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"Selected Aspects of Compensation in Context of TQM:
the case of team awards and the union's involvement in the
implementation of TQM"

par

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the case of teams awards and the union's involvement in the
implementation of TQM"

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SUMMARY

This study was initially undertaken pursuant to a mandate from Bell Canada, who wanted a team of researchers to examine the state of the art of team awards and profit sharing in the context of Total Quality Management. (TQM). The objective was to develop a "best practices" model that would enable them to see if Total Quality Management (TQM) was feasible in a large service firm that was unionized and had some experience with compensation schemes. In order to respond to Bell Canada's needs, 17 firms were chosen that fell within the specific parameters outlined.

The methodology utilized to complete the study was a literature review combined with a semi-structured telephone interview using a questionnaire.

For the purposes of this study 13 more companies were added to the sample. The type of rewards and recognition that are best suited for TQM will first be discussed, and empirical data will be analyzed. A basic research question was: will the use of compensation programs in the context of TQM increase organizational success? (i.e. by compensation programs reference is made to either profit sharing, gainsharing, teams awards or individual incentives).

In the 1990's we are learning that highly flexible or autonomous teams in organizations are the best vehicle for delivering enhanced quality and service, and therefore, represent the true application of Total Quality. Consequently, many organizations have chosen to use teams in the context of TQM in order to increase organizational success.

~~Most quality gurus would agree that any Total Quality program is destined to~~

Most quality gurus would agree that any Total Quality program is destined to fail, if training is not a focal point. Thus a review of the literature pertaining to training is provided in this work. An emerging conclusion is that a training program that includes both quality and technical training must be given to all employees in order for a quality plan to succeed.

An important research question for this study was whether Total Quality could be implemented in a unionized environment. One of the study's conclusions is that the problem does not seem to stem from whether the firm is unionized or not, but rather, how much management involves the union and honestly discloses the firm's objectives; union acceptance and involvement from the initial planning stages to the implementation phase seems to be an essential precursor to organizational success.

In summary, this work combines qualitative and quantitative methods to address the questions listed above. Thirty firms where TQM was implemented were examined through data collected via a structured interview. In a second phase, the interview data were codified to enable some limited statistical analyses.

All in all, results show that:

- 1) The size of the reward and the use of recognition plans as part of the compensation scheme are a contributing factor to organizational success.

- 2) A high level of top management support and firm involvement were important elements in maintaining a TQM culture and, contributed to increased firm performance.
- 3) Training was critical for achieving organizational success
- 4) Lastly, there had to be a high level of information sharing in order for the firm to succeed with their total quality plan.

Any firm that embarks upon a TQM journey must be prepared to revamp their organizational culture and adopt a mission that focuses on: a compensation program that includes both rewards and recognition, strong emphasis on training, information sharing with employees, cooperation between labour and management, and commitment on the part of top executives to the TQM program.

RÉSUMÉ

Cette étude a été entreprise suite à un mandat de Bell Canada qui voulait qu'une équipe de chercheurs étudie les programmes de reconnaissance d'équipes, et de partage de profit, et ce, dans le contexte de la qualité totale. L'objectif était de créer un modèle qui était non seulement le plus fréquemment utilisé par de grosses entreprises de service mais, qui étaient aussi syndiquées et avaient de l'expérience avec de tels programmes de rémunération adaptés dans un environnement de qualité totale. Pour répondre à cette étude, nous avons choisi 17 entreprises qui se retrouvaient parmi les critères établis.

La méthodologie utilisée pour effectuer ce mandat consistait ^{en} d'une revue de la littérature et, une entrevue téléphonique par le biais d'un questionnaire.

Pour les fins de cette étude, 13 compagnies se sont rajoutées à l'étude. Les programmes de rémunération et les prix de reconnaissance les plus appropriés pour la qualité totale seront discutés par des analyses empiriques.

Une des questions fondamentales de l'étude était: est-ce que l'utilisation des programmes de reconnaissance dans le contexte de la qualité totale augmentera le succès de l'organisme? Il est sous-entendu que les programmes de rémunération incluent: le programme de partage de profit, le partage des gains, prix d'équipes et, les prix individuels. Pour chacun des programmes, la définition, la logique, l'utilisation du plan opérationnellement, ses limitations et les conditions les plus favorables et, le

programme dans le contexte de la qualité totale, serait étudié.

De plus, les prix de reconnaissance et leur effet seraient étudiés comme aspect additionnel et son effet sur la firme.

Dans les années 90, nous apprenons que des équipes jouent un rôle clef dans le contexte de la qualité totale. Les équipes qu'on retrouve le plus souvent sont des équipes parallèles, des équipes de projet et, des équipes semi-autonomes. On retrouve des équipes semi-autonomes dans la plupart des entreprises interviewées. Souvent les équipes autonomes accomplissent des tâches qui étaient réservées aux personnes cadres tel: le recrutement et l'embauche des membres de l'équipe, la formation et le développement, et dans bien des cas, ^{ou} prendre des mesures disciplinaires appropriées pour les membres de l'équipe. On dit que les équipes ^{elles} représentent l'application essentielle de la qualité totale parce qu'elles permettent à l'entreprise de répondre d'une façon rapide et concise aux exigences du marché.

La formation des équipes consiste ^{de} de trois étapes: la formation de sensibilisation, les relations interpersonnelles (comment fonctionner dans un environnement d'équipe) et, la formation technique qui permet aux membres d'acquérir les outils et les habilités nécessaires.

Dans n'importe quel contexte, la formation est un composant significatif au succès pour les besoins du recyclage, pour les employés actuels et pour les nouveaux employés qui doivent s'intégrer à l'entreprise ou pour un nouvel emploi. Dans le contexte de la qualité totale, la formation est perçue comme un élément principal au succès de la firme.

Une analyse de la formation de la qualité totale et la formation technique doivent être offerts aux employés afin qu'un plan de qualité totale puisse bien s'épanouir. Parmi les phases de formation qui doivent être données aux employés nous retrouvons: l'évaluation des besoins, la formation de qualité et des équipes, le rôle des groupes et l'organisation des équipes, la formation des représentants de ventes, le contrôle de processus et l'amélioration et, des méthodes quantitatives.

Les implications de la formation sont la communication et le partage d'informations, les programmes de rémunération et reconnaissance et, une formation continue pour les tâches actuelles.

Une question importante pour les fins de cette étude était: est-ce que la qualité totale peut être implantée dans un milieu syndiqué?

A première vue, le syndicat est perçu comme étant un élément de résistance aux changements qui seront imposés par l'employeur. Surtout lorsque les changements proposés pourront directement ou indirectement affecter les membres du syndicat avec possiblement des coupures de personnel et l'abolition de certains postes. Par contre, la qualité totale n'équivaut pas toujours de coupures mais aussi, une nouvelle façon de gérer plus efficacement l'entreprise.

Les résultats démontrent que la résistance est plus flagrante lorsque l'employeur met le syndicat à l'écart et ne consulte pas les membres en apportant des changements. La consultation et l'implication du syndicat dans tous les volets de la qualité sont des aspects importants que toute entreprise devrait entreprendre. L'entreprise doit faire connaître ses objectifs et ses intentions quand à l'implantation d'un tel programme.

L'implication du syndicat, du début jusqu'à l'implantation est cruciale, et en étant des membres très actifs, les chances de réussite sont encore plus fortes. Même si l'entreprise entreprend les étapes nécessaires, il n'y a cependant aucune garantie.

En bref, cette étude est une combinaison des méthodes qualitatives et quantitatives pour pouvoir répondre aux questions. L'étude comprend 30 entreprises qui ont implanté ce programme sous une forme ou une autre. Les informations ont été recueillies par un questionnaire qualitative et par la suite, codifiées afin de

permettre d'effectuer quelques analyses statistiques limitées.

Les résultats démontrent que:

- 1) Pour les programmes de rémunération, l'importance du prix décerné et l'utilisation des programmes de reconnaissance, ont un impact important au succès de l'organisation.
- 2) L'appui des cadres supérieurs et le niveau d'implication de l'entreprise sont des critères indispensables qui contribuent au succès du programme.
- 3) La formation contribue au succès de l'entreprise.
- 4) La communication et le partage d'informations entre les cadres et les employés sont indispensables afin de permettre d'accroître ses chances de réussite dans le contexte de la qualité totale.

Une compagnie qui entreprend une gestion axée sur la qualité doit posséder des principes fondamentaux qui contribuent au succès du programme soit un programme de rémunération qui comporte la reconnaissance et les prix monétaires, une communication constante et fréquente entre tous les niveaux du personnel, la formation, un milieu qui permet à l'employeur et le syndicat d'avoir une étroite relation

et s'entendre mutuellement sur le programme de la qualité et aussi à la façon d'administrer et sans oublier, l'appui moral et continué de la part des cadres supérieurs.

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Introduction

The move to embrace Total Quality Management has become a top priority for an overwhelming number of businesses. Unlike some business fads that have come and gone during the 1970's and 1980's, Total Quality Management is profoundly reshaping the way that companies regard their customers, their processes and their employees (Harrison, 1992). However, it is difficult to predict at this point whether this will become another passing fad that has been oversold, such as management by objectives, (MBO) in the 1960's and 1970's or a "culture transforming approach" that will change the way we do business throughout the entire organization (Port, 1991). Properly implemented, Total Quality Management (TQM) has the power to create a sustainable competitive advantage.

The central concept of TQM is that all organizations have both internal and external customers. In order for firms to succeed, they must provide both sets of customers (internal and external), with products and services that fully satisfy their needs.

In manufacturing firms, quality is usually based on conformance to specifications and targets. Specifications are targets that are determined by the designers or engineers of the product. Targets are the ideal values for which products strive. Tolerances can be defined as acceptable deviations from these ideal values, (Dean, 1994). "Lack of defects" has been used in management for many years as an indication of "conformance to specifications or targets" (Dean 1994). What type of quality dimensions are used for manufacturing firms: performance, features of the product, reliability and durability, serviceability, the aesthetics of the product, the

perceived quality and conformance (Garvin, 1984, See Table 1). Achieving quality means exceeding customer specifications and providing that extra something that will separate you from the competition. In the past, this type of analogy usually applied to manufacturing firms and was adapted in some service organizations. Service firms are using the following criteria: how long a customer waits to be served, the time it takes to complete the transaction, how well the service was performed. Were the employees courteous, was the service easily accessible, is there consistency, etc... (See Table 2 borrowed from Berry, et al. 1988). These specific type of criteria can be measured through customer surveys on satisfaction and other operational metrics such as decrease in complaints and return visits (Berry, et al., 1988).

Maintaining a Total Quality Management requires recognizing and rewarding continuous quality improvement and customer service. Given the pivotal role of the reward system in signalling to employees what the organization values, by implication pay can be used to support an organizational culture that is customer oriented (Balkin, 1992).

For the purposes of this study, the type of rewards and recognition that are best suited to the Total Quality Management culture will be discussed coupled with the notion of whether compensation programs have a positive impact on firm performance and lead to organizational success.

