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The Ethical implications of ISO 9001 implementation practices

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THE ETHICAL IMPLICATIONS
OF ISO 9001 IMPLEMENTATION PRACTICES

A Thesis

Presented to the Faculty of the Department of Graduate Studies

San Jose State University

In Partial Fulfillment of the Requirements for the Degree

Master of Arts

Angela M. Whitney

December 1997

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ABSTRACT

THE ETHICAL IMPLICATIONS OF ISO 9001 IMPLEMENTATION PRACTICES

by Angela M. Whitney

This research explores the ethical implications of implementing quality standards by comparing the ISO implementation practices of three similar engineering companies currently registered to ISO 9001. In addition, this study examines the validity of ISO as an effective quality standard.

The research reveals a direct relationship between a supplier's ISO implementation practices and its underlying ethical philosophy. Further, there is a significant correlation between a supplier's pre-existing quality policy and ISO implementation. If a supplier is already committed to quality, ISO standards are likely to be a useful supplement to the existing quality foundation. ISO's success depends largely upon how a supplier embraces, implements, and effectively maintains the ISO standards.

While ISO marks significant progress in business, it has also created its own industry of consultants, auditors, and registrars. This industry is making phenomenal profits from the growing trend to register American businesses to ISO 9000 quality assurance standards.

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I believe that no one writes or creates in a vacuum, for we all are influenced by the forces that touch our lives. I am fortunate to have had the support of many wonderful people who contributed to my education and the success of this thesis. I am genuinely grateful to all of them. A few, however, deserve special mention.

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1. Introduction

Executives and employees in every industry encounter a variety of situations in which ethics are a critical factor. Depending on their backgrounds, the company culture, and their own personal ethics, the people who comprise the modern work force deal with ethical situations differently. However, one thing is certain—the better understanding they have of the issues surrounding ethical situations, the more likely they are to have the ability to resolve such issues in a productive and professional manner.

With all of the deadlines, competition, and stress in the engineering industries, ethical considerations are sometimes secondary to productivity. Hard-working business people, from executives and engineers to technicians and assemblers, often compromise their personal ethics for the sake of professional performance, and in the corporate chaos of manufacturing greater quantities at lesser costs, profit becomes the dictator. The pressures of business increase every day, and primary among those pressures are customer expectations.

To stay in business, an engineering company must manufacture quality products on time, sell them at a price the customer is willing to pay, provide excellent service throughout the life of the product, *and* earn a profit. Customers have become more and more demanding, further limiting the margins for profit. Consequently, companies not only have to keep up with their competitors, they have to prove their ability to supply quality products and services to their customers. As a result, registrations to quality standards, such as ISO 9001, have increased dramatically.

Just as an individual's personal ethics offer insight into the quality of that person's character, a company's professional or business ethics can indicate the quality of its products and overall business practices. As more organizations pursue certification to quality standards, the business community should be increasingly aware of the intrinsic relationship between ethics and quality.

This paper examines ethics and quality through the framework of three case studies that explore the ethical implications of implementing quality standards. Specifically, this research compares the ISO implementation practices of three similar engineering companies that are currently registered to ISO 9001, the most comprehensive of the quality standards in the ISO 9000 Series. This research addresses the following assertions and concerns:

If a company exercises the ability to distinguish right from wrong and is committed to doing what is right, it will build quality into its products. Unfortunately, individual businesses do not always have the time, the manpower, or the budget to manufacture the ideal product, so inevitably, they must make some sacrifices. If a company sacrifices quality, the people or organizations who purchase products from that company may view that decision as a breach of ethics. If—during the process of implementing ISO 9001: a worldwide standard, or model, for quality assurance—a company compromises its own ethical philosophy, or the ethical considerations of its employees and customers, what are the implications for the organizations involved?

This paper is divided into seven main sections:

- **Methods Used in Researching and Reporting this Material**

This section explains the author's approach to conducting research for this project, including the author's background, research methods, and conventions used in reporting research findings.

- **Ethics**

This section provides a definition and history of ethics, which serves as the foundation for the relationship between ethics and quality.

- **Overview of the Relationship between Ethics and Quality**

This section emphasizes the premise of the research being presented. It serves as an overview of the ethical issues surrounding a company's decision to pursue ISO registration.

- **TQM and ISO**

This section defines TQM and emphasizes the main differences between TQM and ISO.

- **ISO 9000**

This section provides a definition and history of ISO, and discusses the ISO 9000 Series, its benefits, and limitations as they relate to modern business.

- **Case Studies of ISO Implementation Practices**

This section explains what implementation practices are, and discusses the two primary implementation philosophies. These philosophies serve as a

foundation for the case-study findings, which summarize and compare the individual implementation practices of the three engineering companies that are evaluated in this study.

- **Conclusions**

This section presents the conclusions drawn from the case studies, and explores the thriving industry that has grown out of the pursuit for quality standards.

2. Methods Used in Researching and Reporting this Material

The author became interested in ISO 9000 in September of 1995, attended a two-day seminar on ISO 9000 Documentation, and accepted a position as senior facilitator and technical writer with a company that was about to embark on the process of ISO registration in January of 1996. As a facilitator and technical writer, it was the author's responsibility to direct groups of managers, engineers, drafters, planners, assemblers, and technicians through meetings in which the goal was to document the combined efforts of several distinct job descriptions as one coherent and fluid process. These "process-mapping" meetings were the main resource for what was to become the company's formal ISO documentation, which was written by the author of this research and collaboratively edited by a team of writers.

One year later, having completed the required documentation for the company's ISO implementation project, the author began studying the implementation practices of several other companies to explore the idea of writing a thesis on the subject of ISO implementation. The idea grew into a full-scale project, and the author surveyed ten engineering companies to gather the information needed to analyze the similarities and differences in various implementation practices. The author had at least one personal or referred contact within each company. Each contact determined the method of delivery for surveys to be administered within the contact's own company. Most contacts preferred hardcopy or electronic surveys over personal interviews and phone surveys.

From the ten companies surveyed, a combined total of 138 responses were received. The author chose three of the ten companies to present in the study. These three were selected based on the following:

- The three companies are all registered to ISO 9001.
- The type of business they do is similar.
- At least one person within each company participated in a personal interview with the author.
- Each of the three companies returned approximately 20 survey responses.
- The implementation practices of the three companies represent a reasonable cross section of what other companies are doing.

Information on the subject was disclosed to the author in confidence, with the understanding that the names of the participating companies and their employees would not be revealed. To preserve the anonymity of participants, each of the three companies has been given a fictitious name within this document. Direct quotes from employees of these companies acknowledge the general positions of the individuals being quoted; no names are cited in the references. Survey responses have been tallied and summarized in the Appendix, but all references to names and confidential information have been omitted.

3. Ethics

What are *ethics*, where did they come from, and how do they apply to modern business? These questions are addressed in this section.

3.1 Definition

Many phrases are used to describe the often intangible concept of ethics. To many individuals, ethics are synonymous with morals, and they are variously defined as “moral principles,” “rules of conduct,” “a code of virtues,” or “professional standards.” Kenneth Blanchard and Norman Vincent Peale accurately assessed the complexity of ethics when they wrote, “Dealing with such a topic as ethics is like untangling a fishing line. The more you get into it, the more complicated it becomes” (1988, 7).

While the terms *ethics* and *morality* are often used interchangeably in discussing ethics, it is helpful to define them both to gain a clearer understanding of the subtle distinction between the two concepts. While they are different, the terms are related. Ethics is concerned with the development and justification of principles that can be applied to specific dilemmas requiring individuals to make decisions about a particular action or practice. According to Patricia Ann Bick, Business Librarian at the University of Notre Dame, “Ethics is the study of the moral judgments people make and the rules and principles upon which such judgments are based. Applied ethics is the application of an understanding of what is good and right to a particular profession or institution. Business ethics is the application of an understanding of what is good and right to that

assortment of institutions, technologies, transactions, activities, and pursuits which we call ‘business’” (1988, 1).

