a result of Howlett et al's (2008) postulation, it appeared more scientific for this investigation to state that the more the knowledge of finance, the more likely the department manager would be to decide in favor of future success. Incidentally, the expert panel of department level managers has shown the reverse to be the case. This means that some things may appear scientific but fail the necessary tests. Based also on the findings, this investigation cannot say that the less the knowledge of finance, the less likely it is for the department manager to decide in favor of the corporation's future success. This is because the expert panel of 12, made up of department level managers, possessing graduate and undergraduate degrees, and possessing a combined 102 years experience with financial statements has shown that even with the disparity in the types, levels and disciplines of their educational degrees, an increase or decrease in net income did not depend on all above-mentioned factors. Even though Howlett et al. (2008) had about the strongest voice in the direction of this substantive study, the contribution of the expert panel has brought the subject matter in perspective, revealing that

there was no correlation between a department level manager's level of financial knowledge and the corporation's net income.

Lusardi and Mitchell (2007) drew attention to Kimball and Shumway's (2006) reporting "a large positive correlation between financial sophistication and portfolio choice" (p. 7). Data from this substantive investigation shows that the large positive correlation reported above does not apply across the board. This investigation may, therefore, take it that the financial sophistication that leads to portfolio choice must be related to department managers whose specific job functions pertained to portfolio choices. In that case, following the findings of this substantive research, the manager entrusted with making decisions on corporate financial portfolio must have been hired with that function in mind, and may, therefore, be viewed as a deviation. Consequently, he or she would have already acquired the necessary educational and experiential knowledge pertinent for effective performance of such job functions. Data from this substantive research does, therefore, not support Lusardi and Mitchell's (2007) statement when made in isolation.

#### Recommendation for Future Study

As a result of revelations made in the review of pertinent literature prior to data collection, it appeared to this study that there would be a correlation between the two variables. However, the scope of this study did not warrant the measurement of the extents of the variables. It is not known whether or not the manning of all departments of a corporation by finance and accounting graduates

would produce better or positive financial results. It is also not known how much knowledge of finance and accounting they would have in order to produce what the corporation would regard as positive financial results. On the other hand, due also to the scope of this study, data analysis was unable to measure how much more knowledge that the panel members could have in order to influence their corporation's net income, especially for the whose corporations' net incomes did not increase in the subsequent year over those of the prior year. Consequent upon all above, this investigation recommends further study into a specific corporation's department management strategy with a view to understanding the specific percentage of the net income achieved as a result of a department manager's specific level of education over a given number of years of service, number of years of experience with financial statements, and type of degree and disparity between the discipline of qualification and the discipline of finance or accounting.

As generally true as Mandell and Klein's (2007) research study found, "Despite the importance of financial literacy, surveys demonstrate that American youth and adults do not possess the basic knowledge needed to make good financial choices" (p. 8), this substantive investigation has learned from the expert panel that the identified lack of basic knowledge referred to above has not affected the corporations represented by the department managers possessing 102 years of combined experience with financial statements.

Further research is recommended with a focus on corporations that are either randomly selected or specifically chosen. Corporations can also rely on this

investigation to initiate their own research with a view to identifying what influences an increase or decrease in their net incomes. Such a research, or an extension thereof may provide the corporations with the causal links between a corporation's net income and the experience or actions of its key managers. Further research could look into the reasons behind the positions taken by members of the expert panel. There may also be a need to investigate the extent to which a department manager exercises ownership of the task he or she performs for the corporation. Under such circumstances, research methodology may change in order to capture those types of circumstances described above. This study recognized that in the course of the recommended further study, a research may find aspects of the subject that might not have been mentioned in this study. Such development will most likely contribute to further understanding of the positions taken by this investigation's research participants. It will also interest the scholarly community to know whether the minority who reported that their companies' net incomes increased in the new financial year over the previous one was a negligible deviation or a pointer to larger possibilities along the lines of department managers' financial knowledge.

The Delphi Technique assisted this study to give participants two opportunities to state their stands on the questions of discussion. Though their positions changed slightly in the second iteration, the consensus built was not significantly different from their initial attempts at the questions. This means that majority of them were convinced that their initial answers were correct. Furthermore, those who changed their positions were found to rally around the

majority, thereby increasing data strength in favor of already recognizable strong datasets.