There are a variety of monetary programs that can be used, but for the purposes of this study, the focus will be on: profit-sharing, gainsharing, individual and team awards or group incentives, in the context of Total Quality Management. How

Table 1

QUALITY DIMENSIONS IN MANUFACTURING

- **Performance:** a product's primary operating characteristics.
- **Features:** the "bells and whistles" of a product.
- **Reliability:** the probability of a product's surviving over a specified period of time under stated conditions of use.
- **Conformance:** the degree to which physical and performance characteristics of a product match preestablished standards.
- **Durability:** the amount of use one gets from a product before it physically deteriorates or until replacement is preferable.
- **Serviceability:** the ability to repair a product quickly and easily.
- **Aesthetics:** how a product looks, feels, sounds, tastes, or smells.
- **Perceived quality:** subjective assessment resulting from image advertising, or brand names (Garvin, 1984).

Table 2

QUALITY DIMENSIONS IN SERVICE FIRMS

- **Time:** How much time must a customer wait?
- **Timeliness:** Will a service be performed when promised?
- **Completeness:** Are all items in the order included?
- **Courtesy:** Do front line employees greet each customer cheerfully?
- **Consistency:** Are services delivered in the same fashion for every customer and every time for the same customer?
- **Accessibility and convenience:** Is the service easy to obtain?
- **Accuracy:** Is the service performed right the first time?
- **Responsiveness:** Can service personnel react quickly and resolve unexpected problems?

each compensation program can be used in conjunction with Total Quality will be discussed as well as the operational implications (See Table 3). Depending on the type of firm, the number of employees, the tasks they have in common, one specific program or a combination of programs, could be the best solution. Research stipulates that performance that is strictly rewarded through monetary incentives, could be detrimental to the objectives of the firm (Deci, 1975). Therefore, whether there should be both monetary and non-monetary rewards (recognition) will also be discussed.

In addition to rewards, firms are also developing teams. The literature indicates that more and more organizations are looking not only to develop some type of team but also, empower teams to take over several functions that were once reserved for management personnel (Johnson, 1993). Some teams not only perform the basic work of the organization but also hire, train and in some cases, take disciplinary or corrective action against team members.

The Total Quality Management philosophy recognizes the interdependence of various parts of the organization and uses teams as a way to coordinate work. Total Quality Management organizations recognize that the potential contributions of teams are much greater than in traditional organizations (Johnson, 1993).

Today's competitive environment demands that businesses be flexible, and react quickly to changes in customer demands (Schilder, 1992). Quick, adaptive teams are proving to be the best response to an unpredictable business environment. Consequently, training plays a major role in contributing to TQM success. Issues such as who provides the training (an internal or external consultant), how involved the firm

TABLE 3

WHAT TYPES OF PROGRAMS ARE BEING TRIED IN THE CONTEXT OF TQM

TQM----->	PROFIT SHARING
TQM----->	GAINSHARING
TQM----->	TEAM BASED INCENTIVES
TQM----->	INDIVIDUAL BASED INCENTIVES

SOURCE: CONTINGENT/ VARIABLE INCENTIVE DESIGN IN A TQM CONTEXT.
(PMA SEMINAR)

was in training, might have a detrimental effect on TQM success. As this study will suggest, a high level of firm involvement in training leads to increased organizational performance in a total quality environment.

Lastly, whether TQ can be implemented in a unionized environment is an essential component of this study. In today's fiercely competitive environment, firms are always looking to decrease costs. When firms introduce quality initiatives, unions are apprehensive and believe that TQ is a mere disguise to lay-offs and/or attrition. Therefore, it is essential that firms involve unions and make them aware of organizational objectives. Employees must understand that in order to remain competitive in the marketplace, there have to be changes in the way we do business. Therefore, how do organizations get unions to accept TQ in order to successfully implement quality initiatives in a unionized setting? In addition, will unions object to the use of certain types of compensation programs more than others. For example, will a union object more to individual and/or team incentives more than a profit sharing and/or gainsharing plan?

Total Quality Management (TQM) has allowed some firms to distinguish themselves from the competition while others, have adopted TQM as a survival strategy that has allowed them to fight off the competition. The varying degrees of success seem to vary due to several factors: whether TQM is a structured corporate strategy that creates an organizational vision focused on quality and the end-users of their products and services; how involved the firm and top management are in the program - do they openly and earnestly believe in the program; whether the firm

invests time and money in an extensive training program; the development of suitable teams with varying degrees of autonomy and when applicable, a consultative and cooperative relationship with union members in order to ensure the success of the program. The results of this study do not purport to guarantee success if these elements are present but rather, provide guidelines that may act as indicators of increasing organizational performance.

Chapter 1: Historical Evolution of Quality

The globalization of markets has brought unprecedented competition to all North American organizations. North America's most fierce competitors - notably the Japanese and Pacific Rim nations are challenging us now, not so much with better science or technology, but in the way they organize and manage their work (Talley, 1992). For the past several decades, they have been able to deliver higher quality products that are less costly to produce, exceed customer expectations or, promise better service. Our inability to keep up with the competition is partly due to the way we viewed quality in the past.

In order to understand why quality has become so omnipresent in the last two decades, a chronology of the evolution of quality from the Mass Assembly to the Malcolm Baldrige criteria, will be discussed.

1.1 Frederic Taylor - Time and Motion Study

With the dawn of the Mass Assembly in the 20th century, "Scientific Management or "time-motion" productivity began to shape what is today known as the Age of Modern Manufacturing. In essence, the concept as perfected by Frederick Taylor and Frank Gilbreth, advocated that all business behaviour was intrinsically perfectible through the application of testable work methods. However, this theory proved to be less than perfect as too many mismade parts started showing up at the end of the assembly line (Ebel, 1992). As a result, many firms had a significant

decrease in sales and customer satisfaction. Companies were perceived as being unreliable because they couldn't produce quality products.

1.2 - G.S. Radford and Inspection

Inspection was seen as a means of eliminating waste and controlling costs. However, it was not foolproof. In 1931, Shewhart, brought forth the notion of SPC (Statistical Process Control). The objective of SPC was to devise techniques that would provide uniformity and some element of standardization (Soin, 1993). Once again however, it was impossible to achieve 100 percent conformance to exact manufacturing specifications.

The challenge of quality is to control variability between like things so that they fall within acceptable limits. "SPC does this by mathematically determining acceptable levels of variation" (Soin, 1993). The advance of SPC at the time was the element of control because it gave workers on the shop floor the ability to control variations and do whatever was necessary to control those variations.

1.3 - Sampling

Harold Dodge and Harry Romig devised what is today known as "sampling techniques" whereby representative samples measure the level of defects for the manufactured items (Hart and Bogan, 1992). SPC and sampling helped pave the way for the renowned SPC guru, **W. Edwards Deming**.

1.3.1 - W. Edwards Deming

Deming's philosophy is based on improving products and services by reducing uncertainty and variability in the design and manufacturing processes. In Deming's view, variation is the chief culprit of poor quality. He uses various programs to measure variations in quality. There are Deming's fourteen points which are a broad set of simple, quality principles, the "Seven Deadly Diseases" which are common obstacles to improved quality and, the PDCA (Plan, Do, Check, Act) cycle, a systematic approach to problem solving (Deming, 1982).

1.4 - American Society for Quality Control (ASQC)

In 1945, the ASQC (American Society for Quality Control) was established (Cound, 1992). This group attempted to legitimize quality control as part of an individual science. However, quality control lacked legitimacy vis-a-vis corporate-wide authority.

1.5 - Juran Era

The 1950's came to be known as the "Juran Era". According to Juran (1980), control should not be seen as an expense but as a long-term investment in profitability. He, like Deming, concluded that we faced a major crisis due to the loss of sales to foreign competition and the huge cost of poor quality. Juran's programs are designed to fit into a company's strategic business plan with minimal risk of rejection. Juran views the pursuit of quality at two levels: the mission of the firm as

a whole to achieve high product quality, and the mission of each individual department to achieve high production quality. There is a never-ending cycle of activity that includes marketing research and product development, the design and planning for manufactures, purchasing and process control, inspection and testing, followed by customer feedback. Juran also feels that senior management support must play a critical role. Juran focuses on three major aspects: (1) Quality planning - the process for preparing to meet quality goals, (2) quality control - the process for meeting quality goals during operations, and (3) quality improvement - the process for breaking through the unprecedented levels of performance (Juran, 1980).

1.6 - Felgenbaum

Felgenbaum, who was a proponent of total quality control, believed it was essential to involve everyone in the entire process (Cound, 1992). This included both internal (employees) and external (clients) participants. This lead to the concept of "zero defects" or "conformance to requirements" as popularized by Philip Crosby.

1.7 - Philip Crosby

The essence of Crosby's quality philosophy is what he calls the " Absolutes of Quality Management and the Basic Elements of Improvement". For Crosby (1979), quality means conformance to requirements, not elegance. Once the task is completed, you can take measurements to determine conformance to requirements. "Nonconformance" is detected in the absence of quality. Quality problems become

nonconformance problems - that is, variation in output. For Crosby, there is no such thing as a quality problem. Problems must be identified by the individuals or departments that cause them. Quality originates in functional departments, not in the quality department, and the burden of responsibility lies with the functional departments. There is no such thing as "the economics of quality". What costs the firm money are all the actions that involve not doing things right the first time. The only performance measurement is the cost of quality or the expense of nonconformance. Crosby notes that companies spend 15 to 20 percent of their sales dollars on quality costs. Crosby's program calls attention to the cost of poor quality by using corrective action over time. "Zero defects" is a performance standard. The theme of "ZD" is do it right the first time. That means concentrating on preventing defects rather than just finding them and fixing them.

1.8 - Quality Assurance Movement

In the 1970's, there was the quality assurance movement. Quality was seen as something to be done before and during the making of a product or delivery of service. Fewer mistakes meant lower costs and fewer unhappy customers (Dean, 1994).

1.9 - The Malcolm Baldrige Award

Throughout the years, quality had certainly taken on an important and omnipresent role however, nothing had ever really been done to legitimize quality. However, this changed in the 1980's with the bill passed in U.S. Congress to promote general awareness of quality in the global marketplace, "The Malcolm Baldrige Award" (Hart and Bogan, 1992). The award was created to promote the four following goals: (1) stimulate American companies to improve quality and productivity for the pride of recognition while obtaining a competitive edge through increased profits; (2) recognize the achievements of those companies that improve the quality of their goods and services and provide an example to others; (3) establish guidelines and criteria that can be used by other businesses, industrial, governmental and other organizations in evaluating their own quality improvement efforts, and: (4) provide specific guidelines for other American organizations that wish to learn how to manage for high quality by making available detailed information on how winning organizations were able to change their cultures and achieve eminence. According to Blackburn and Rosen (1993), for some firms, the Baldrige Award can be used to measure progress in implementing TQM. Winning the award is symbolic of achieving a certain measure of success in that companies have to focus on certain criteria for example: leadership, information and analysis, strategic quality planning, human resource development and management, management of process quality, quality and operational results, customer focus and satisfaction. Each pillar symbolizes a wide variety of issues - together they require that interested companies master an arsenal of different quality

techniques. Those organizations that want to become one of the elite few have to meet certain criteria or success factors.

1.10 - ISO 9000

Another measurement of quality is the ISO 9000 series which is a set of standards that provide basic requirements for quality assurance systems (Dean, 1994). The ISO 9000 is not an award like the Baldrige. Companies whose systems are verified to comply with the standards achieve "registration" through a third party auditor. ISO 9000 deals exclusively with quality assurance systems and adherence to procedures; it does not consider such activities as leadership, strategic planning or customer relations management. Nevertheless, the rigorous documentation standards help companies uncover problems and improve their processes (Dean, 1994).