“Morality, on the other hand,” according to Rogene A. Buchholz, instructor of Business Ethics at the University of Texas at Dallas, “generally refers to traditions of belief that have evolved in societies over many years or even centuries concerning right and wrong conduct. Morality can be thought of as a social institution that has a history and a code of conduct that is implicit or explicit about how people ought to behave” (1989, 4). Thus, the two terms *ethics* and *morality* help define each other, and ethical decisions are, in part, based on an individual’s moral philosophy or upbringing.

Simply stated, ethics are the principles of right and good conduct. A useful definition of ethics comes from Indiana State Senator Robert Garton, who states, “Ethical behavior flows from the ability to distinguish right from wrong and the commitment to do what is right” (1989, 25).

3.2 History of Ethics

The concept of ethics has been studied and written about since the time of the Greek philosophers. As a philosophy, ethics is an inquiry into the various theories of human welfare. In basic terms, these theories contemplate and attempt to explain the opposing forces that define humanity—good versus evil, right versus wrong, and acceptable versus unacceptable. The significance of these opposing forces is considered in terms of what is appropriate to promote human welfare and to attain a life worth living.

Throughout history, the study of ethics has been divided into three approaches: descriptive, analytical, and prescriptive.

3.2.1 Descriptive Approach

The descriptive approach simply reports the ethics and value sets that are observed in a culture, society, or institution. This approach consists of factual descriptions, scientific studies, and explanations of moral behaviors and beliefs that exist in various communities. *Descriptive ethics* is neutral; it is not concerned with judging the superiority or inferiority of the various ethical systems that are encountered throughout the world.

3.2.2 Analytical Approach

The analytical approach is often referred to as conceptual ethics, and it consists of defining the key terms in ethics in an attempt to understand the underlying principles of ethical systems. This approach clarifies and evaluates assumptions about ethical systems. and through this approach, the meaning and justification of those assumptions are explored. *Analytical ethics* is concerned with resolving the conflicts between existing ethical theories by attempting to judge them from the perspective of ideal human behavior.

3.2.3 Prescriptive Approach

The prescriptive approach is commonly referred to as *general normative ethics*. This approach attempts to prescribe a particular set of principles by which people should

live. General normative ethics strives to reveal, formulate, and justify the basic principles of an ethical system.

Applied normative ethics is a branch of general normative ethics and is concerned with examining the responsibilities of people who regularly encounter ethical issues in specific environments, such as particular professions, organizations, or institutions. Applied normative ethics uses general normative ethics as a foundation for exploring ethical issues common to specific arenas. Thus business ethics is a type of applied normative ethics because business ethics is concerned with clarifying the dilemmas and obligations faced by the individuals who make business decisions (Buchholz 1989).

Quality is one of the critical aspects of business that decision-making individuals are obligated to manage; consequently, there is a direct relationship between business ethics and quality. Therefore, business ethics should help clarify an organization's quality policy. Similarly, a company's quality policy should reflect the organization's ethical philosophy. This premise helps to begin untangling the fishing line. For example, if a company consciously chooses to sacrifice quality to cut costs or meet deadlines, consumers are likely to categorize that decision as unethical. Furthermore, the actions required to support the unethical decision hypothesized in this example will have a direct effect on the quality of the product the company manufactures.

Any unethical behavior can affect quality. Most businesses have a document that defines the company's quality policy, and that quality policy typically emphasizes the organization's commitment to quality and ethics. In some companies, the quality manual

delineates actions that are not acceptable or appropriate on company property, within the organization, and with regard to representing the organization. Such guidelines define the company's ethical philosophy. For example, fraud, embezzlement, and sexual harassment are illegal. Re-engineering, misrepresentation, and false impicature are unethical. Both illegal and unethical actions affect the quality of trust, morale, productivity, and rapport within an organization.

3.3 The Evolution of Ethics in Modern Business

It is beyond the scope of this paper to trace a detailed evolution of ethics, but one must have a basic understanding of the social climate that produced business ethics and to recognize that the evolution of ethics in modern business has a political foundation. This political factor raises some crucial questions about untangling the relationship between ethics and quality.

Ethical principles for business practices have always existed. Since the time of the first trade and agricultural endeavors, people perceived that there was a right way and a wrong way to go about one's business. The earliest codes of conduct were understood, not spoken, or written, but punishable when broken. When the Old Testament was written, ethical conduct was clearly defined—"Thou shalt not steal"—and the foundation of business ethics was simple honesty. As business evolved from agriculture to industry, a national economy replaced a localized one, and the nature of competition was forever changed. In his book, *Power and Morality*, Saul Engelbourg examines the trends in the behavior of big businessmen from 1840 to 1914, and he discusses the evolution of ethics

that occurred during this period. Speaking of the late nineteenth century, Engelbourg wrote, "It seems likely that the idea of the soulless corporation arose at this time. Businessmen, as agents of change for the corporation, thus found it possible to act in ways they could not act as individuals, because they did not feel personally responsible" (1927, 8).

Engelbourg emphasizes a critical point. A hundred years ago, individuals were able to justify their unethical behavior when acting on behalf of the corporation. Assuming that this type of justification continues, what are the implications of unethical behavior in modern business?

The most significant changes in business ethics grew out of the civil rights movement in the 1960s. With the concern about civil rights for minorities, equality for women, protection of the environment, health and safety in the workplace, and a wide range of consumer issues, came increasing expectations for how businesses should operate. Prior to the 1960s, stockholders and businessmen believed that the main contribution of business to society was the production of goods and services for profit. When people realized that economic growth was having detrimental effects on certain segments of society, they wanted business to take responsibility for its societal ramifications as well as its economic progress (Buchholz 1989). As a result, the concept of *social responsibility* was born. Essentially, social responsibility means that private corporations have responsibilities to society that extend beyond manufacturing goods and providing services for profit. As Buchholz emphasizes, "Corporations are more than

economic institutions and have a responsibility to devote some of their resources to helping to solve some of the most pressing social problems, many of which corporations helped to cause” (1989, 5).

Social responsibility served as the foundation that would eventually shape the role of business in society, but in the 1960s it did little to define the actual obligations of individual businesses. Beginning in the 1970s, a new approach addressed the issues raised by social responsibility. This new approach was called *social responsiveness* (Buchholz 1989). The emphasis was no longer on whether or not business had a social responsibility, but on how business could most effectively respond to social change. Unfortunately, social responsiveness had many of the same fundamental problems inherent in social responsibility, and the proponents of social responsiveness failed to define which patterns of responsiveness had the potential to effect the greatest improvement for society. Another important factor, which Buchholz points out, is that “Research in social responsiveness did not deal very thoroughly with the impact that government regulation was making on the corporation and with how the corporation was responding to this change in the political environment” (1989, 9).

Social responsiveness was a regression from social responsibility in the following respects:

- It placed business in a passive role of responding to social change.
- It did not provide a moral basis for business to get involved in social problems.

- It increased government regulation of business to the point that managerial decisions were so heavily influenced by government regulators that business became increasingly political.

In the 1980s, a serious concern about public policy grew out of the national debate on government regulation. Business leaders began to realize the advantages of getting involved with shaping public policy. If public policy was to dictate how businesses should respond to social values and how businesses were allowed to operate, then it made sense for businesses to include themselves in the writing of the rules by which they had to live.

Currently, businesses are actively involved in shaping public policy. Business leaders try to strategically influence public opinion regarding social issues, and they can effectively influence the laws and regulations by being involved in the public policy process (Buchholz 1989). However, this involvement in public policy raises more ethical issues than it resolves. Though politicians argue that government regulation keeps corporations in check because businesses have a moral obligation to obey the law or face severe penalties, the self-interest being served in corporate and government agencies deserves scrutiny. If government and corporate officials are allowed to decide public policy through the political process, what happens to the ethical question of social responsibility? If corporations have such strong political ties, and government agencies are responsible for establishing quality specifications for the products manufactured by

those corporations, what are the ethical implications of this circular and seemingly symbiotic relationship?