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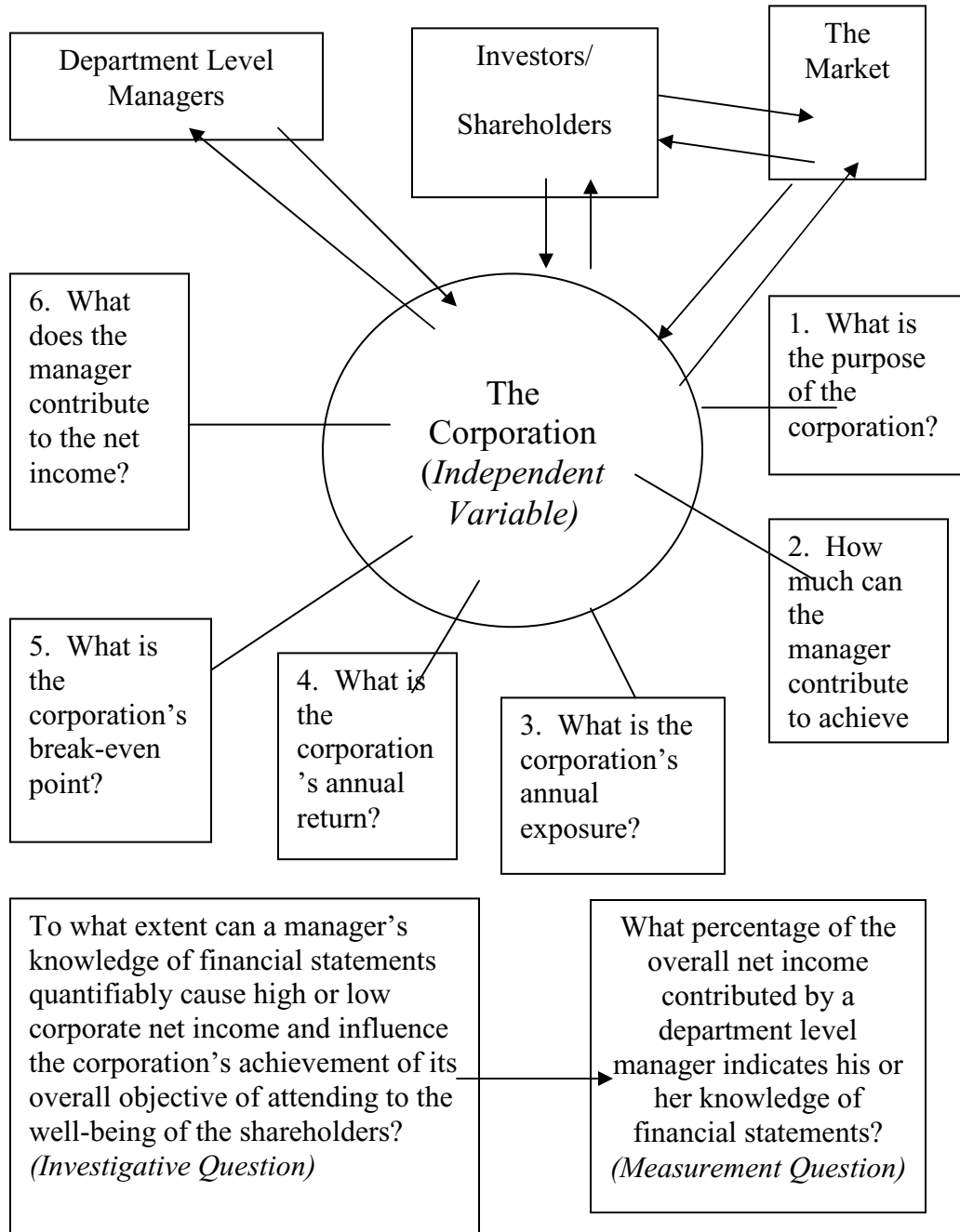