1.11 - Total Quality Management (TQM)

The historical evolution of quality led to the development of Total Quality Management (TQM). TQM conveys a total company-wide effort that includes all employees, all suppliers, and customers and that seek continuously to improve the quality of products and processes to meet the need and expectations of customers. (Gehani, 1993). Unlike other innovative management strategies, TQM is not restrictive in its applications and can provide organizations with a new way of managing their business (Talley, 1992). However, any firm that embarks upon a TQ journey is in it for the long haul.

TQM requires a change in organizational culture, "a fundamental change in the way groups and individuals approach their work and their roles in the organization" (Brody, 1990). With TQM, a work environment that was once surrounded by distrust and fear is transformed into one of openness and trust where creativity can flourish; from working as individuals to working as teams; from an autocratic style of management to a role of team leader and facilitator; from power concentrated at the top to power shared by employees; from a focus on financial results to a focus on continuous improvement of the processes that deliver results (Brody, 1990).

While the primary focus of TQM is customer satisfaction, an obstacle remains; how do you instill the importance of customer needs to all the employees? Successful TQM programs begin by educating individuals about the business and showing them how they can contribute to organizational success. Employees are encouraged to develop goals that support business strategies including quality objectives. TQM requires that employees feel empowered and responsible for what happens to the firm (Johnston, 1992). According to Fife (1992), in organizations that are able to develop a deeper understanding of the business among workers, the concept of profit takes on a new meaning. Employees who understand financial measures can make an indirect contribution to bottom-line results, if only by understanding and contributing to the control of operating expenses. These employees also come to understand that productivity that does not lead to profitability will not produce wins for the company - or themselves.

Chapter 2: Compensation in the Context of TQM

Although TQM has become a widely used management strategy, many TQM initiatives have failed. Some organizations are now attributing that failure to the "inattention to reward strategies aligned to the performance improvement process" (Walker, 1992). In order for TQM programs to work they have to link rewards to critical success measures such as customer satisfaction, cost reduction and increasingly to profit. Maintaining a Total Quality Management culture requires the use of reward and recognition programs that support quality improvements and quality customer service (Blackburn, 1993).

Reward systems provide a number of important functions in the organization including motivating active participation of organizational members, meeting role expectations, and motivating innovation and strong commitment to the organization (Steers & Porter, 1991). Despite their importance, reward systems and the performance evaluation systems on which they are based are often the last organizational processes to be incorporated into a TQM program (Coate, 1990). A study conducted by Knouse (1993), found that most reward systems under TQM emphasize group rewards, although some combine individual and group rewards. Rewards could go to teams for suggestions and other contributions to TQM, more specifically, special accomplishment for exceeding established goals. The form of the rewards could be either monetary or non-monetary (recognition). Monetary rewards take the form of either gainsharing or sometimes profit-sharing or other bonus sharing,

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where the money has been saved from increased efficiency and decreased costs. In other cases, there could be individual and/or team incentives.

2.1 - Motivational Factors of Rewards

Another important characteristic of the reward is the motivational factors that are encompassed within the reward system. Rewards can provide employees with a reason to function successfully. It provides them with motivation to get involved in their job (McCoy, 1992). In the cases discussed, rewards are contingent on TQM-related performance; guaranteed implementation of TQM suggestions; employee participation in setting rewards, disseminating TQM information, and even in the performance evaluation process itself; goal setting; feedback; and team competition. In a team environment it encourages synergy because all employees share the gains of improvement, they develop a vested interest in cooperatively reaching a successful outcome (McCoy, 1992). In other instances, awards may be conferred to individuals for "exceeding goal expectations". Goal setting research identifies the most effective goals as those that are specific, challenging, and participative (Locke, 1980). Because TQM is data-based and emphasizes team input, goal setting under TQM produces specific, quantitative goals set by teams of managers and workers.

2.2 - Motivational Factors of Recognition

Recognition rewards usually involve symbolic tokens that serve to make accomplishments visible to the rest of the organization, such as hats, t-shirts with TQM logos, or TQM ceremonies, such as a dinner or party, particularly after a team has solved a TQM-related problem or reached a TQM goal. According to (McCoy, 1992), recognition is an after-the-fact display of appreciation for a contribution. In many cases, it is a surprise to the recipient or recipients. According to Blackburn (1993), every organization should strive for a balance between recognizing individual and team performance. A reward and recognition program that focuses strictly on the individual, undermines the importance of the "team" effort. In some TQM organizations, there is a specific permanent group focused on reward and recognition within the total quality framework. This group of individuals would be responsible for dispensing the reward and recognition.

Encompassed within the notion of recognition is the ability to demonstrate one's work. This can be an important motivating factor for many employees. Employees enjoy having their accomplishments recognized by their peers, management personnel and in some instances, top executives. They derive a certain sense of intrinsic motivation from seeing their work put into action. It is no coincidence that companies that respond quickly to suggestions and seek ways to implement ideas are the ones that get the most from their employees (Johnston, 1992).

Another essential component of recognition, is feedback. This could take the form of either peer or supervisory feedback or, customer feedback. By using customer input and recognition whether in the form of comments, customer satisfaction surveys, customer participation in recognition ceremonies, you foster a stronger orientation towards the customer (Knouse, 1993). Who better to judge than the very person who uses your product or service?

Although recognition was not the focus of this study, the literature strongly suggests that recognition is an important contributing factor to increasing motivation amongst employees. The interview questionnaire was re-modeled to incorporate "recognition" in order to measure to what extent it had an impact on success of the firm. In some successful TQM firms, recognition was the only form of incentive utilized. In companies like Motorola, there is an annual corporate contest which involves twenty-three teams from around the world. The best teams each get twelve minutes to put together a project. There are quality metrics which measure the quality of the product, what the team did and the final results. There is a gold medal for the winners, silver and a special medal for the team that demonstrates special creativity. This type of incentive mechanism is based strictly on recognition. Motorola feels that monetary incentives undermine the intrinsic motivation derived from doing a job to the best of one's capability. Innovation and creativity are the key to surpassing the competition. In sum, Motorola feels that having the Company President make an official presentation to an employee for outstanding performance is more valuable than receiving a certain amount of money. (Note: Although the primary focus is on non-

financial incentives, it is not known from the interview data whether there are complimentary perks that make up for the absence of monetary incentives, i.e. higher wages than the industry average).

Although proponents of monetary incentives would not agree, the debate continues as to whether firms should use monetary incentives, non-monetary incentives or, a combination of both.

The types of compensation programs that are being used in TQM will be analyzed. Although there are numerous compensation programs that can be used, for the purposes of this study, four different types of programs with their definition, rationale, operational features, drawbacks and conditions most favourable for the plan will be outlined. Each one of these programs or a combination of them could be successfully implemented in a quality enhanced environment.

2.3 PROFIT SHARING

2.3.1 - Definition

Profit sharing is a procedure whereby an employer provides a share of the profits to employees which may take the form of a bonus or deferred compensation. Profit sharing does not require the use of employee suggestion committees (Hammer, 1988).

2.3.2 - Rationale

Profit sharing is a corporate-wide type of reward since profits are typically reported at the corporate level. Through profit sharing, workers feel that they share a common fate with management because both share the fruits of the companies success. The employees under profit sharing therefore, are more likely to care about the interests of the firm and its customers.

Profit sharing can be used in conjunction with a participative management style to increase employees' understanding of the importance of profits, their effect on it, and how increased profits benefit them (See Table 4).

2.3.3 - Operational Plans

Profit sharing plans come in one of three forms (Hammer, 1988):

- Cash or current distribution plans, which provide for the payment of profits according to some predetermined formula to all participants shortly after profits have been determined, usually quarterly or annually.
 - Deferred plans, which place earned profits in individual workers' accounts to be paid out at retirement, permanent disability, or death.
 - Combination plans, in which a portion of profits to be shared is paid out immediately to employees and the rest is put in individual escrow accounts
- (See Table 5).

PROFIT SHARING

DEFINITION AND RATIONALE

- BASED ON CORPORATE PERFORMANCE
- PROFITS REPORTED ON QUARTERLY OR ANNUAL BASIS
- NO REQUIREMENT OF EMPLOYEE INVOLVEMENT
- WORKERS SHARE COMMON FATE WITH MANAGEMENT (WIN-WIN SITUATION BETWEEN MANAGERS AND THE UNION)

(Hammer, 1988)

TABLE 5

25

PROFIT SHARING

OPERATIONAL FEATURES

- TAX DEFERRED PLAN
 - Most Common Plan
 - Funds Retirement
- CASH BONUS PLAN
- COMBINATION PLAN

(Hammer, 1988)

2.3.4 - Drawbacks

While the motivation for installing profit-sharing plans is to provide a direct incentive for employees to work as effectively as possible, the use of profit sharing as a benefit plan tends to blur the employees line of vision between the outcomes affected by an employee and the profit sharing reward (Gomez-Mejia & Balkin, 1992).

Where profit-shares are paid out directly, a firm's profit levels are often too far beyond the influence of individual workers to be linked to work behaviour.

In addition, the relationship between work behaviour and outcome attainment is too tenuous for most profit sharing plans to have a motivating effect on worker productivity.

Other factors that must be considered: external factors can influence profits, there is a weak line of sight, lack of employee control, there is a limitation on management to utilize profits (See Table 6).

2.3.5 - Conditions Most Favourable for Plan

- A private sector firm
- Mature stable firm (Payouts more likely)
- Use profit sharing to complement other pay plans at the individual or team level.

It can encourage disparate units of the firm to cooperate more with each other while focusing on organization-wide profits (See Table 7 - Gomez-Mejia and Balkin, 1992).

TABLE 6
PROFIT SHARING

DRAWBACKS

- WEAK LINE OF SIGHT
- EXTERNAL FACTORS CAN INFLUENCE PROFITS
- LACK OF EMPLOYEE CONTROL
- MAY RESTRICT MANAGEMENT'S ABILITY TO UTILIZE PROFITS
 - Obligation to share profits
 - Other shareholders

(Gomez-Mejia and Balkin, 1992)

PROFIT SHARING

MOST FAVOURABLE CONDITIONS

- PRIVATE SECTOR FIRM
- MATURE, STABLE FIRM
- WHEN USED WITH OTHER PLANS BASED ON INDIVIDUAL OR TEAM CONTRIBUTIONS

(Gomez-Mejia and Balkin, 1992)

2.3.6 - TQM and Profit Sharing

A profit sharing plan in a TQM environment works best in conjunction with employee involvement plans where employees are highly interdependent and work on a specific product or product line (Gomez-Mejia & Balkin, 1992). When these criteria do not exist, it is difficult to implement a profit sharing plan and have employees feel they share common goals. The question becomes, how do we find common measures of performance within a firm when there is no interdependence. It can be concluded that profit sharing and TQM can co-exist but, there is probably a weak linkage.

2.4 - GAINSHARING

2.4.1 - Definition

According to Lawler (1986), gainsharing can be defined as any program or incentive system that links compensation to the performance of a unit within a firm. The compensation takes the form of a bonus that is paid to employees based on a share of cost savings or profits they generate from improved work methods which they put into practice. The improved work methods are developed from employee suggestions that are provided by the gainsharing committees that solicit employee's ideas for improvements. Gainsharing bonuses can be paid out monthly, quarterly or annual basis. A gainsharing plan can be designed to meet the unique circumstances and objectives of any company and the expectations and needs of any work force.