Business ethics is still a subject of debate in the social and political arenas of the 1990s. Society is still trying to determine the appropriate roles for business to play in the community, and the more people dissect what is and is not acceptable within corporate cultures, the more they begin to lose consensus about the standards for business ethics. American business people are becoming increasingly aware of the many gray areas within ethical standards. However, as section 4 of this document explains, American businesses are currently embracing quality standards. The following case studies show that there is a direct connection between the ethical standards a company upholds and the quality standards a company implements.

4. Overview of the Relationship between Ethics and Quality

Throughout the discussion of ethics, this paper has alluded to an implicit relationship between ethics and quality. Exploring this relationship is the focus of the three case studies that follow. To understand the implications of this research, it is important to keep in mind the premise on which the three cases are examined. The thesis for this research is as follows:

If a company exercises the ability to distinguish right from wrong and is committed to doing what is right, it will build quality into its products. Unfortunately, individual businesses do not always have the time, the manpower, or the budget to manufacture the ideal product, so inevitably, they must make some sacrifices. If a company sacrifices quality, the people or organizations who purchase products from that company may view that decision as a breach of ethics. Furthermore, as explained in section 3.2.3, a breach of ethics can affect the quality of a business in many respects—from workmanship and productivity to trust and morale. Similarly, decisions related to quality can be interpreted as a reflection of the company's ethical philosophy. For example, the decision to pursue registration to ISO, a quality standard, is a decision related to quality; the way a company promotes and implements ISO is directly related to the ethical standards the company upholds.

In today's highly competitive markets, quality has become a predominant factor for business success. Customers in every market have become more selective consumers, putting pressure on businesses to provide something more than their competitors can

offer. As a result of intense competition and consumer demands, companies are becoming increasingly aware of the need to prove their ability to supply quality products and services to their customers. This drive for quality and service has culminated in the worldwide quality standard developed by the International Organization for Standardization (ISO).

To compete in the international market and to remain successful domestically, companies are embracing quality standards and specialized management systems, such as ISO and Total Quality Management (TQM), to give their organizations a competitive edge by offering a seal of approval to their customers. Registration to ISO or TQM is a way for businesses to verify that they follow a set of defined standards. The theory is that following quality standards will improve an organization's business practices, and maintaining registration to a set of quality standards will demonstrate to customers that the company is committed to quality improvement.

Total Quality Management (TQM) is explained in section 5 and is followed by a detailed discussion of ISO 9000 in section 6. TQM and ISO provide a foundation for the case study analyses presented in section 7.

5. TQM and ISO

Total Quality Management (TQM) and ISO 9000 are not designed to accomplish the same goals. Whereas ISO is a quality assurance model, or quality *standard*, TQM is a *system* for improving every process within an organization, not just the quality assurance process. According to Dale H. Besterfield, co-author of *Total Quality Management*:

TQM is defined as both a philosophy and a set of guiding principles that represent the foundation of a continuously improving organization. It is the application of quantitative methods and human resources to improve all the processes within an organization and exceed customer needs now and in the future. TQM integrates fundamental management techniques, existing improvement efforts, and technical tools under a disciplined approach. (1995, 2)

ISO is often a key element of TQM, fulfilling the quality improvement component; however, TQM is not an element of ISO. TQM requires the following six basic concepts:

1. A committed and involved management to provide long-term, top-to-bottom organizational support
2. An unwavering focus on the customer, both internally and externally
3. Effective involvement and utilization of the entire work force
4. Continuous improvement of the business and production process
5. Treating suppliers as partners
6. Establish performance measures for the processes (Besterfield 1995, 2)

ISO 9001—the most comprehensive of the ISO standards—on the other hand.

contains the following 20 elements:

1. Management Responsibility
2. The Quality System
3. Contract Review
4. Design Control
5. Document Control
6. Purchasing
7. Customer Supplied Product
8. Product Identification and Traceability
9. Process Control
10. Inspection and Testing
11. Inspection, Measuring, and Test Equipment
12. Inspection and Test Status
13. Control of Nonconforming Product
14. Corrective Action
15. Handling, Storage, Packaging, and Delivery
16. Quality Records
17. Internal Quality Audits
18. Training

19. Servicing

20. Statistical Techniques (Besterfield 1995)

As Lamprecht indicates, ISO and TQM are not incompatible processes (1992, 18); however, it takes more planning, time, resources, and commitment to implement a total quality management “program” because TQM involves the transformation of the company culture, management, and every business process. TQM focuses on building the appropriate emphasis and techniques into the culture to prevent product and process problems, whereas ISO focuses on conformance of the product to specifications (Besterfield 1995).

6. ISO 9000

What is ISO, how did it begin, what does it accomplish, and how is it organized?

These questions, as well as a discussion of the ISO 9000 Series, its benefits, and its limitations, are addressed in the following sections.

6.1 Definition

The International Organization for Standardization (ISO) is a worldwide federation of national standards bodies from approximately 110 countries. Each country has one representative. The American National Standards Institute (ANSI) is the United States' representative, or U.S. member body, to ISO and provides the United States' contributions to ISO's standardization effort.

ISO was established in 1947 as a non-governmental organization. The continuing goal of ISO is to promote the development of standardization and related activities for the purpose of facilitating the international exchange of goods and services. ISO is also concerned with developing harmony among the intellectual, scientific, technological, and economic arenas.

The work of ISO results in international agreements that are published as international standards. Standards are documented agreements containing the technical specifications that an organization must use consistently as rules, guidelines, or definitions of characteristics to ensure that materials, products, processes, and services are appropriate and acceptable for their intended purposes. For example, the consistent use of symbols to convey the same message to multilingual automobile driving audiences is the

result of an ISO international standard. The same symbols for automobile controls are displayed in cars all over the world, no matter where they are manufactured. The significance of adopting such international standards is substantial.

6.2 History

Internationalization began in the electrotechnical field in 1906 when the International Electrotechnical Commission (IEC) was created. Preliminary work in other industries was pioneered by the International Federation of the National Standardizing Associations (ISA), established in 1926. The primary focus of ISA was in mechanical engineering.

The Second World War brought ISA's activities to a halt in 1942, but in 1946, a meeting convened in London to create a new international organization. Delegates from 25 countries shared a common goal to facilitate the international coordination and unification of industrial standards. The new organization, ISO, officially began on 23 February 1947. The first ISO standard, published in 1951, was entitled "Standard Reference Temperature for Industrial Length Measurement."

The International Organization for Standardization is based in Geneva, Switzerland, and its mission is to facilitate the international exchange of goods and services. Knowing that the multitude of existing requirements for quality management systems presented a tremendous barrier to the efficiency of international trade, ISO established a technical committee whose specific purpose was to develop standards for

quality management systems. In 1987, after several years of work, ISO published the first version of the ISO 9000 series standards (Lamprecht 1992).

A common question surrounding the history of ISO addresses the seeming lack of correspondence between the official title *International Organization for Standardization*, and the short reference *ISO*. *ISO* is not an initialism, but an acronym. ISO comes from the Greek word *isos*, which means *equal*. Isos is the root of the prefix *iso-* that occurs in many terms, such as *isometric* and *isotope*. *ISO* was selected as the name of the organization to represent the idea of equal standards.

6.3 ISO in Modern Business

The growth of ISO 9000 registration and recognition in the United States has been phenomenal in the past five years. “If ISO 9000 were a disease, it would qualify as an epidemic” (Kinni 15). Hundreds of companies are embracing ISO, and banners of certification can be seen on many Bay Area buildings, advertising the successful certification to one of the three standards in the ISO 9000 Series.

The ISO 9000 Series is a set of documents established to outline the fundamental requirements for a quality management system. The series is a group of five individual but related documents that address design and development, manufacturing, installation, and service—business processes that have a direct impact on quality. The ISO 9000 standards are generic and can be applied to any organization in any industry. The series does not identify specific strategies or technologies that should be incorporated into a

quality management system, so companies can customize the standards to fit the needs of their individual business practices and requirements.