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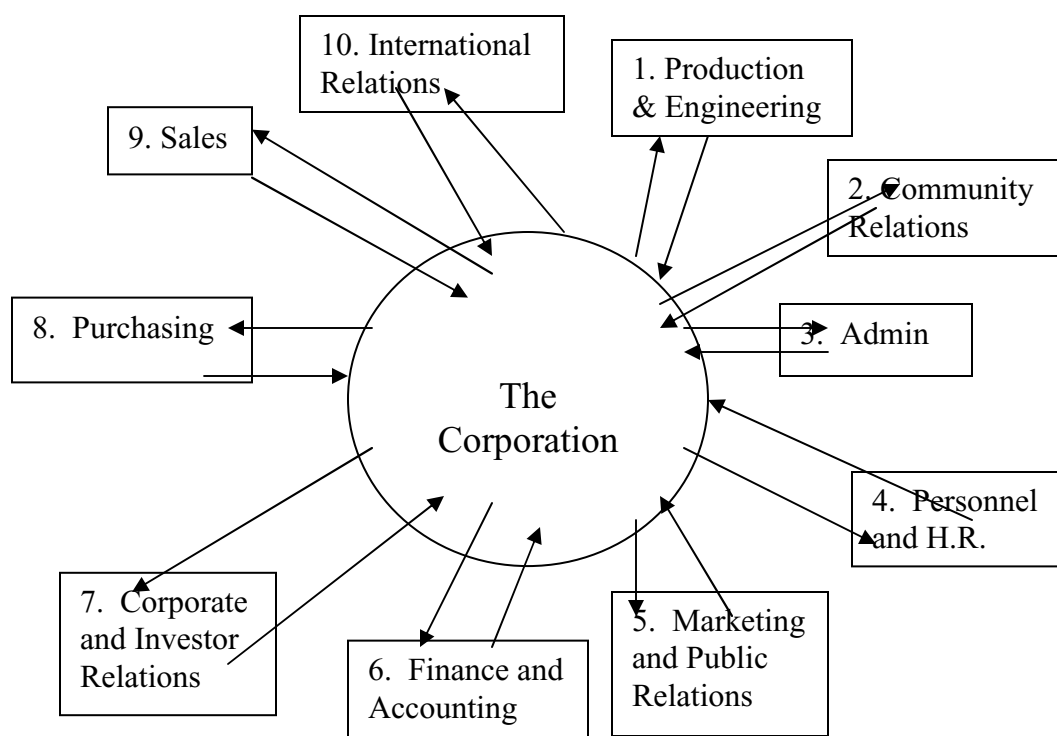
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**APPENDIX A. CONCEPTUAL FRAMEWORK**  
 “The Relationship Between a Department Level Manager’s Knowledge of Financial Statements and the Corporation’s Net Income”



Frederick Nwosu/February 2009

## APPENDIX B. ACTIVE-MANAGER DEPARTMENTS



Department	Manager	Background	Financial
Production and Engineering	Senior	Engineering	Hands-on
Community Relations	Junior	Marketing	Short Course
Administration	Middle	Sociology	Minor
Personnel and Human Relations	Middle	Business Management	Minor
Marketing and Public Relations	Senior	Marketing	None
Finance and Accounting	Middle	Accounting	Major
Corporate and Investor Relations	Senior	Marketing	Major
Purchasing	Senior	Business Management	Minor
Sales	Junior	Business Management	Short Course
International Relations	Senior	Sociology	None

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APPENDIX C. DEPARTMENTAL EFFICIENCY CONTRIBUTION TO NET  
INCOME

Department	2005	2006	2007	2008*
Production and Engineering	10%	10%	10%	10%
Community Relations	10%	10%	10%	10%
Administration	10%	10%	10%	10%
Personnel and Human Relations	10%	10%	10%	10%
Marketing and Public Relations	10%	10%	10%	10%
Finance and Accounting	10%	10%	10%	10%
Corporate and Investor Relations	10%	10%	10%	10%
Purchasing	10%	10%	10%	10%
Sales	10%	10%	10%	10%
International Relations	10%	10%	10%	10%

\* No significant correlation was found. Therefore, all departments share equal fame and fortune, as their respective contributions to net income do not depend on the department manager's level of financial knowledge.

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## APPENDIX D. DELPHI FIRST-ROUND SURVEY QUESTIONNAIRE

1. I understand the procedures and conditions of my participation as described in the full consent form. My questions have been answered to my satisfaction and I agree to voluntarily participate in this study. I have been given a PDF copy of the full consent form and will indicate my assent to participate in this web-based survey by selecting YES below. Otherwise, I will select NO.		Response Percent	Response Count
YES			
NO			

Page: Introduction			
1. Does your official job function require that you use and understand financial statements?		Response Percent	Response Count
YES			
NO			

Page: YOUR KNOWLEDGE			
1. To what extent do you use financial statements?		Response Percent	Response Count
Numerous times on a daily basis			
Numerous times on a weekly basis			
Often on a daily basis			
Often on a weekly basis			
A few times on a daily basis			
A few times on a weekly basis			

2. Kindly explain the circumstances surrounding your use of financial statements.		Response Count	View
---	--	-------------------	------