Gainsharing plans endeavour to tap the unused creativity, motivation, and commitment of the work force (Beck, 1992). A phrase that summarizes the philosophy of gainsharing is "work smarter, not harder." Gainsharing has been found time and again to lead to enhanced performance because it encourages information sharing, responsibility sharing, accountability sharing and participation in decision making. There are three different types of gainsharing plans:

The Scanlon Plan is one of several program types in gainsharing.

- The Scanlon Plan uses the ratio of labour costs to the sales value of production to calculate deviations from the base or norm period (Geare, 1976). It has enjoyed success in both union and non-union settings. The role and power of the trade union and its' leadership are not challenged by gainsharing. The Union President, as a member of the Screening Committee, can veto any changes which infringe on the terms of the collective agreement or which adversely affect his members.

- The Rucker Plan usually covers hourly employees and involves a more sophisticated measure of productivity improvement but a less developed participative philosophy and structure. The bonus formula is a ratio that expresses the amount of production required for each dollar of the company's total payroll.

- The Improshare Plan measures only labour costs, but it uses engineered time standards to calculate a base productivity factor. Its bonus formula is a ratio that includes the number of units produced to number of hours worked (Geare, 1976).

2.4.2 - Rationale

Gainsharing can be used to foster an environment of cooperation between the workers and management because they are involved in providing suggestions for improved work methods in the gainsharing committees (Beck, 1992). Gainsharing fits well with TQM culture because both gainsharing and TQM encourage employees to share their ideas for improvements and both need a high degree of employee participation to be successfully implemented (Gomez-Mejia & Balkin, 1992 - See Table 8).

2.4.3 - Operational features

In order to implement a gainsharing plan there must be a production and screening committee, a bonus reward as mentioned previously and union involvement from the initial planning stages to the implementation stage. The bonus is usually based on historical production data such as labour costs compared to total costs (Beck, 1992 - See Table 9).

2.4.4 - Drawbacks

- There is a weak line of sight between the achieved objectives and the payout because of the use of rigid bonus formulas.
- Because of the committees that are set up, there is often a loss of the manager's power.

GAINSHARING PLANS

DEFINITION AND RATIONALE

- BUSINESS UNIT OR DIVISION
- EMPLOYEE INVOLVEMENT IS ESSENTIAL
 - Organizational Intervention
- WORK SMARTER, NOT HARDER
- GAINS SHARED WITH WORKERS
- EXAMPLE: SCANLON PLAN

(Lawler, 1986; Beck, 1992; Gomez-Mejia and Balkin, 1992)

TABLE 9

GAINSHARING

OPERATIONAL FEATURES

- PRODUCTION COMMITTEE
- SCREENING COMMITTEE
- BONUS
- UNION INVOLVEMENT IN DESIGN OF POLICY

(Beck, 1992)

- The gainsharing plan may penalize efficient units that are operating at peak efficiency since there are few gains to be had in such units, i.e. when there are no improvements to be made, then the efficient units will not benefit from this type of program (Gomez-Mejia & Balkin, 1992 - See Table 10).

2.4.5 - Conditions Most Favourable for Gainsharing

According to Gomez-Mejia and Balkin (1992) there are favourable conditions for gainsharing:

- Units of less than 500 employees
- Units that operate at a low level of the learning curve
- Firms that have managers committed to employee involvement
- Firms that have a corporate culture that values cooperation and participation from employees
- Firms that have a product market that is fairly stable (See Table 11).

GAINSHARING

DRAWBACKS

- WEAK LINE OF SIGHT
- RIGID BONUS FORMULAS
 - Based on historical numbers (i.e. 5 years)
- EFFICIENT UNITS ARE PENALIZED
- LOSS OF MANAGER'S POWER

(Gomez-Mejia and Balkin, 1992)

GAINSHARING

MOST FAVOURABLE CONDITIONS

- UNIT LESS THAN 500 EMPLOYEES
- UNIT OPERATES AT LOW LEVEL OF LEARNING CURVE
- MANAGEMENT COMMITTED TO EMPLOYEE INVOLVEMENT
- CORPORATE CULTURE VALUES COOPERATION AND PARTICIPATION
- PRODUCT MARKET IS FAIRLY STABLE

(Gomez-Mejia and Balkin, 1992)

2.4.6 - TQM and Gainsharing

Gainsharing plans in a TQM environment are conducive when the firm wants to modify employees' behaviour as well as gain their attention. Gainsharing plans usually focus on smaller groups of employees, such as one specific plant within the organization, or a specific unit or department. However, the plan can cover an entire firm if it is fairly small. Gainsharing or operational plans measure performance using some combination of productivity, quality, attendance, safety, cost reduction, project milestones, volumes of sales referrals, etc... They sometimes include financial results based on the achievement of operational goals as an indicator of firm success but, this is usually most successful when combined with operational measures (Gomez-Mejia & Balkin, 1992).

Combination plans use both financial and operational measures of performance. Most employees in an operational plan have an understanding of what they can do to achieve plan objectives. This "line of sight" linkage is a very powerful motivator that links operational goals to improved productivity. It helps employees understand where they fit in the "big picture"

2.5 INDIVIDUAL BASED PAY PLANS

2.5.1 - Definition

As the name implies, these programs are designed to reward individual employees for their own personal contributions to the firm (Milkovich G. & C. Milkovich, 1992). Therefore, it is crucial to develop objective criteria that will enable managers and administrators to assess individual performance (See Table 12).

2.5.2 - Rationale

- Equity: Because performance is considered the most important employee contribution to the organization, a logical extension would be that pay should be distributed in proportion to the individual's effort and achievements.

- Expectancy: To modify or create positive behavioural changes within an individual, it is important that positive behaviour be reinforced and consequently, rewarded. Similarly, it is only fair and just that low performers have their rewards withheld until they improve performance.

- It is imperative that clear goals and objectives be established and that pay be contingent upon these criteria being met (Milkovich G. and C. Milkovich, 1992 - See Table 13).

INDIVIDUAL BASED PAY PLANS

DEFINITION

BRIEF DEFINITION

THESE PROGRAMS ARE DESIGNED TO PROVIDE MONETARY REWARDS TO INDIVIDUAL EMPLOYEES AND REQUIRE IDENTIFICATION OF THEIR OWN PERSONAL CONTRIBUTIONS

(Milkovich, G. & C. Milkovich, 1992)

INDIVIDUAL BASED PAY PLANS

RATIONALE

- EQUITY: BECAUSE WORK IS THE MOST IMPORTANT CONTRIBUTION TO THE ORGANIZATION, IT THEN FOLLOWS THAT PAY SHOULD BE DISTRIBUTED ACCORDINGLY BASED ON INDIVIDUAL INPUT
- EXPECTANCY: BEHAVIOURS THAT ARE REWARDED WILL TEND TO BE REPEATED
- INDIVIDUAL'S PERFORMANCE IS EXPECTED TO IMPROVE - IF CLEAR STANDARDS AND OBJECTIVES ARE ESTABLISHED AND PAY IS MADE CONTINGENT ON THESE BEING MET

(Milkovich, G. & C. Milkovich, 1992)

2.5.3 - Operational Plans

Merit Pay: the importance of merit pay is that it sends the message that individual employees matter and that they can make a difference in our firms, and that difference is recognized and valued with pay. Merit pay typically combines individual performance evaluation with corporate-wide guidelines that translate a specific performance rating and position in the pay range into an increased percentage of base salary (Milkovich, G, Milkovich, C., 1992).

Bonus Pay: this form of compensation is used in less than 10% of firms and it is based on achieving a specific set of goals. Goal achievement can trigger the reward, the bonus is given on a "one time only" basis so it is detached from base salary (Wallace, 1990 - See Table 14).

2.5.4 - Drawbacks:

- **Credibility gap:** there is a large proportion of individuals that cannot see the connection between their performance and the individual reward (Hills, et al. 1987)
- **Budgetary constraints:** often the budget allocation determines the percentage of pay raises that will be dispensed. In many cases the pay differential between high and average performers is not meaningful to employees (Gomez-Mejia, Balkin, 1992).

INDIVIDUAL BASED PAY PLANS

OPERATIONAL PLANS

- MERIT PAY: ALMOST UNIVERSAL. IT BECOMES A PART OF BASE SALARY
- BONUS PAY: NOT CONNECTED TO INDIVIDUAL'S BASE PAY
 - SPONTANEOUS - REWARD IS NOT RECURRENT
 - DOESN'T HAVE TO BE MONETARY

Milkovich, G. & C. Milkovich, 1992; Wallace, 1990)

- Hierarchical orientation: the reward that the individual receives is dependent on supervisory control and availability (Kanter, 1987).

- Competition intensifies as individuals compete for individual recognition and limited rewards. This competition can be extremely dysfunctional if employees need to cooperate and share information with each other which is often the case in a TQM environment (See Table 15).

2.5.5 - Conditions Most Favourable for Plan:

According to Gomez-Mejia and Balkin (1992), there are several conditions that are most favourable for individual based plans:

- A firm that has established an effective performance evaluation system that allows individual contributions to be accurately identified and rewarded.

- When close cooperation amongst individuals is not required and they are fairly independent of one another.

- When a firm seeks to foster a competitive atmosphere that relies heavily on the individual's attainment of organizational goals (See Table 16).

INDIVIDUAL BASED PAY PLANS

DRAWBACKS

- CREDIBILITY GAP: INDIVIDUALS DO NOT SEE THE CONNECTION BETWEEN INDIVIDUAL REWARDS AND THEIR PERFORMANCE
- SETS UP COMPETITION AMONG INDIVIDUALS
- HIERARCHICAL ORIENTATION - INDIVIDUAL DEPENDENT ON SUPERVISORS
- BUDGETARY DETERMINANTS: BUDGET DETERMINES EXTENT OF WHICH PAY RAISES WILL BE DISTRIBUTED AND HOW MUCH

(Hills, et al, 1987; Kanter, 1987; Gomez-Mejia and Balkin, 1992)

INDIVIDUAL BASED PAY PLANS

WHEN INDIVIDUAL BASED PAY PLANS WORK BEST

- THE MORE THE NATURE OF THE TASK ALLOWS FOR THE EVALUATION OF CONTRIBUTIONS MADE BY INDIVIDUAL EMPLOYEES
- THE MORE INDEPENDENT THE WORK BEING PERFORMED
- WHEN CLOSE COOPERATION IS NOT REQUIRED FOR SUCCESSFUL PERFORMANCE AND WHEN COMPETITION IS DESIRED
- THE MORE THE ORGANIZATIONAL CULTURE EMPHASIZES INDIVIDUAL ACHIEVEMENT

(Gomez-Mejia and Balkin, 1992)

2.5.6 - TQM and Individual Incentives

Within the realm of individual incentives in a TQM environment there are a variety of programs. Merit pay, which focuses on the individual, sends the message that the individual makes a difference within the firm. The valued input is recognized through pay. Merit pay typically combines individual performance evaluation with corporate-wide guidelines that translate a specific performance rating and position in the pay range into an increased percentage. Often, appraisals of the individual's performance will be performed by either internal, or external customers. Internal customers being other members of the team (peer appraisal) or an immediate supervisor. External customers being the client base of the firm. This could be done via a customer survey or questionnaire. Both are valid measures if done properly. However, there is a significant drawback to using individual based rewards. The focus on the individual can lead to internal strife and foster an environment based on competition instead of cooperation with other members of the team or firm. This is not to say that the individual should not be recognized within a team but rather, there should probably be a combination of both individual and team recognition in a reward program (Gomez-Mejia & Balkin, 1992).