The ISO 9000 Series comprises five documents: ISO 9000, ISO 9001, ISO 9002, ISO 9003, and ISO 9004. Despite having specific titles, these individual documents are often misunderstood. Many people think of each document as a set of mandatory requirements, when in fact two of the documents provide guidelines for three core documents that are standards of quality assurance. The following list provides a brief description of each document in the ISO 9000 Series.

- **ISO 9000 (ANSI/ASQC Q90-1987)** – Quality Management and Quality Assurance Standards: Guidelines for Selection and Use.
- **ISO 9001 (ANSI/ASQC Q91-1987)** – Quality Systems: Model for Quality Assurance in Design/Development, Production, Installation and Servicing.
- **ISO 9002 (ANSI/ASQC Q92-1987)** – Quality Systems: Model for Quality Assurance in Production and Installation.
- **ISO 9003 (ANSI/ASQC Q93-1987)** – Quality Systems: Model for Quality Assurance in Final Inspection and Test.
- **ISO 9004 (ANSI/ASQC Q94-1987)** – Quality Management and Quality System Elements Guidelines.

The three models for quality assurance, ISO 9001, 9002, and 9003, “represent three distinct forms of functional or organizational capability suitable for two-party

contractual purposes,” whereas ISO 9000 and 9004 are merely guidelines (ANSI 1987, 1).

The ISO 9000 guideline was written primarily to help potential users determine which quality assurance model is most appropriate and relevant to a particular contractual relationship. The ISO 9004 guideline was created to provide users with a tool for developing, implementing, managing, and auditing the actual quality management system.

Recognizing that contractual obligations are the core of most customer-supplier relationships, the international standards-setting bodies chose to organize the ISO quality assurance documents into three broad categories, which are successive subsets of each other. These documents define the specific contractual requirements that auditors use to evaluate an organization’s compliance. The auditors who evaluate ISO standards use specific terminology. The following key terms are referred to throughout the ISO standards: *supplier*, *sub-contractor*, *purchaser*, and *nonconformity*.

The organization supplying a product or service, or the company seeking ISO registration, is referred to as the supplier. Many people refer to the supplier as the *company*, the *manufacturer*, or the *organization*. For example, Amana is a *supplier*. This company designs, manufactures, installs, and services home appliances, and the Amana Heating and Air Conditioning Plant is registered to ISO 9001. Amana must acquire parts to manufacture its furnaces and air conditioners, and those businesses that supply Amana with parts are Amana’s *sub-contractors*. To make a profit, Amana must sell its heating

and air conditioning units. The people, or customers, who buy those units and systems are referred to as *purchasers*. A *nonconformity*, or nonconformance, indicates that Amana is not in compliance with an established specification. These definitions are specific to the ISO 9001–9003 series.

6.3.1 ISO 9001

ISO 9001 is the most comprehensive standard in the series. This model applies to contractual situations in which conformance to specifications must be assured through several phases of development, including design, manufacturing, installation, and servicing systems. As Lamprecht points out, this means that “the primary scope of ISO 9001 is to ensure that a supplier can demonstrate that his quality assurance system is organized in such a way as to prevent the occurrence of nonconformities across all stages from design to servicing” (1992, 21). The ISO 9001 model consists of 20 paragraphs, or requirement sections, which are often described as the 20 elements necessary for developing a quality management system.

6.3.2 ISO 9002

The ISO 9002 model applies to contractual situations in which the product requirements are documented in terms of a design or specification that is already established. In this model, conformance is achieved through adequate demonstration of a company’s production and installation capabilities. ISO 9002 consists of 18 paragraphs, which are identical to those in the ISO 9001 model minus the requirement sections for design control and after-sales servicing.

6.3.3 ISO 9003

ISO 9003 is the least-used model. It applies to contractual situations in which product conformance to specific requirements can be attained through satisfactory demonstration of a supplier's test and inspection capabilities. ISO 9003 consists of only 12 paragraphs. ISO 9003 would be appropriate for an organization that does not manufacture its products, but sells products that have been purchased from other manufacturers or facilities, such as a distributor (Lamprecht 1992).

6.3.4 Summary of the ISO 9000 Series

ISO 9001, 9002, and 9003 are essentially three distinct quality standards for use in different applications, while ISO 9000 and 9004 function as guidelines for helping a company decide which of the three standards a company should choose and how the selected standard should be implemented (Harrington 174-175). Regardless of which standard a company should adopt, ISO 9000 has four fundamental requirements:

- An accepted and documented set of procedures for each business activity
- Proof or verification that the procedures are followed correctly and produce the intended results
- Periodic audits that measure process quality against the documented procedures
- A corrective and preventive action process for when procedures are not followed or do not produce the intended results

Overall, ISO 9000 is meant to ensure that all business procedures are well documented and consistently followed. The ultimate goal is consistency.

6.4 Benefits of ISO

The author of this paper surveyed approximately 60 people involved with ISO 9000 to determine the factors that motivate organizations to pursue registration. Auditors, consultants, employees, project managers, and registrars contributed to the following list of benefits, which are believed to result from implementing one of the ISO quality assurance models. The benefits listed represent the perceptions of those surveyed in response to the following question: What are the potential benefits of ISO registration?

- Achieving ISO registration provides a systematic approach to continuous improvement.
- ISO positively impacts a supplier's credibility in the marketplace.
- ISO ensures that quality is built in, rather than inspected in.
- Adopting an international standard gives businesses that serve multiple industries in many countries an advantage.
- Implementing ISO reveals areas within an organization that need improvement.

- The ISO implementation process creates much needed documentation that provides a training tool and the assurance that procedures are being followed consistently.
- Being registered to ISO satisfies customer [purchaser] requirements.

6.5 Limitations of ISO 9000

The future of U.S./European trade and the maintenance of America's competitiveness depend on the ability of American companies to respond successfully to the challenge posed by the ISO registration process. Unfortunately, ISO registration means different things to different people, and the implementation process can be as different as the companies that seek registration. Consequently, the common goal of consistency and international standardization becomes ambiguous and subjective.

Because every supplier defines quality in a slightly different way, there are certain limitations to ISO standards. ISO 9000 should not be viewed as the solution to every existing business problem; instead, it should be thought of as the minimum level of quality that will be accepted by purchasers. Each individual supplier, not ISO, must improve upon that international standard. ISO 9000 ensures that a supplier's current procedures are accurately documented, understood, and followed. As a quality standard, ISO ensures compliance to an established precedent; however, it does not and cannot ensure success because the emphasis of ISO 9000 is on business processes, not products and profit (Harrington 1995).

ISO 9000 is a tool for demonstrating consistency, not for guaranteeing improvement. If a supplier follows the company's documented procedures, but following those procedures does not produce quality products at an acceptable cost within a specified time frame, ISO alone cannot make that supplier competitive.

7. Case Studies of ISO Implementation Practices

Implementation practices refer to the steps a supplier goes through to achieve registration to ISO 9001, 9002, or 9003. Each supplier typically begins the registration process with a *plan* for implementation; however, the plan reflects the ideal design for the project and often must be adjusted as implementation gets underway. Thus the *practice* refers to the overall experience, what actually takes place during implementation. Simply stated, implementation practices, or methods, are how a supplier incorporates the quality assurance model into its business practices to achieve registration.

The philosophy an organization has regarding ISO is directly related to the implementation practices it chooses to adopt. The author encountered two primary schools of thought regarding the implementation of ISO 9001: the *must* philosophy and the *desirable* philosophy. The suppliers who hold the *must* philosophy perceive ISO 9001 registration as something inevitable, one more task that they must tackle and eventually accomplish. The suppliers who envision the *desirable* approach perceive ISO 9001 registration as an opportunity to improve the way they do business, a chance to incorporate the many changes they have always wanted to implement.