Page:			
1. Based on your perceptions, how does your company rank the importance of a strong financial statement? In other words, which segment benefits from a strong financial performance?		Response Percent	Response Count
Executive compensation			
Department-level manger compensation			
Rank and file employee compensation			
Company stockholders			
Reinvestment in the company (R & D)			

2. Kindly state the reasoning behind your choice.		Response Count	View
---	--	-------------------	------

3. Please rank the following in order of their importance to you:		Top ranked	Second	Third	Response Count
Balance Sheet					
Income Statement					
Cash Flow Statement					

4. Kindly state the reasoning behind your choices.  
 Response Count View

Page: The CEO

1. Do you think it is important that a CEO's fully understand financial statements?  
 Response Percent Response Count  
 YES  
 NO

2. Do believe that a CEO's knowledge of financial statements is necessary no matter the nature of the business?  
 Response Percent Response Count  
 YES  
 NO

3. Do you think that your upper-level management understands financial statements?  
 Response Percent Response Count  
 YES  
 NO  
 UNSURE

4. Kindly state the reasoning behind your responses relevant to the CEO and upper management at your company.  
 Response Count View

Page: Formal Financial Training

1. Considering education, in your expert opinion, how important is it that managers in the listed departments have a formal degree in finance or accounting?  
 Extremely Very Unsure Somewhat Unimportant Response Count

	Extremely	Very	Unsure	Somewhat	Unimportant	Response Count
Production and Engineering						
Community Relations						
Administration						
Personnel and Human Relations						
Marketing and Public Relations						
Finance and Accounting						
Corporate and Investor Relations						
Purchasing						
Sales						
International Relations						

2. Kindly state the reasoning behind your choices.

2. Kindly state the reasoning behind your choices.  
 Response Count View

Page: Financial Experience and Background

1. Considering knowledge and experience, in your expert opinion, how important is it that managers in the listed departments have a strong experiential background in finance or accounting?

	Extremely	Very	Unsure	Somewhat	Unimportant	Response Count
Production and Engineering						
Community Relations						
Administration						
Personnel and Human Relations						
Marketing and Public Relations						
Finance and Accounting						
Corporate and Investor Relations						
Purchasing						
Sales						
International Relations						

2. Kindly state the reasoning behind your responses.  
 Response Count View

Page: Departmental Managers

1. To what extent is it important that the listed department managers read, inspect or try to understand the corporation's financial statements?

	Extremely	Very	Unsure	Somewhat	Unimportant	Response Count
Production and Engineering						
Community Relations						
Administration						
Personnel and Human Relations						
Marketing and Public Relations						
Finance and Accounting						
Corporate and Investor						



1. To what extent is it important that the listed department managers read, inspect or try to understand the corporation's financial statements?

Relations  
Purchasing  
Sales  
International  
Relations

2. Kindly justify your choices.

Response Count View

Page: Survey Complete

1. Please complete this sentence: "In my opinion, this survey

	Response Percent	Response Count
Was too long		
Was somewhat long		
Was a good length for the topic		
I am not sure		

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## APPENDIX E. DELPHI SECOND-ROUND SURVEY QUESTIONNAIRE

Page: Online Assent	
1. I understand the procedures and conditions of my participation as described in the full consent form. My questions have been answered to my satisfaction and I agree to voluntarily participate in this second round of the study. I have been given a PDF copy of the full consent form and will indicate my assent to participate in this web-based survey by selecting YES below. Otherwise, I will select NO.	
	Response Response Percent Count
YES	
NO	

Page: Introduction		
1. To what extent do you use financial statements?		
	Response Percent	Response Count
Numerous times on a daily basis		
Numerous times on a weekly basis		
Often on a daily basis		
Often on a weekly basis		
A few times on a daily basis		
A few times on a weekly basis		

Page:	
1. Based on your perceptions, how does your company rank the importance of a strong financial statement? In other words, which segment benefits from a strong financial performance?	
	Response Response Percent Count
Executive compensation	
Department-level manager compensation	
Rank and file employee compensation	
Company stockholders	
Reinvestment in the company (R & D)	

2. Kindly state the reasoning behind your choice.	
Response Count	View

3. Please rank the following in order of their importance to you:				
	Top ranked	Second	Third	Response Count
Balance Sheet				
Income Statement				
Cash Flow Statement				

4. Kindly state the reasoning behind your choices.	
Response Count	View

Page: The CEO

1. Do you think it is important that a CEO's fully understand financial statements?		
	Response Percent	Response Count
YES		
NO		