2.6 - TEAM BASED PAY PLANS

2.6.1 - Definition

Team Based Incentives are designed to provide monetary rewards to groups of employees who perform a portion or all of their work outcomes as members of a team. The reward is earned when the team outcome meets or exceeds specified team goals (Bartol and Hagman, 1992 - See Table 17).

2.6.2 - Rationale

Because it can be difficult to objectively measure the performance of individuals, team based assessment is a logical alternative that does not try to single out the individual's contribution to the team or to firm performance (Landy and Farr, 1983). Unless, however, there is an incentive system that recognizes individuals within the team. An example would be a peer performance appraisal whereby members of the team vote for a team member that has displayed remarkable or exceptional effort for a certain period of time or, whose contributions have stood out and contributed to the success of the team. Team based incentives are a means of reaching cohesiveness amongst individuals who have a diverse range of skills and knowledge. In order to reach peak performance, individuals must work closely together to achieve high performance outcomes. In some cases, individuals are encouraged to set aside selfish tendencies for the good of the team (See Table 18).

TEAM BASED PAY PLANS

DEFINITION

THESE PROGRAMS ARE DESIGNED TO PROVIDE MONETARY REWARDS TO GROUPS OF EMPLOYEES WHO:

- (A) SHARE COMMON GOALS AND OBJECTIVES
- (B) WORK CLOSELY WITH EACH OTHER
- (C) ARE DEPENDENT ON EACH OTHER FOR THE TEAM'S OUTCOME

(Bartol and Hagman, 1992)

TEAM BASED PAY PLANS

RATIONALE

- MEASUREMENT DIFFICULTY OF INDIVIDUAL PERFORMANCE: IN MANY CASES IT IS DIFFICULT TO RELIABLY ASSESS THE CONTRIBUTION OF INDIVIDUALS; THE MORE INTERDEPENDENT INDIVIDUALS ARE, THE MORE DIFFICULT THIS BECOMES.
- NEED TO REINFORCE COHESIVENESS: BECAUSE MOST TASKS ARE CONDUCTED BY GROUPS OF COMPLIMENTARY WORKERS WITH DIVERSE SKILLS AND BACKGROUNDS, TEAMWORK AND COOPERATION ARE NECESSARY CONDITIONS TO HIGH PERFORMANCE OUTCOMES

(Landy and Farr, 1983)

2.6.3 - Operational Plans

Most rewards are based upon team performance. All members of the team are evaluated and rewarded pursuant to an evaluation of the team's outcome. In order to maintain cohesion, in most cases the team reward is divided equally between the team members. Because team members are empowered, they may decide as a team to withhold a team reward to a poor performing team member (Gomez-Mejia and Balkin, 1992 - See Table 19)

2.6.4 - Drawbacks

- The free-riding effect (Albanese and Van Fleet, 1985): low performing individuals take advantage and benefit from the team's performance. Because rewards are evenly distributed to all members of the team, these individuals reap the rewards even though they have not earned the privilege. A free rider can poison the "esprit de corps" of an effective team.

- Sometimes, the team will apply pressure or force high performing individuals (rate busters) to suppress their output for fear that higher output and falling demand could lead to terminations. This is somewhat similar to a slow-down, whereby a group of employees controls the production output. Under TQM, employees usually receive management assurance that their improvements will not lead to working themselves out of a job (Edwards, R. et al., 1982).

TEAM BASED PAY PLANS

OPERATIONAL PLANS

- MOST COMMON METHOD: ALL TEAM MEMBERS RECEIVE A REWARD PEGGED TO GROUP OUTCOMES. THESE CAN BE BASED ON COLLECTIVE ASSESSMENT OF TASK FORCE OR PEER APPRAISAL

(Gomez-Mejia and Balkin, 1992)

- Diluted contributions: Supervisors are sometimes placed in the precarious situation of trying to figure out who is carrying their weight and who is not. Pressure is usually applied by factions within the team, but the underlying problem can sometimes be political in nature (Gomez-Mejia and 1992).

- Poor synergy between teams: A high reward focus on team incentives may lead to dysfunctional competition between teams if the teams themselves are expected to cooperate with each other (See Table 20).

2.6.5 - Conditions Most Favourable for Plan

- When the identification of individual contributions is difficult to measure and arbitrary because of the interdependency between team members.

- When the work of individuals is highly intertwined;

- When a firm wants to make rewards contingent on specific goals that are either set by the group or the firm. These rewards are not calculated into a pre-arranged formula that fits into the firm's budget;

- When the nature of the technology and the work flow of the organization allows for the development of independent groups that enjoy working autonomously;

TABLE 20
TEAM BASED PAY PLANS

DRAWBACKS

- FREE-RIDING EFFECT: LOW PERFORMING INDIVIDUALS TAKE ADVANTAGE AND BENEFIT FROM THE TEAM'S PERFORMANCE. INDIVIDUALS REAP THE REWARDS EVEN THOUGH THEY HAVE NOT EARNED IT
- RATE BUSTERS: TEAM MEMBERS WILL APPLY PRESSURE ON TOP PRODUCERS TO SLOWDOWN THEIR OUTPUT FOR FEAR THAT GREATER OUTPUT WILL LEAD TO JOB TERMINATIONS.
- DILUTED CONTRIBUTIONS: SUPERVISORS ARE PLACED IN A PRECARIOUS SITUATION OF TRYING TO FIGURE OUT WHO IS CARRYING THEIR WEIGHT
- COMPETITION AMONGST TEAM MEMBERS WHO SHOULD BE COOPERATING WITH ONE ANOTHER
(Albanese, Van Fleet, 1985; Gordon, Edwards & Reich, 1982; Gomez-Mejia & Balkin, 1992)

- When the likelihood of the free-riding effect is low. This type of reward scheme is highly conducive where individuals are intrinsically motivated, the hiring and selection process is selective and there is a high degree of professionalism (Gomez-Mejia and Balkin, 1992 - See Table 21).

TABLE 21
TEAM BASED PAY PLANS

WHEN TEAM BASED PLANS WORK BEST

- WHEN INDIVIDUAL CONTRIBUTIONS ARE DIFFICULT TO MEASURE BECAUSE THE WORK OF TEAM MEMBERS IS HIGHLY INTERTWINED
- WHENEVER THE FIRM WANTS TO MAKE REWARDS CONTINGENT ON SPECIFIC TARGETS OR GOALS; THESE REWARDS ARE NOT CALCULATED INTO THE FIRM'S BUDGET
- WHENEVER FREE-RIDING PROBLEMS ARE LESS LIKELY TO OCCUR (A) INDIVIDUALS ARE INTRINSICALLY MOTIVATED, (B) HIGHLY SELECTIVE RECRUITMENT, (C) HIGH DEGREE OF PROFESSIONALISM

(Gomez-Mejia and Balkin, 1992)

2.6.6 - TQM and Team Incentives

Team incentives are usually given equally to all members of the team. Team awards are very conducive to the TQM philosophy because it concentrates on rewarding individuals within the team after they have met certain targets or goals set for the team. How do the teams measure their output or performance? By using Statistical Process Control (SPC). SPC can be used as a device for measuring product or service deviations and thereafter, used as a base for dispensing team incentives (Soin, 1993).

Both profit sharing and gainsharing can be used in conjunction with team incentives. In order to support a total quality culture, both of these compensation programs should be used as a supplement and not as the primary program.

2.7 - Common Pitfalls in Compensation in Context of TQM

When designing a compensation program it is important to keep in mind several pitfalls that could hinder the successful implementation of TQM. According to Gomez-Mejia and Balkin (1992), there are six common pitfalls to avoid:

2.7.1 - Single-Mindedness

The over reliance on compensation as the only reward can produce dysfunctional effects. This can lead individuals to rely too heavily on the reward mechanism and become oblivious to their performance on the job. Their main concern is to achieve a certain level of performance that will trigger the reward. This type of

behaviour leads individuals to ignore important aspects of their job, thus hindering their overall performance within the firm.

2.7.2 - Lack of control

Unfortunately, there are various external factors that affect overall performance. It is unusual for employees to directly control all the factors that affect their performance. For example, when analyzing team performance it becomes more evident that the performance of the individual can be influenced by the performance of the team. This can sometimes have a disastrous effect on appraising performance of individuals within the team. How does one distinguish between the individual's performance when their tasks are inextricably tied to one another. It becomes extremely tenuous to appraise the individual's performance within a team context. This suggests that the level of the reward (individual, team, etc.) should match the locus of control of the individual or individuals whose performance is being rewarded.

2.7.3 - Lack of valid measures

In order to dispense rewards there must be a clear and unambiguous system that measures performance. In TQM, this is sometimes referred to as the performance metric. Whether that be individual or team performance is entirely dependent on the situation. The use of performance appraisals is not a foolproof method of assessing individual and team performance. Some experts even contend that it can lead to negative reinforcement instead of the opposite. There are several biases to consider

when evaluating employee performance. Such as halo or leniency errors. Many of the traditional performance metrics ignore customer satisfaction resulting in a reward system that is disconnected to TQM.

2.7.4 - Inflexibility

Once a reward system has been designed and formulas have been established, it becomes exceedingly difficult to change those formulas. Often, employees get comfortable with payoffs. To change them could lead to strong resistance from employees who benefit from them. Another important aspect to consider when implementing compensation and reward system is resistance to change. Many individuals instinctively fear the unknown. Scepticism sets in when changes are forthcoming. Unions, often act as a coalition against change. They may prefer to have things remain status quo. Therefore, it is important to develop a comprehensive strategy when implementing a compensation system. Straightjacket formulas for reward payoffs can lead to stiff resistance when new conditions require change. Reward policies should be flexible.

2.7.5 - Line of sight

An important facet to consider when developing a compensation and reward system is making the reward tangible and readily available. If an individual reaches or exceeds performance goals or objectives, that individual should be rewarded as soon as possible. Research indicates that there should be a "short" line of sight between

the achievement and significance of the goals and payout (Gomez-Mejia and Balkin, 1992). Rewards have a more powerful impact when they are quickly dispensed and when they are meaningful to the employee in terms of his or her work outcomes. Employees can see first hand how their efforts translate into reward-producing outcomes. However, the reward does not have to be monetary in nature. The objective is to change the behaviour of the individual or the team through incentives. By shortening the gap between the payout and the achieved performance, the chance of success increases. It is hard to modify an individual's behaviour when the reward kicks in eight months later. By that time, they have forgotten what the objective was and its importance has greatly diminished.

2.7.6 - Reduction of Intrinsic Drives

Financial incentives may become so potent that an individual's intrinsic drives are dominated by extrinsic demands. Deci (1975) argues that, first, the most effective form of motivation is that which individuals derive from the job itself and the satisfaction felt for doing a job well, and, second, performance-contingent pay is utilized at the expense of that natural desire to self-actualize. According to Deci - when behaviour is intrinsically motivated, the perceived locus of causality is said to be internal. This simply means that people perceive the cause of a certain behaviour to be intrinsic. They will engage in the activity for intrinsic rewards. However, when they receive extrinsic rewards, their perceived focus of causality becomes external and they perform the behaviours only if they believe that the extrinsic rewards will be

forthcoming (McCoy, 1992). Pay may be pushed to the point where individuals lose all interest in exploration, innovation, search for challenges, and enjoyment of work activities outside those prescribed by the incentive system.