These two approaches are documented in James Lamprecht's text *ISO 9000: Preparing for Registration*. Lamprecht refers to these approaches as the *pragmatic* faction and the *visionary* faction. According to Lamprecht, the *pragmatic*, or *must*, group is "invariably and primarily motivated by a commercial/marketing/business set of convictions," whereas the *visionary*, or *desirable*, group views ISO 9001 as a means to

“reduce internal cost and/or increase efficiency” (1992, 18). The “visionaries” often attempt to transform the entire company through ISO implementation.

Is one approach better than the other? Lamprecht believes that the *pragmatic* approach is more technically accurate—and therefore more effective—because the ISO series documents are models for quality assurance, not models for total quality management (1992). The suppliers who perceive ISO as something that must be done sooner or later, the *pragmatics*, generally just want to get the registration process over with once it has begun. These suppliers take a “no-nonsense” approach to implementation, and they do not get caught up in spending tremendous amounts of money trying to accomplish something ISO was not designed to do.

Lamprecht’s opinion emphasizes the point made in section 5 of this paper: ISO 9000 and Total Quality Management (TQM) are not designed to accomplish the same goals. An unfortunate but common mistake is that many suppliers, particularly those that embrace the *visionary* philosophy, approach and promote ISO as a total quality management system, causing ISO to fail. According to Lamprecht:

. . . companies, or rather individuals, who try to append a total quality “program” on top of an ISO implementation process run a greater risk of stressing the process to the point of break. This is not because the two processes (TQM and ISO) are incompatible but rather because, for a variety of reasons, most individuals or companies do not allocate enough time to carefully plan and smoothly integrate the two processes (1992, 19-20).

7.1 Research Methods

To gain a better understanding of supplier expectations and implementation practices surrounding ISO 9000, the author conducted case studies of three similar electronics companies. All three companies design, develop, and manufacture their own products. These companies are referred to as *suppliers*, and they have all been approved for registration to ISO 9001 and are currently registered to that quality standard. The author interviewed a cross section of ISO 9000 project managers, consultants, registrars, auditors, and quality managers as well as a select group of personnel representing the three suppliers whose implementation practices are discussed in this study.

The following section provides an overview of the ISO implementation practices of the three electronics companies. Each company was evaluated according to the following five categories:

- Implementation Plan
- Goals
- Benefits
- Problems
- Relationship between ISO Implementation and the Pre-Existing Quality Policy

The three companies have been assigned the fictitious names: Pragmatic Widgets, Visionary Widgets, and Common Sense Widgets. The companies are discussed

individually in sections 7.2, 7.3, and 7.4. To review tallies and summaries of survey responses, see “Appendix.”

7.2 Pragmatic Widgets

7.2.1 Implementation Plan

One of the suppliers evaluated in the case study, *Pragmatic Widgets (PW)*, took the no-nonsense approach of the pragmatic philosophy. Pragmatic Widgets did not hire a consultant for the project, and the company made a conscious effort to keep the process simple. According to the quality manager at PW, “a key factor in our smooth implementation was ensuring that all levels of management were committed to achieving registration before we began planning the implementation” (1997).

The ISO project manager reported that the main steps of the company’s plan for implementing ISO 9001 included the following:

- Getting executive management to champion the idea
- Assigning a project manager, steering team, and audit team
- Assessing current practices and documentation
- Providing ISO training to all personnel
- Selecting a registrar
- Developing the implementation plan
- Drafting the quality manual
- Documenting procedures and following them

- Operating under the documented quality system
- Conducting internal audits and correcting problems
- Conducting the pre-assessment audit
- Scheduling the registration audit

7.2.2 Goals

The employees of Pragmatic Widgets agreed that the company's main goal was registration, which they pursued because over 55 percent of the company's business is from Europe and requires all suppliers to be registered to ISO. While PW employees do not believe ISO can guarantee a quality product, they do believe ISO ensures that the company's processes are consistent. According to one of PW's internal auditors, the company's goal was "to do it right the first time. We educated ourselves and committed to the task" (1997).

7.2.3 Benefits

According to the manufacturing manager at PW, "the obvious benefit is the ability to continue doing business in foreign markets and the ability to keep up with our competitors who were already certified" (1997). Though Pragmatic Widgets did not expect to make dramatic changes in the business through implementing ISO, the majority of PW respondents agreed that the implementation process reinforced the company's commitment to quality. A PW accountant stated that there are additional benefits to pursuing registration: "Our company was pretty solid before ISO, so we didn't expect any earth-shattering changes, but we ended up getting a few bonuses for our efforts" (1997).

The additional benefits reported by PW managers and staff include the following:

- Better training materials for employees, resulting from the documentation required by ISO
- Streamlined operations
- Worldwide recognition

7.2.4 Problems

The main problems cited by PW respondents were maintaining current documentation on the production floor and ensuring that the ISO steering team had time to devote to ISO throughout the implementation process. According to the production manager, “Maintaining current documentation on the floor is a major challenge because people make copies, and during the audit, sooner or later, you’ll find a piece of outdated documentation lying around” (1997).

7.2.5 Relationship between ISO Implementation and the Pre-Existing Quality Policy

When asked how the company’s approach to ISO reflects the quality policy that the company had before ISO, the R&D manager responded:

I never really thought about such a relationship on a conscious level, but I always believed that the procedures we followed before ISO, which did not change much as a result of implementation, were good, solid procedures that reflect the company’s dedication to manufacturing quality products. So, yeah, there is a relationship there. If you’re above board with your customers [purchasers] and follow your documented procedures, then the ISO audits will verify that. (1997)

The Technical Services Manager similarly stated:

PW is in a very competitive industry. If we [PW] don't build quality into the product, it won't sell. For our [PW's] situation, implementing ISO 9001 was simply a matter of choosing the right project manager—you have to involve people with the right experience—documenting our current processes, and being careful not to make the process overly bureaucratic. (1997)

7.3 Visionary Widgets

7.3.1 Implementation Plan

A second supplier, referred to as *Visionary Widgets (VW)*, took the transformational approach of the visionary philosophy. The ISO project manager presented ISO as a solution to all of the companies problems: consequently, VW employees perceived ISO as TQM. The ISO project manager hired a consultant to guide VW through the main phases of implementation. According to an internal auditor, the project manager's plan for implementation included the following steps:

- Hiring a consultant
- Documenting the company's key processes
- Improving the company's business practices
- Selecting members for the ISO Steering Committee
- Getting management buy-in
- Rewriting the quality policy and manual
- Engaging the employees
- Ensuring that all elements of the quality model were met

- Selecting a registrar
- Conducting the pre-assessment audit
- Correcting the nonconformances noted during the pre-assessment audit
- Passing the registration audit

7.3.2 Goals

Visionary Widgets was required by its primary customer to achieve registration to ISO 9001 within one year. Because the employees would be doing the actual work for registration, upper management reportedly glorified ISO in presenting the implementation project. The project manager continually emphasized that ISO for VW was more than a model for documenting its business processes and assuring quality. She said, “It’s a way for us to improve the way we do business, eliminate all non-value-added steps, and engage all employees in the business” (1996). The majority of VW employees feel “the hype was just a tactic to motivate the worker bees” (1996).

According to a VW purchasing representative, “the project manager’s primary goal was to get noticed by management by attempting to transform the company, while upper management’s goal was to get registered in order to stay in business” (1997).

7.3.3 Benefits

The primary benefit realized by Visionary Widgets was achieving registration, which allowed the company to continue doing business with its primary customer. According to one of VW’s internal auditors, “this company had the potential to benefit tremendously from this process, but the project manager really let us down. Other than

registration, the main benefit was identifying areas that need to be improved” (1997). However, according to employees, “VW identified many areas that need improvement. but identifying problems is only the first step in resolving them—we [Visionary Widgets] haven’t progressed beyond the first step” (1997).

7.3.4 Problems

According to the employees at Visionary Widgets, everyone approached ISO enthusiastically when the company hired technical writers to facilitate the process mappings and generate the necessary documentation. Several departments within the company began creating new processes in areas where system gaps were identified, but within a few months, management no longer supported the project, and the project manager “intentionally misled the general population” (Internal Auditor, Visionary Widgets, 1997).