2. Do believe that a CEO's knowledge of financial statements is necessary no matter the nature of the business?		
	Response Percent	Response Count
YES		
NO		

3. Do you think that your upper-level management understands financial statements?		
	Response Percent	Response Count
YES		
NO		
UNSURE		

Page: Formal Financial Training

1. Considering education, in your expert opinion, how important is it that managers in the listed departments have a formal degree in finance or accounting?						
	Extremely	Very	Unsure	Somewhat	Unimportant	Response Count
Production and Engineering						
Community Relations						
Administration						
Personnel and Human Relations						
Marketing and Public Relations						
Finance and Accounting						
Corporate and Investor Relations						
Purchasing						
Sales						
International Relations						

Page: Financial Experience and Background

1. Considering knowledge and experience, in your expert opinion, how important is it that managers in the listed departments have a strong experiential background in finance or accounting?						
	Extremely	Very	Unsure	Somewhat	Unimportant	Response

1. Considering knowledge and experience, in your expert opinion, how important is it that managers in the listed departments have a strong experiential background in finance or accounting?		Count
Production and Engineering Community Relations Administration Personnel and Human Relations Marketing and Public Relations Finance and Accounting Corporate and Investor Relations Purchasing Sales International Relations		

Page: Departmental Managers

1. To what extent is it important that the listed department managers read, inspect or try to understand the corporation's financial statements?						Response Count
Extremely	Very	Unsure	Somewhat	Unimportant		
Production and Engineering Community Relations Administration Personnel and Human Relations Marketing and Public Relations Finance and Accounting Corporate and Investor Relations Purchasing Sales International Relations						

Page: Demographic

1. How many years have you worked with financial statements?

1. How many years have you worked with financial statements?	
Response Count	View

2. Please choose the criterion that fits your level of training in the finance area:	
	Response Percent      Response Count
Ph.D. in Finance or Accounting	
MBA in Finance or Accounting	
M.S./MBA/MA in Finance or Accounting	
B.S./B.A. in Finance or Accounting	
A.S./A.A. in Finance or Accounting	
<input type="button" value="View"/> Other (please specify)	

3. Please choose only one statement that best describes your company over the past twelve months.	
	Response Count
The company's net income is unchanged compared to the year before.	
The company's net income is high compared to the year before.	
The company's net income is low compared to the year before.	

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**APPENDIX F. COMPANY'S MOST RECENT NET INCOME COMPARED  
TO PRIOR YEAR: CATEGORIES FOR TRAINING AND EXPERIENCE  
VARIABLES**

		Training			Total	Experience		Total
		Category for training variable				Category for Experience		
		Low	High	Total	1	3	Total	
Company's Net income For year Compared to last year	Lower	Count						
			3	1	4	2	2	4
		Expected	2.0	2.0	4.0	2.0	2.0	4.0
		Count						
		% within Company's net income for year compared to last year	75.0%	25.0%	100.0%	50.0%	50.0%	100.0%
		% within Category for training variable	50.0%	16.7%	33.3%	33.3%	33.3%	33.3%
		% of Total	25.0%	8.3%	33.3%	16.7%	16.7%	33.3%
	Unchanged	Count	3	2	5	3	2	5
		Expected	2.5	2.5	5.0	2.5	2.5	5.0
		Count						
		% within Company's net income for year compared to last year	60.0%	40.0%	100.0%	60.0%	40.0%	100.0%
		% within Category for training variable	50.0%	33.3%	41.7%	50.0%	33.3%	41.7%
% of Total		25.0%	16.7%	41.7%	25.0%	16.7%	41.7%	
Higher	Count	0	3	3	1	2	3	
	Expected	1.5	1.5	3.0	1.5	1.5	3.0	
	Count							
	% within Company's net income for year compared to last year	.0%	100.0%	100.0%	33.3%	66.7%	100.0%	
	% within Category for training variable	.0%	50.0%	25.0%	16.7%	33.3%	25.0%	
	% of Total	.0%	25.0%	25.0%	8.3%	16.7%	25.0%	
Total	Count	6	6	6	12	6	12	
	Expected	6.0	6.0	6.0	12.0	6.0	12.0	
	Count							
	% within Company's net income for year compared to last year	50.0%	50.0%	50.0%	100.0%	50.0%	100.0%	
	% within Category for training variable	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	
	% of Total	50.0%	50.0%	50.0%	100.0%	50.0%	100.0%	