2.8 - Conditions for Successful Compensation Programs in Context of TQM

2.8.1 - Loose Coupling

- There are very few situations where a tight fit between performance and rewards is justified. It is important for firms to realize that pay and performance should be loosely coupled. When using rigid formula-based approaches, it becomes difficult to make changes to the program if the criteria are already established. Perhaps stronger consideration should be given to letting the employees select the amount of risk and reward that they will incur. This type of program avoids the problems encountered with profit sharing and gainsharing (Gomez-Mejia and Balkin, 1992).

2.8.2 - Clear Measurement Criteria

- In order for pay programs to be successful, the measurement criteria should be clear and unambiguous and there should be a short line of sight between the employee's efforts and the payout. When measurement is quantitative, simple and structured to permit a line of sight to the desired work outcome: customer service, quality, production, etc... (Lawler, 1991). This type of rationale reinforces equity and creates a supportive culture.

2.8.3 - Acceptance of Plan by Employees

- A pay program that is accepted by all employees is also an important facet of success. Employees have to believe that the plan is not just another fad, but a fair

program. In addition, a plan that encourages team efforts rather than singling out selected groups or individuals.

2.8.4 Short Line of Sight

- A pay program that allows timing for the payouts to be shorter rather than longer (Lawler, 1990).

2.8.5 - Awards that are large enough

- Awards that are large enough to make a real difference to employees. Firms should keep in mind that one month's salary is an award size typical of successful plans. However, increases should not be so high as to go above competitive practices. (Gomez-Mejia & Balkin, 1992).

There are various sizes of rewards for both individuals and teams.

- Small awards or "spot bonuses" are given to recognize special efforts in the context of daily operations. These awards usually include a movie pass, certificate for dinner for two, and occasionally, several hundred dollars. This type of reward is not costly and serves the purpose of recognizing individual performance without a lengthy nomination process. This award can apply to both teams and individuals.

- Medium size awards are usually given for the achievement of major milestones such as: the acquisition of a new and major client, the completion of an important project ahead of schedule, etc...

- Big awards are more complex and intricate and usually involve a nomination

process. These type of awards are usually reserved for a select group of individuals within the organization. These awards are usually given out after the development of a significant new process or product, the acquisition of a critical account or, the attainment of major cost savings. Payments range from \$10,000 to \$25,000.

Chapter 3: Training in the Context of TQM

In order for total quality to be successful, training must be provided at all stages of the implementation process and continuous training must be provided thereafter. Training can be an effective tool for communicating the firm's strategy and pave the way for a smooth transition to quality. When individuals are provided with the knowledge and skills they will need through training, there is less resistance to change.

For the past several years many organizations have implemented TQM on a whim. Initially, everyone gets excited about the idea of TQM then, someone within the firm decides to implement a TQM program. A vast array of literature suggests that many TQM programs fail because of the lack of training involved at the initial planning stages. Most quality gurus emphasize that training is an essential part of any training program (Cocheu, 1992). Without it, many firms are destined to fail before they can even begin to reap the rewards of TQM.

For any TQM plan to be successful there are several key components that must be taken into consideration when developing a training program.

3.1.1 - Top-down commitment

As mentioned previously, there must be top-down commitment at the initial stages of the implementation plan. Executives must be able to tie the TQM training to the overall business objectives of the organization in order to gain

commitment from all lower-level management and employees. The initial training has to deliver a consistent message to everyone, while also addressing the divergent needs of people at different levels of the organization (Minton-Eversole, 1993).

3.1.2 - Executive Training

The first level of training is for executives. The topics for executive training include: defining quality and its' strategic importance to the business; articulating a quality philosophy; developing a shared vision and an improvement strategy; developing an improvement team infrastructure; developing supplier partnerships and making improvement continuous.

3.1.3 Management Training

The next level of people who need training is managers: they must try to personalize the company's quality message and tailor the general approach to their specific requirements. For managers, there can be an off-site seminar for three to five days which allows them to establish their roles and help them understand where they fit in the big picture.

3.1.4 - Employee Training

For individuals, training can be in-house. The content of the training usually consists of explaining what quality is and why it is important to the organization. This is usually referred to as Quality Awareness Training. During this training session,

managers can extol the virtues of quality, what the company's quality philosophy and vision are and the firm's strategy. It is important for people to understand why the firm has decided to implement quality, this is part of the validation process that allows employees to tie the why and how together (Cocheu, 1992) .

3.2 - Six Phases of TQM of Training

According to Spiess, et al.(1993), there are six training stages:

Included in the first phase of training is a needs assessment. At this point, all members of the organization should be solicited in order to receive all relevant feedback that will be retained for the training. With needs assessment training, you can start training within departments, team training and more specialized training for those individuals that will become team facilitators or statistical process control coordinators (Spiess, 1993).

During the second phase of training (quality training), the objective should be to provide people with the knowledge they need to implement the quality management system that the organization has selected. This could be any of the following: The Malcolm Baldrige National Quality criteria; ISO 9000; Deming Prize; NASA Award for Productivity & Quality; the President's Award for Quality and Productivity and Composite Systems.

The focus of the third phase is Improvement teams. This will give employees the knowledge and skills required to participate effectively as members of teams. Topics could include: self-empowerment; meeting management, including group process and roles; team organization, including different types of teams and techniques for setting up teams; problem solving and decision making techniques; and the seven quality tools (brainstorming, cause and effect diagrams, check sheets, histograms, Pareto charts, other charts, and scattergrams). At this point there will also be training for team leaders and the different angles of their jobs.

For managers, phase three training would include: how to develop and foster a participative environment at work; learning why employee involvement is necessary for improvement; leading versus managing; trusting and delegating; sponsoring and coaching teams; monitoring team performance and maintaining control; and recognizing and rewarding team accomplishments. It is important that managers do not feel threatened by the new infrastructure. Their roles are going to change significantly and they will need the necessary tools to adapt to their new position within the firm.

Phase four involves specific training for salespeople and service representatives who need specific training on how to work effectively with customers. The focus here is on empowerment. People must believe they have the responsibility and ability to take the necessary actions to satisfy customer needs (Taylor, D., Ramsey, R.K., 1993). Skills they will need include: listening actively and demonstrating courtesy, respect and concern; soliciting customers' expectations; responding non-defensively

and empathetically; helping customers maintain their self-esteem; negotiating winning solutions; taking the initiative to satisfy customers; and follow-up to ensure customer satisfaction.

Phase five concentrates on process control and improvement. Teams need to figure out how to continuously improve both manufacturing and business processes. Process control means identifying and eliminating special causes of variation and bringing processes into a state of statistical control. This is usually done through the use of a control chart. Process improvement, involves identifying and minimizing common causes of variation as well as eliminating waste and reducing cycle time (Harrington, 1991). Topics for stage five training are statistical process control which includes variation and data distribution, run charts and control charts, special versus common cause variation, critical parameters, identification of out of control limits, and corrective action.

The sixth and final stage, involves quantitative methods for product design, development, and production including such activities as statistical design of experiments, sampling methodology, process capability, and reliability engineering.

Training must be preceded by a well-articulated quality strategy and must be designed to facilitate implementation. Each phase of the quality training curriculum should build on the preceding phase of training to give people at every level of the organization the knowledge and skills they will need and, the training design must take into consideration the differences in roles between executives, managers and individual contributors (Cocheu, 1992).

3.3 Implications of Training

After the initial planning phase, there are other factors that have to be taken into consideration. Any organization that undertakes TQM training has to be prepared for changes within the firm. They have to change their way of doing business in order to accommodate everyone's training schedule. All departments have to assume greater responsibility and greater workloads in order to enable the quality initiatives to work. Many firms even have after-hours training included within the paradigm of training. For some production or assembly-line plants, training on-the-job is not conducive, therefore, employees are trained after work, or on the weekends. (Often, employees are paid for training after hours). It is essential that firms undertaking TQM training set aside a healthy budget for training. Without it, training cannot be completed and the plan will never take off (Cocheu, 1992).

3.3.1 Communication and Information Sharing

There should be a high level of communication and sharing of information for the entire organization. There must be discussions in order to solicit feedback and input from all employees. Employees must feel that they are important and that their suggestions for training will be taken into consideration and implemented when feasible.

3.3.2 Reward and Recognition for Training

As with any training program, there must be a reward and recognition program for those who participate in quality training or using quality tools. They can recognize someone who is doing something commendable or who is making time for quality training. Monetary incentives are not the only means of rewarding employees. A small token commemorates the efforts of employees who make training a priority for themselves and the firm.

3.3.3 Training for tasks at hand

Many organizations go off on a tangent and give training that is not necessarily related to the tasks at hand. Training must be related to the tasks people perform on the job and must provide useful tools that can be applied immediately. Employees must see how the training helps them improve the quality of their work and decrease production or service costs. Without it, employees become oblivious to the training initiatives and the TQM program!

The phases of training described above are not a blueprint for success but rather, provide guidelines that can be useful when implementing quality training. Firms that embark on a quality project must be prepared to be committed to training and all its implications. One thing is certain; those organizations that do not get involved with training will definitely not survive the transition to TQM.

Chapter 4: Teams in the Context of TQM

Newspapers and professional journals tell you that successful companies are run with teams, that teams are the wave of the future, and that you should focus on improving your team. More recently, companies have extolled the virtues of teams when used in the context of a total quality environment. A focal point of this study will be on the use of teams, the types of teams that exist, teams and pay, and the training of teams.

Depending on the nature of the work performed, the type of team utilized will vary from one organization to the next depending on their specific needs and what is most conducive for the firm.

The literature suggests that there are three types of teams that can be used in the context of TQM: (1) parallel/problem solving teams, (2) project teams and (3) work teams/self directed teams (Lawler & and Cohen, 1992). The autonomy of the team would indicate if it is a self-directed team or not.

4.1.1 Parallel/Problem Solving Teams

A problem solving or parallel team supplements the regular structure and performs problem-solving and improvement oriented tasks (Lawler and Cohen, 1992). Within the realm of parallel teams one can usually find: quality circles, quality-improvement teams and employee participation teams. These teams are called problem solving or parallel teams because participating employees are taken out of

their regular organizations and placed in separate team structures that have different operating procedures and objectives. These teams usually meet on a weekly or bi-weekly basis to discuss problem-solving processes and quality-improvement techniques. A training program is given on both these processes in order for employees to detect quality problems and provide problem-solving techniques. Their role is to make recommendations to upper management that will suggest changes that could lead to improved processes. The team must obtain upper management approval before any type of changes can be made. Literature reviews have reported many cases in which problem solving/parallel teams have saved companies thousands of dollars with their suggestions.

However, there are certain limitations to these teams because they are not a permanent structure within the firm. They encounter difficulty when trying to achieve organizational legitimacy because they must compete for time, money, information and other resources. There are some individuals, like managers and other staff professionals, who perceive these teams as a threat because they are required to respond and implement recommendations that are similar to managerial mandates and therefore, there is a certain element of competition that can be somewhat detrimental to the organization.