Visionary Widgets was approved for registration in December 1996 and was officially registered to ISO 9001 in March 1997; however, many of the employees report feeling that ISO was a disappointment. One employee assessed the situation as follows:

While the general population worked really hard to pick up the slack created by the project manager, the project manager took credit for achieving registration. and VW, in reality, achieved nothing more than registration. The real test will be maintaining all of the documentation generated during the process and maintaining the system. (Engineer, Visionary Widgets. 1996)

When asked what the main problems were during Visionary Widgets’ implementation process, one of the internal auditors replied: “The project manager didn’t lead the team. She did a poor job of communicating the big picture to the general

population, she failed to communicate the little picture to the documentation team, and the company could have done a better job training all levels” (1997).

7.3.5 Relationship between ISO Implementation and the Pre-Existing Quality Policy

The author spoke with several of the assemblers, technicians, and engineers at VW to discuss how the implementation effort reflected the company’s pre-existing quality policy. Surprisingly, they had unanimous responses. They expressed the following sentiments:

ISO is just another fad for this company. Like all of the other quality improvement projects, management hyped it up and dumped it in our laps. They’ll [management] promise us the world—and they expect us [the employees] to build it—but they never follow through with their commitment to give us the resources and support we need to finish what they start. (VW Respondents, 1996-97)

One of VW’s engineering directors condemned ISO as “a ludicrous facade,” and he questioned the company’s intentions in “misleading the general population” (1996). When the author asked how the employees were being misled, the engineering director replied, “I just don’t understand the point in asking our employees to break their backs for ISO, when in fact, the company doesn’t care about improving quality. There’s nothing admirable about this implementation; the president just wants to get certified” (1996).

7.4 Common Sense Widgets

7.4.1 Implementation Plan

A third company, called *Common Sense Widgets (CSW)*, incorporated elements of both the pragmatic and visionary philosophies in implementing ISO. Common Sense

Widgets aggressively pursued registration to ISO 9001 because it supplies products to other divisions of the company and is committed to continuously improving its overall quality. Members of the CSW task force gave themselves two years to accomplish the following goals of their ISO implementation plan:

- Teach the ISO 9000 Standards to all levels of personnel
- Assign responsibilities to all levels of personnel
- Audit all existing systems to determine exactly what is needed
- Visit several suppliers who are already registered to ISO 9001
- Meet with customers to discuss their needs and requirements
- Complete a full-system internal audit after all training is complete
- Convene the task force every month to assess the progress of individual departments
- Generate an “action list” from the results of the full-system audit
- Begin work detailed on the action list
- Review, update, and create the three levels of documentation required by ISO
- Select an accredited registrar that is certified by the Registrar Accreditation Board (RAB)
- Submit documentation to the selected registrar for review
- Hold the pre-assessment audit conducted by the registrar
- Correct all problems noted during the pre-assessment audit

- Complete the action list
- Schedule final assessment audit

7.4.2 Goals

Common Sense Widgets was determined to achieve registration by the end of 1993. According to the CSW task force, the company's primary goals were to provide a road map for continuous improvement for the rest of the division, enhance the company's credibility in the marketplace, and be recognized for its quality processes. The implementation practices that CSW followed are unique in many ways. The members of the task force designed a detailed plan, they all committed to it, and they abided by it; and the company spent an entire year educating its employees about ISO standards.

7.4.3 Benefits

According to the ISO project manager, the benefits derived for the business since ISO 9000 implementation are numerous. A human resources representative stated:

Our documented processes provide us with training tools and assure that our products will be consistent; the internal audit process keeps our procedures current and verifies conformance to the specs; and our systematic documentation has streamlined our process for retrieving information, which has provided a link for engineering change orders between the department and our customers. (1997)

7.4.4 Problems

The greatest challenge CSW faced during implementation was generating the work instructions and procedures the company needed to document in order to achieve registration. According to the quality manager, "We wanted to have consistent documentation throughout the company, and we ended up writing over 20 manuals;

getting all of the departments to follow the same format was a real bear, but we managed” (1997).

7.4.5 Relationship between ISO Implementation and the Pre-Existing Quality Policy

When asked what made implementation so successful, the quality manager replied: “We attribute our success to dedication to quality, management support, company-wide participation, and an incredible step-by-step plan that relied almost entirely on existing procedures and the expertise of our employees” (1997).

8. Conclusions

8.1 Ethical Implications of ISO Implementation

Based on the case studies of the three widget suppliers, the research conducted to study ethics and ISO 9000, and the overall review of the implementation efforts associated with achieving registration to ISO's quality models, the author found that there is indeed a relationship between a supplier's ISO implementation practices and its underlying *ethical* philosophy. Further, there is a significant correlation between a supplier's pre-existing quality system and ISO implementation.

If a supplier ignores ethical considerations in communicating with its own employees, as the executives and ISO manager of Visionary Widgets did in misrepresenting the project goals, what might that supplier do to gain the confidence of purchasers? If a supplier is already committed to quality, ISO standards are likely to enhance the existing quality foundation. This was the case for Pragmatic Widgets and Common Sense Widgets. However, if a supplier does not have an established quality policy, there is no guarantee that ISO will provide the foundation necessary to improve a supplier's business practices to the extent that quality is significantly affected. The ISO standards provide a template for an effective quality assurance system, but ISO's success depends largely upon how a supplier embraces, implements, and effectively maintains the ISO standards.

Pragmatic Widgets, Visionary Widgets, and Common Sense Widgets are similar types of businesses, yet they all chose different implementation strategies for ISO 9001

registration. Through examining the methods followed by each supplier to implement ISO's quality assurance model, the author discovered important connections between the implementation plans, quality policies, and ethical philosophies of each of the three companies. All three of the suppliers achieved registration to ISO 9001, so it is arguable that none of the companies *failed*. However, does achieving registration necessarily indicate that a supplier's implementation plan was a success?

Pragmatic Widgets was realistic about its approach to ISO, and the company was successful. PW accomplished exactly what it set out to do: achieve registration. PW did not anticipate or desire to make any major changes to the company's quality policy or processes because the entire organization was already committed to quality. The employees did not report having any misconceptions about ISO 9001, the implementation plan, or the ultimate goals of the company. The project manager felt he had management's complete support, which is crucial to successful and beneficial implementation. A PW staff engineer attributes the company's successful implementation to "one fundamental factor. We knew exactly what to expect going into this project. so everyone was moving in the same direction. That was a huge advantage" (1997).

When asked if he believes there is any relationship between a company's ethical philosophy, quality policy, and ISO implementation practice, the R&D manager of PW replied:

Quality-oriented companies are committed to doing things right the first time, from concept to product design to customer service. They "live" a higher quality standard in all their operations and would be more likely to implement more than the minimum requirements laid out in ISO 9000. A quality-oriented company is

definitely going to prove to be more ethical than companies who could care less about quality. Those companies who are just implementing ISO to continue business in Europe or to meet a customer's quality requirements aren't really delivering the best product or services . . . they're operating to "get by" as opposed to continuous improvement. They would be likely to just meet ISO requirements and have spotty performance with a high level of nonconformity until their audit is due. (1997)

Visionary Widgets, on the other hand, was not realistic in its approach to ISO.

This supplier's first mistake was trying to accomplish too many things through ISO implementation. The project manager presented ISO 9001 as a "cure-all" for everything from customer complaints to lack of morale among employees (Customer Service Representative, Visionary Widgets, 1996). One of the main problems associated with ISO is that many suppliers view it as a total quality management (TQM) system, and those organizations make the following common mistakes:

- Trying to make ISO accomplish something it was not designed to do
- Not planning enough time
- Failing to make quality a priority
- Making quality a project, not a continuous process
- Expecting immediate customer satisfaction and financial results
- Not involving all levels of personnel, or all departments
- Failing to make training a priority
- Not focusing on measurements

As the author emphasizes above (in section 5), ISO is a model for quality assurance, not a system for total quality management.

When asked if they perceived any correlation between the company's implementation practice, its quality policy, and the underlying ethical philosophy, the employees of Visionary Widgets gave a number of similar responses. The most poignant opinion communicated was, "VW has a lot of good, honest employees, but upper management is about as ethical as a stereotypical used-car salesman, and I think their actions throughout this ISO implementation process make that very clear" (Receiving Inspection Representative, Visionary Widgets, 1996).

The employees of VW reported having multiple misconceptions about the project goals, lack of management support, and considerable doubts about the quality policy.

According to one internal auditor:

The Quality Policy needed to be re-written to meet ISO because the company really doesn't have a quality policy anymore. The overall feeling is that it's QA's [Quality Assurance's] document, and it doesn't mean much to the general population. However, many attempts were made during ISO implementation to convince all employees that they own it [the Quality Policy] too. (1997)

The frustration and dissatisfaction that the Visionary Widget employees expressed about the conduct of their executives reinforce the thesis that an inherent relationship exists between quality and ethics. If a supplier knowingly misleads its own employees to gain support for a project, particularly a quality assurance project, what else might that supplier do to gain the confidence of purchasers?

It is disturbing that Visionary Widgets was approved for registration. The majority of VW respondents believe that management compromised the ethics of the company by misrepresenting the intended goal for ISO. According to an assembler: "The

company created a quality policy for ISO, but we haven't been a quality-minded company for a long time; it's sad" (1996).

Based on the overwhelming disapproval from the employees of Visionary Widgets, the registrar should have encountered and investigated the employees' concerns during the registration audit. When ethics and quality are intrinsically related, how valid is ISO as an effective quality standard if a company—*whose ethics contradict its quality policy*— can achieve registration?

As this research shows, the ISO project manager and VW's executive staff acted unethically and irresponsibly in leading the rest of the company to believe that ISO was a legitimate attempt to turn the business around. If purchasers were aware of the information presented in this case study, they might have serious reservations about the quality of VW's products and the ethics practiced by VW's executives. "If this company doesn't get it together soon, no one will want to do business with us; they'll all go elsewhere," said an employee from the Facilities Department.

Common Sense Widgets is exactly the kind of supplier determined to increase its customer base. CSW clearly invested a great deal of time and effort in preparing for ISO registration. Like Pragmatic Widgets, CSW designed a plan and remained committed to it. Unlike Visionary Widgets, CSW did not envision ISO as a "cure-all." In fact, one of the reasons CSW had such tremendous success with ISO implementation is that the company did not plan to make any changes until it had identified and verified that improvements were warranted. "We did our best to do our homework," commented a

CSW task force member. “We spent an entire year teaching the ISO 9000 standards and assigning responsibilities to all levels of [CSW] personnel, and the team visited several suppliers who had already gone through the process and achieved registration.”

When asked if she saw any correlation between the company’s implementation practices, its quality policy, and the underlying ethical philosophy, a member of the CSW task force responded:

Absolutely. In fact one of the reasons we pursued registration to ISO 9001 was to have a stamp of approval from a quality assurance standard to allow ourselves and our employees to be recognized for the quality we promote. If a supplier isn’t ethical and doesn’t really care about its customers, God knows there are ways to cut corners, and our people just don’t believe in doing that. We have a great deal of pride in the integrity of our products and services. so as far as I’m concerned. quality and ethics go hand in hand. (1997)

Clearly, a company already committed to quality will successfully achieve the full potential benefit of ISO implementation.

8.2 The Validity of ISO as an Effective Quality Assurance Model

One important question related to ISO implementation is this: Has any supplier ever had its registration suspended or revoked? Unfortunately, the literature on ISO does not offer any conclusive information to sufficiently address this issue, and American National Standards Institute (ANSI) representatives did not have an answer. If a supplier cannot and does not have its registration revoked for failure to comply with the standards. how does ISO function as an effective quality assurance model?

Of the 60 people interviewed for the three case studies presented in this paper, 54 acknowledged that this is an important question and a serious issue. Surprisingly, 48 of

those 54 people had never considered the matter. The Registration Accreditation Board (RAB), located in Milwaukee, Wisconsin, certifies the registrars who conduct ISO Registration Audits. When asked about registration revocations, an RAB representative responded as follows: “You will probably not find the answer to that question anywhere.” He explained that “a supplier’s registration can be revoked, but that would not be beneficial.” [This means that a supplier who receives a nonconformance is given every opportunity to implement corrective action, and it would not be in the supplier’s best interest to refuse to correct nonconformances.] “It is extremely rare. The accreditation boards have a staged process for escalating nonconformances, and so do registrars. First, a nonconformance will be cited, and a corrective action will be issued. If a supplier fails to implement the corrective action adequately, its registration can be suspended” (RAB Representative, 1997).

When asked if anyone notified purchasers when a supplier’s registration is suspended, the RAB representative indicated that suspensions are not publicized. When asked if there is any way for a purchaser to find out if a supplier had ever had its registration suspended or revoked, perhaps through some organization similar to the Better Business Bureau, the RAB representative said that there is no way for purchasers to find out. Most customers would be disturbed by that fact. Patients who are going to have surgery want to know if their surgeons have ever been confronted with a malpractice suit. Similarly, when purchasers review suppliers’ qualifications, they want a way to distinguish the bad from the good, or the best from the above average (Harrington 1995).

The RAB representative did emphasize that suspensions are severe and can lead to revocation. He explained, “A supplier or registrar who has its registration suspended is limited in its abilities, rights, and privileges.”

Further research on the subject of registration revocations indicated that revocations, when they do occur, are usually voluntary. According to Terry Unsworth, Director of Operations for Excel Partnership, Inc., the two known cases of revocation “made a decision to discontinue [their registration] due to costs of registration” (1997). This is entirely different from a company having its registration revoked for failure to comply with ISO standards. Voluntary withdrawal from the process is simply that.

A thriving industry of auditors, consultants, and registrars has grown out of the epidemic of ISO registrations, which leads to another important question that needs to be addressed: Is ISO a legitimate quality standard, or is it becoming another profit-driven bureaucracy? Frank Drazan is author of the *Printing Journal* article “The ISO 9000 Program: A quality-control solution or problem?” He warns that ISO is just another mania (June 1997). Drazan writes:

After ISO 9000 has died, like all of its predecessors, we will resume our pragmatic approach toward making a profit, knowing full well that quality will be best measured by customer satisfaction, not by an ISO certificate. And progress will continue technologically, not administratively. ISO 9000: This too shall pass. Thank God! (June 1997, 5)

Every company has a right to question whether ISO 9000 is only another quality fad that will not have any lasting benefit. While ISO 9000 marks significant progress in business, it has created its own industry, and that industry is making phenomenal profits

from the growing trend to register American businesses to ISO 9000 (Kinni 15). Each supplier considering registration should examine the potential benefits of ISO and how those benefits will apply to its particular business. Furthermore, suppliers should be very selective in choosing a registrar. Companies should select a registrar accredited by a national registration body that is recognized by the countries in which the company does business. As technical writer Catherine Nance advises in her *Intercom* article, "Selecting a Registrar for ISO Certification," suppliers should ". . . treat [registrars] as you would any other contractor. Interview several, ask for auditors' resumes, check out references, verify credentials, and look at some previous work" (May 1997, 3).

Likewise, purchasers should use caution in choosing a registered supplier. ISO registration serves a purpose similar to professional accreditation or certification. Given two professionals, one with a professional certificate or credential and one without, all other aspects being equal, a purchaser or consumer will generally select the certified professional. However, professional certification is not a guarantee that the professional will not make a mistake or even that the certified professional will always provide a better service than the non-certified individual (Harrington 174). Purchasers should ask for references from registered suppliers and obtain as much information as possible about the ISO implementation process of the supplier being considered. The implementation process is a business practice in itself, and while it is not a process that a company is required to document for ISO registration, it can reveal significant information about a company's underlying ethical philosophy and quality policy. Perhaps the ISO standards

should be expanded to include a requirement for documenting a company's ISO implementation system.