4.1.2 Parallel/Problem Solving Teams and Pay

Because these teams are an extra, they have the fewest implications for the reward system in an organization. They are an add-on reward and, as such, potentially

can be supported by add-on reward systems. There are some who argue that no reward-system changes need to be made if the existing reward system does not conflict with the use of parallel teams. However, there is also the argument that the rewards can foster motivation and lead to enhanced problem-solving.

Rewards for performance

There is a relatively wide variety of approaches that can be used to reward parallel/problem solving teams for the effectiveness of their problem-solving work. Some proponents of "participative management" believe that a gainsharing program is conducive to the use of problem-solving teams. Gainsharing can be a conducive form of rewards when used in conjunction with problem solving teams in an environment that has open communication systems and an atmosphere that is focused on participative decision-making (Blinder, 1990; Lawler 1990; Schuster, 1986). The major motivational weakness with gainsharing plans is that the line of sight between the suggestion and the size of the bonus, is weak. The alternative to gainsharing is to give bonuses to teams for their suggestions. A number of organizations have used this approach whereby, an estimated savings amount is calculated and individuals who contribute to the idea are given a percentage of the estimated savings. The financial bonus is closely tied to the development of the idea (i.e. when the suggestion is implemented then there is a payout).

However, there are a number of risks if the estimated savings are not realized and individuals are still rewarded even though the company does not gain (Lawler and

Cohen, 1992).

As noted by many authors, individual suggestion systems that give individuals rewards would clearly be incompatible for parallel/problem solving teams (Jenkins, G.D., et al., 1992). They are in direct conflict with the idea of a team developing ideas. They reward the wrong kind of behaviour and compete directly with group-suggestion and problem-solving approaches. Some organizations use recognition to reward teams for their successes. But, there is no evidence to indicate whether recognition rewards are effective in this application (Lawler and Cohen, 1992). Recognition rewards may have a positive and motivating effect when they are given following the accomplishment of something significant and the reward is valued by the group. For example, a formal awards ceremony where the CEO gives the individual(s) a monetary reward after the firm has implemented a suggestion or idea that has saved the firm thousands of dollars. When employees on this type of team are brought together to work on problem-solving or quality improvement processes, they need to learn horizontal skills that will give them greater insight into work processes and as a result, make them better members of a team. In addition, if they are trained and rewarded for learning problem/solving and analytical skills they can be better team members. To some extent, there is a logic in combining skill-based pay and problem solving/parallel teams. However, one problem with doing this is that the cost of training and supporting the teams may outweigh the benefits. Individuals are members of a team for only a short period of time and therefore, membership is transitory.

4.1.3 Project Teams

A project team is comprised of a diverse group of knowledge workers, such as design and process engineers, programmers and marketing managers, etc... (Lawler and Cohen, 1992). They are brought together to conduct projects for a defined but typically extended period of time (example: for a couple of months or, in some instances, years). The role of these specialists is to apply their disparate specialties to developing innovations that will enable them to fulfil customer requirements. One disadvantage when utilizing project teams is the difficulty in measuring the value of their output because often the results of their work may not be known for an extended period of time. As well, members in a project-based organization are usually assigned to new projects when their current project is finished and, therefore, measurement can be difficult.

4.1.4 Project Teams and Pay

The use of project teams presents an interesting challenge for reward systems. They often require a reward system that is specifically designed to support them. Traditional pay for performance systems focus on individuals and tend to measure and reward performance on an annual schedule. Both of these practices are inconsistent with motivating project teams. One choice for motivating a group is a reward system that establishes operational metrics for successful group performance and sets rewards that are tied to the accomplishment of the group. Once the group achieves the desired performance, rewards are then distributed after the completion of the

project. It is extremely difficult to reward an individual's team performance because membership on the team often changes throughout the life of the projects.

A gainsharing plan can be an alternative to rewarding group performance at the end of each project or, a reward program that is designed for rewarding performance at the organizational level (Lawler, 1990).

This may be the preferred alternative to rewarding individual teams when, in fact, the teams' activities have a major impact on the effectiveness of the unit, and it is difficult to measure the effectiveness of the team. It could also be a preferred alternative if the project teams are in existence for short periods to time and, as a result, the timely measurement and rewarding of the performance of individual teams is difficult. This type of reward system makes sense in organizations that want a long-term relationship with their employees.

Although a project-team environment focuses on the contributions of team members, it is also necessary and sometimes desirable to focus on individual performance. Individual performance in the context of the team can be measured through peer ratings, as well as customer satisfaction ratings (Lawler, Cohen 1992). Pay for performance in this instance becomes a derivative of how effectively the individuals performed on the projects in which they participated. Alternatively, spot bonuses can be paid at the end of each project.

As suggested by Lawler (1990), skill-based pay fits well with a project-based organization better than job-based pay. In a true project-based organization, it is often not clear what an individual's job is. What needs to be clear are the skills the

individual has.

In order to achieve a certain measure of organizational effectiveness, it is necessary to develop the right skill mix so projects can be staffed with individuals who are competent to execute them. The right mix of skills can be created through the use of skill-based pay by providing incentives for individuals who learn skills that are needed to match the organizations project needs. Skill-based pay can also help attract and retain individuals who have the right mix of skills for the organization. In addition, skill-based pay provides a certain level of encouragement for individuals to learn horizontal skills that will supplement the work flow and as a result, be more beneficial to the firm (Lawler, 1990).

In some project organizations, the issue is not always creating long term retention or a culture of permanence and security but rather, encouraging individuals to make a strong commitment to working effectively on a single project. A suitable compensation strategy may well be to pay high levels of variable compensation based on the performance of individuals or project teams. Less emphasis should be placed on benefits, and instead, a compensation approach that uses cash may be the appropriate one. A certain advantage to having project teams is their ability to administer the rewards of team members. Peers are often the most knowledgeable with respect to the performance of individuals on a project team and thus, it is quite conceivable for teams to make the pay and reward decisions (Lawler & Cohen, 1992).

4.1.5 Work teams/Self-Directed Teams

According to Orsburn et al. (1990), a work team/self-directed team, is a self-contained, identifiable work unit that is responsible for producing a product or providing a service. Work teams are performing units in which members report through the team and are responsible for the group's performance. The degree of management responsibility placed in the group varies significantly. Usually work teams have discretion over work methods, scheduling activities and the assignment of individual tasks. In some instances they even perform their own personnel functions such as hiring and firing of team members. The names used to reflect the variability in their authority, such as self-managing teams, self-directed teams, autonomous teams, shared management teams, etc.. They typically control how the task is performed but, not what is performed.

Work teams are found most frequently in manufacturing settings, but this design is applicable to any situation in which people are interdependent and can be collectively responsible for a product or service. The use of work teams has increased significantly over the past years, with 47 percent of Fortune 1000 companies reporting that they use work teams, compared to 28 percent in 1987 (Orsburn et al., 1990). However, there has been limited research on the effectiveness of work teams.

All the necessary competencies are usually located within the team. Typically, members are cross-trained so they can do most or all of the tasks that fall within a team's area of responsibility. Team members tend to rotate their tasks on a regular basis (Jessup, 1992).

4.1.6 Work Teams/Self-Directed Teams and Pay

The use of work teams requires a fundamental shift in reward practices. Traditional reward practices are designed to support individual job performance through individual pay-for-performance systems and job-based compensation. Neither of these practices meets the requirements of work teams (Lawler & Cohen, 1992).

The most effective way to motivate team performance is to establish objectives and metrics for successful team performance and link rewards to team success. According to Lawler and Cohen (1992), there are three ways of rewarding performance at the team level. First, rewards can be tied to team performance through the use of a merit pay system based on team performance appraisals. Second, special awards can be provided to teams to recognize outstanding performance. Third, rewards can be provided to teams using gainsharing plans.

According to Mohrman, Mohrman and Lawler (1992), merit pay in the form of salary increases or bonuses can be distributed to a team based upon the results of a team performance appraisal. There must be clear and explicit objectives in order for performance appraisal to work for teams. With the use of team performance appraisals, teams can conduct self-appraisals and obtain customer feedback. In some instances, managers are uncomfortable giving the same size reward to all team members, so they differentially reward individual performance. However, providing different rewards to individual team members can undermine cooperation and the collective effort that is necessary for teams. Furthermore, if there is high interdependence among team members, often it is not possible to differentiate

individual performance accurately and as a result, the rewards are not based on valid measures. It may make sense to combine individual pay and team incentives when team members are not highly interdependent. A bonus pool can be created based on team performance, with the amounts divided among members based on individual performance. It is critical that the manager solicit input from team members about the relative contributions of individual members in order to avoid friction and not create division within the team (Lawler, 1992). As noted by Mohrman, Mohrman and Cohen (1992), there is a certain element of cohesiveness that is created when team members assess individual performance within the team because they must support one another and understand all components of the team task. As a result, they have the opportunity to develop multiple skills that are required within the work team.

Recognition programs or special awards can be an additional way of linking pay to team performance. The advantage with this type of pay program is the short line of sight whereby team members are paid immediately after exceptional performance has occurred. Special awards should only be used to recognize exceptional team achievements. If teams are rewarded too often with special awards, it will lose its impact. In other instances, when the team performs well, other pay for performance systems will be used.

Gainsharing can be an additional approach that can be used to provide rewards for team performance. With gainsharing, teams must be fairly autonomous, responsible for a measurable output and comprised of members who are interdependent. Gainsharing is well suited to the participative nature of work teams.

It is conducive because it motivates teams to monitor their performance and learn how to improve their performance not only within the team but within the entire organization. Gainsharing can provide teams with measurable targets that help them to continuously improve their performance.

Rewarding a team for its separate performance is not always appropriate. It is imperative that there be a certain degree of integration and differentiation. If the team is not highly autonomous, then providing rewards at the team level may be counterproductive. The use of a gainsharing or profit-sharing plan that rewards team members based on the performance of the larger organizational unit can serve to integrate the team into the rest of the organization and act as an offset to the strong cohesiveness that tends to develop in a work team (Lawler and Cohen, 1992).

In general, an organization composed of work teams needs to make sure its compensation system motivates team performance. This can be done through the design of the right mix of team-level and organizational-level pay programs.

4.1.7 Why Work Teams?

Many organizations have adopted self-directed work teams as an effective strategy for improving quality and productivity within the workplace. "Self-directed teams help drive a quality improvement effort into every fibre of the organization. When teams assume more operational responsibility, they develop a deep affinity for the technical nuances of their work. Analyzing their own work process in search of improvements is a way of life for work teams" (Orsburn et al. 1990, p. 16). The

overall objective of self-directed teams is to produce higher quality products and services, promote customer satisfaction through quick responses and improved quality, improve employee morale, create a flatter organization and in some cases, survival.

With increasing global competition in the marketplace and the need for innovative new strategies that allow firms to become more responsive and quickly adapt to changes, self-directed teams have met those needs. In instances of firms that wanted to develop high employee involvement in their daily operations, self-directed teams have met those needs. There is a certain entrepreneurial spirit that is instilled within work teams because of the nature of the team and their attachment and sense of ownership to corporate goals. Work teams are responsible for their output and as a consequence, derive satisfaction in managing their piece of the business.

According to Orsburn et al. (1990), because of the nature of work teams, they have far more resources at their command than traditional teams do. They have a wider range of skills and cross-functional capabilities within the team and more importantly, a high level of decision-making authority. Work teams are responsible for activities that were once the exclusive province of supervisors and managers. They plan, set team priorities, organize, coordinate and measure team objectives and goals. They solve problems relating to scheduling and work assignments, handle personnel issues, like absenteeism and in some cases, where the teams are completely autonomous, they are responsible for team member selection and evaluation. They are trained in the skills they need to function as a team and are usually cross-trained in

order to perform all jobs within the team.