Quality assurance models are only as reliable as the people who implement them. Because of the multitude of organizations that are pursuing ISO registration to stay competitive, every employee and potential customer must share the responsibility of ensuring that neither ethics, nor quality, is compromised in the pursuit for ISO registration. As ironic as it may seem, some organizations will sink to unethical levels to gain approval for ISO registration, and registrars, for whatever reason, do not always catch these contradictions to the primary components of quality—ethical conduct, degree of excellence, and the commitment to do what is right. As ISO Consultant Terry Unsworth emphasized, “ISO 9000 is a legitimate quality standard provided that it is used and implemented correctly, and provided that it is supported by effective internal and external audits. If a company ‘BSs’ its way into registration, then from a customer and employee point of view, this is not good business ethics” (ISO Consultant, 1997).

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Appendix: Survey Tally and Summary of Responses

The following section contains a tally *summarizing* the survey responses received from the three companies evaluated in the case studies. All references to the company's actual names and the names of individual respondents have been omitted to preserve their anonymity.

ISO Survey

The results of this survey will be used as supportive information for a master's thesis on the ethical implications of ISO implementation. Specifically, the author is interested in learning about the different approaches in implementing ISO standards and how a company's chosen implementation strategy and actions relate to its pre-existing quality policy. The author is also interested in applying these results to a broader examination of ISO itself.

Please answer the following questions to the best of your ability. Thank you for your time and participation.

1. How are/were you involved with ISO? (Please check all that apply.)

- ☐ External auditor
- ☐ Internal auditor
- ☐ Consultant
- ☐ Employee
- ☐ Project manager
- ☐ Quality manager
- ☐ Registrar
- ☐ Other (please specify)

Of the 60 people surveyed, 2 percent were external auditors, 10 percent were internal auditors, 6 percent were consultants, 70 percent were employees, 5 percent were project managers, 5 percent were quality managers. and 2 percent were registrars.

2. Which ISO model did your company implement?

☐ ISO 9001

☐ ISO 9002

☐ ISO 9003

All three companies presented in this study are registered to ISO 9001.

3. What were the key factors that motivated your company to seek registration?

Pragmatic Widgets and Visionary Widgets pursued registration due to customer requirements, whereas Common Sense Widgets pursued registration to gain recognition for its commitment to continuous quality improvement.

4. How did your company plan to implement ISO?

The three companies had the following elements in common for planning implementation:

- *Getting management support for the project*
- *Assigning a project manager, steering team, and audit team*
- *Assessing current practices and documentation*
- *Providing ISO training to personnel*
- *Selecting a registrar*
- *Documenting procedures*

- *Conducting a pre-assessment audit*
- *Scheduling the registration audit*

5. How long did the implementation process take?

Pragmatic Widgets conducted 6 months of preliminary research and took an additional 14 months for implementation; Visionary Widgets was officially registered within 15 months; and Common Sense Widgets planned a full 2 years for research, implementation, and registration.

6. What were the main steps involved in the actual implementation process your company employed, and how did this practice differ from the original plan?

The three companies had the following elements in common for actual implementation:

- *Assigning a project manager, steering team, and audit team*
- *Assessing current practices and documentation*
- *Selecting a registrar*
- *Documenting procedures*
- *Conducting a pre-assessment audit*
- *Scheduling the registration audit*

7. Discuss how your company's implementation practice relates to, or reflects, the company's pre-existing quality policy and underlying ethical philosophy.

When asked how the company's approach to ISO reflects the quality policy that Pragmatic Widgets had before ISO, the R&D manager responded:

I never really thought about such a relationship on a conscious level, but I always believed that the procedures we followed before ISO, which did not change much as a result of implementation, were good, solid procedures that reflect the company's dedication to manufacturing quality products. So, yeah, there is a relationship there. If you're above board with your customers [purchasers] and follow your documented procedures, then the ISO audits will verify that. (1997)

The author spoke with several of the assemblers, technicians, and engineers at VW to discuss how the implementation effort reflected the company's pre-existing quality policy. Surprisingly, they had unanimous responses. They expressed the following sentiments:

ISO is just another fad for this company. Like all of the other quality improvement projects, management hyped it up and dumped it in our laps. They'll [management] promise us the world—and they expect us [the employees] to build it—but they never follow through with their commitment to give us the resources and support we need to finish what they start. (VW Respondents, 1996-97)

When asked what made CSW's implementation so successful, the quality manager replied: *"We attribute our success to dedication to quality, management support, company-wide participation, and an incredible step-by-step plan that relied almost entirely on existing procedures and the expertise of our employees" (1997).*

8. What did your company hope to accomplish with ISO; what were the company's goals with regard to ISO implementation?

The main goal of Pragmatic Widgets was ISO registration; the main goal of Visionary Widgets was purported to be improving the companies business practices, when in reality management only wanted to get registered: and Common Sense

Widgets hoped to establish a precedent and earn recognition for its commitment to continuous quality improvement.

9. What benefits has your company experienced as a result of ISO registration?

In addition to registration, Pragmatic Widgets has better training materials, streamlined operations, and worldwide recognition as a result of ISO registration. Visionary Widgets achieved registration and identified areas that need improvement. Common Sense Widgets has gained training tools, an internal audit process, streamlined procedures, and systematic documentation.

10. What are the pros and cons of the implementation strategy your company chose to employ? Please discuss anything you feel is relevant: effects on workflow, morale, financial impacts, etc.

Pragmatic Widgets kept the process simple, but had difficulty maintaining current documentation. Visionary Widgets inspired its employees to transform the company culture and business practices, but failed to support and empower them to do so. Common Sense Widgets had a great team and tremendous support from management, but the company was challenged by getting all of the departments to follow a consistent format for the documentation they were creating.

11. What could your company have done differently, if anything, to improve the process?

If the three companies had to implement ISO again, Pragmatic Widgets would create a systematic revision process to ensure that only current documentation is

used. Visionary Widgets would have insisted on management support and a clear definition of the company's goals. Common Sense Widgets would create a style guide for manuals to keep documentation formatting consistent.

12. How subjective are the decisions that determine whether or not a company is approved? Please explain.

All three companies reported that the third-party auditors, who are responsible for conducting the final registration audit, are very subjective. Decisions made during the audit are based on the auditors' expertise, personality, and familiarity with the employees to whom they are assigned.

13. Once a company is approved for registration, how does it maintain that registration? Please discuss what happens after registration.

Through ongoing internal and external audits and the company's commitment to quality.

14. Has any company ever had its registration revoked? If yes, please explain why. If no, how does ISO function as an effective quality standard if no one ever gets decertified?

Ninety percent of those surveyed acknowledged that this is an important issue and would be interested in knowing the answer, though 88 percent had never considered the matter. Less than 3 percent of those surveyed knew of any company that had its registration revoked. Of the two known cases of revocation, both were voluntary.

15. What is the guarantee to customers that a company will continue to improve or maintain a specified standard of quality after that company has been approved for ISO registration?

There is no guarantee.

16. What conclusions can/should one draw from the way a company chooses to implement ISO and maintain registration?

Ten percent of those surveyed don't believe any conclusions can be drawn from a company's implementation practice, 63 percent believe the implementation process reflects the company's culture and commitment to quality, 22 percent believe a company's implementation practice can indicate the type of management a company has and how committed those managers are to ISO, and 5 percent aren't sure.

17. With the booming and lucrative industry of auditors, consultants, and registrars, is ISO really a legitimate quality standard, or is it becoming another profit-driven bureaucracy?

Forty-nine percent of those surveyed believe ISO is an effective quality standard when properly implemented and effectively maintained, 28 percent believe it is or is becoming a profit-driven bureaucracy, 18 percent believe it depends on the company's commitment to quality, and 5 percent aren't sure.

18. What advice would you give to a company that is just beginning to pursue registration?

One hundred percent of those surveyed reported that ensuring management's full support before implementation is the key to a successful ISO project.