Before embarking on the work team/self-directed conquest, firms should carefully analyze whether their organization is suitable and ready for work teams. It is crucial that all members of the organization learn about work teams, especially, upper management. There should be a "readiness assessment" to determine if teams are right for the firm's culture.

Companies that are moving to work teams must select work forces that are equipped with or capable of acquiring the competencies, skills, and values necessary for successful performance (Bridges, 1993). There should be at least four major features: a screening and selection system that identifies candidates who are most likely to succeed in the new team environment; it must be legally defensible; it must be perceived as fair (candidates should believe that the system is equitable and that the system has accurately assessed their potential as candidates for the jobs in question; and the "selection system" must be efficient (Wellins, 1992).

During the first step (job analysis) a list of behaviours, technical knowledge, skills and motivational areas that differentiate successful performers from unsuccessful ones should be generated. When choosing a team leader, additional dimensions are involved: including individual leadership, group leadership, judgement delegation and encouragement and support for initiative (Wellins, 1992). An accurate and effective tool of measurement would be simulations. This enables the firm to

measure job potential through the use of a series of structured activities that loosely resemble procedures used on the job. "The job preview on the other hand, is an effective mechanism for discouraging applicants who decide that a team environment is not for them, and for encouraging applicants who see it as an exciting new workplace opportunity (Wellins, 1992, p. 27).

4.2 Training for Work teams

When moving toward team-oriented environments, companies tend to underestimate the need for new types of training. Work teams or self-directed teams encourage multi-skilling and job rotation, which require a heavy investment in technical training. Workers must learn to work together as a team and not strictly as individuals as in the past.

In order to ensure the smooth transition to teams, each team member receives extensive training in the administrative, interpersonal and technical skills required to maintain a self-managing group (Orsburn et al., 1990). Each team member will receive the training required to perform the range of activities within the whole team. They will remain part of the team as long as they meet or exceed the team's established goals and objectives. (Orsburn, et al. 1990)

4.2.1 Awareness training

Awareness training is a means of reaching and understanding why the company has adopted work teams. Presentations, discussions, visual aids, and question and answer sessions are targeted to people at specific levels within the company. Training varies in content and format for each level. The training should be tailored to those receiving it. For example, if the attendees are potential team members, they will receive more training than people who will not be part of the team, at least initially. Each level provides training for the one just below it. Accordingly, executives conduct training for managers, managers for supervisors, and supervisors for first-line employees. Often a top executive will participate in all levels to show top level commitment. After awareness training is completed, team member training will begin. Team members need training in work-team awareness, technical skills, interpersonal skills, problem solving, and administrative procedures. They will continue to need additional training, some types at the beginning, and more of other types later on. As long as their team continues to grow, to diversify, to add new members, and to acquire members with new or enhanced skills. It is important to offer enough training to give team members the skills they need, but not so much that they become overloaded.

4.2.2 Interpersonal skills

Another very important facet of training is interpersonal skills. With their broadened responsibilities, members of the team must communicate more effectively than conventional workers, both within the team, and with people outside the team. Cooperative decision making within and amongst teams demands the skills of group problem solving, influencing others, and resolving conflicts (Orsburn et al., 1990). In short, every team member must learn to collaborate in getting the right information, and using that information to increase productivity.

4.2.3 Technical training

The third part of the training program focuses on the technical skills required to function effectively within a team. Technical training focuses on the actual tasks the team is responsible for: operating a piece of equipment, processing a claim, repairing a machine, and so forth. Since team members should continually be adding to their technical skills, technical training goes on throughout the life of the team. The specific training programs and who takes them, grow out of the team's need for certain technical skills and out of the individual member's abilities and interests. When an employee is part of the team there are certain requirements and expectations with regard to technical skills. When an individual team member agrees to master a range of skills and responsibilities for a specific period, it is usually a period of six months (Orsburn et al., 1990). The technical training plan includes a section on how and when the mastery of these range of skills will occur. The objective of this type of

training is to gain an individual's commitment to the team. This type of training is usually completed at or just prior to the initial or start-up stage, when team members need to clarify which skills they must learn to function effectively. The technical training plan is prepared jointly by a team member and his/her supervisor or manager. A second plan is put into effect six months later and is usually prepared by the team member and the facilitator or team leader. During this planning session, the team leader's role is to focus the team member on what makes sense for both the team and the individual. This means helping the team member think through such questions as: if your team is going to be as effective as it can, what new responsibilities do you need to take on; what skills do you need to learn; and what tasks do you need to master? Pursuant to this section of training, both parties must agree on how the team member will learn these new skills, and what their resources will be. For instance, will it include on the job training, in-house or outside training sessions, video presentations, workbooks, equipment manuals, etc... The trainer must decide on the materials they feel will be most helpful and conducive to learning. A needs analysis must be conducted prior to the training in order to determine which devices will be used. At the second stage of the training session, the team member and team leader/facilitator must review the communication and leadership portions of the training. At the third stage, the team member presents his or her plan to the team. At this point, the team discusses the impact of each member's plan on the whole team's responsibilities. These plans represent a commitment, not a rigid restriction. It is crucial that the facilitator, the team, and the individual share responsibility for

activating all the individual plans, and for altering them as necessary.

Technical training usually is a mix of formal classroom instruction, on-the-job training and, when the team is mature, member-to-member tutoring. Basically, technical training varies according to the specific tasks of each team.

Work teams master a broad range of skills in order to function effectively within the team. Their roles change significantly from that of an individual employee to that of a key link in the chain. It must be noted that a majority of firms that are using some form of TQM are using work teams. However, most of the teams rely on supervisory personnel for the selection of team members, planning the work schedule and other areas reserved for management. In some instances, this type of structure may be conducive for organizations that are not ready or simply do not need completely autonomous work teams.

Although the results are not conclusive with respect to work teams and organizational success, teams can provide firms with a diverse range of skills and perform work that was once reserved for management personnel. One thing is certain, the move to work teams requires extensive training and a strong commitment on the part of the firm (Orsburn, et al., 1990).

4.3 Conditions for Team Success

According to Hoevermeyer (1993), there are several reasons why a firm should use teams: in the context of total quality, an effective team frees up the manager or facilitator from being involved in the day-to-day details of the group's work; through teams, employees learn how to take control of their job and do what needs to be done without necessarily obtaining supervisory approval; teams can provide more timely and appropriate customer service by empowering employees to take the necessary steps in order to meet or exceed customer expectations. In a team environment there tends to be a higher level of productivity and morale and a certain level of pride in both the job and the company. Effective teams understand the value of working together instead of against each other because the output of the group is a reflection of each individual within the team. This type of atmosphere eliminates barriers between teams, within departments and between individuals. As a result, the entire organization functions more effectively and there is an environment that is conducive to TQM.

In order to have successful teams there are certain characteristics that must be present. A study conducted by Hoevermeyer(1993), indicates that there are five areas of team effectiveness.

4.3.1 Team Mission

A team mission provides individuals on the team with important information. For example: why the team exists and what it contributes to the department and to

the company as a whole. It is easier for the team to do its job if it knows the objectives -why they are doing the job. A team mission helps orient the team as to how their role has an impact on the department's mission and in turn, on the organization's mission. An organizational mission becomes meaningless for the team members if they cannot develop some type of inter-relatedness. This allows team members to understand the importance and positioning of his/her job within the organization.

A jointly developed and agreed upon mission tells everyone on the team why the team exists, where it is going and why it is going that way. The team mission gives team members something to hold onto when it seems that everything around them is changing. And, if it's lived on a daily basis, it inspires people to do their best to accomplish the team mission and the organizational mission. In essence, the team mission is a building block in the organization's mission (Hoevemeyer, 1993). This mission statement should be customer-focused, reminding everyone that the team exists to serve the customer. Without the customer, of course, the team ceases to exist.

4.3.2 Team Goals

All team members should be committed to establishing team goals that allow them to measure their progress in attaining those goals. Goals should be supportive of both the team's mission and the organization's mission. It is crucial that employees have clear, specific goals against which their bosses can measure them. Without goals

it is difficult, if not impossible, to tell someone how well, specifically, he or she is doing. To most people, that lack of concrete feedback is frustrating.

4.3.3 Empowerment

In an empowered environment, each person on the team has confidence in the team's ability to achieve its mission. Through empowerment, teams and individuals have the authority, the responsibility, and the accountability that they need to get their jobs done without necessarily obtaining approval. The red tape is eliminated but, empowerment also means providing every team member with the knowledge, skills, information, resources, and support that are needed for doing the job well. Empowerment means giving people credit for being able to think, reason, and plan and giving them the power and freedom to act accordingly (Petrini, 1992). There is a certain element of trust that is placed with employees when empowering them. Team members now have the capacity to respond more quickly to customer inquiries and resolve problems faster. Although employees take the initiative in resolving customer complaints, there has to be a limit as to what the individual can do. When uncertain, they should consult the team facilitator for guidance. This type of consultative process will create a positive work relationship not only for the team member and facilitator but, for the entire organization. Customers will have their inquiries and problems solved efficiently and rapidly with the help of team members. When necessary, with the expertise of the team leader or facilitator.

4.3.4 Communication

There must be a strong level of communication between the team and its' leader or facilitator, amongst team members and among all teams in the organization. Everyone should make a concerted effort to communicate honestly and openly without fear of repercussion for expressing the truth or one's opinion. Individuals that do take the initiative to make communication a focal point should be positively recognized for this type of behaviour. Information can be obtained from team members, the leader or the organization. The primary objective with open lines of communication is to bring problems to the forefront and resolve problems as quickly and efficiently as possible.

4.3.5 Positive Roles and Norms

Effective teams assign work based on the strengths of each team member-- even if that work is not in their job descriptions. Team members can help each other work on their individual areas of weakness while taking advantage of the expertise of their fellow team members. Team morale increases when people understand the roles that contribute to an effective team. i.e cooperation, rather than competition.

Chapter 5: Unions in the Context of TQM

Although some TQM programs have gained wide acceptance by all players, there is one player that could potentially be an impediment to the successful implementation of a TQM program: the union. Total quality has created scepticism on the part of unions because of management's failure to consult and inform the union about the reasons for introducing the plan. Often, union leaders fear that the introduction of total quality techniques will lead to the elimination of union jobs. What they have found in the past is that total quality means an increased workload, in less time, with fewer personnel. Often, the unknown has instilled a fear with most union members (Interview with Union Representative, 1993).

5.1.1 Union Acceptance

Union leaders stipulate that in order to gain union acceptance, it is critical that organizations provide statistical and technical data that support the introduction of some form of quality initiatives. This would enable union leaders to sell the merits of TQ to their members and also discuss the importance of their role in the successful implementation of TQM in a unionized firm.

American examples

For the U.A.W. (United Auto Workers), quality has become a way of life. The U.A.W. has been a major force in changing auto manufacturer's attitudes about quality as being only management's prerogative to acceptance of the idea that quality can only be achieved when workers have a genuine voice in decisions that affect the quality of products and services. The U.A.W. is proud of its joint quality programs negotiated with the auto manufacturers. Income and job security provisions and education and training programs negotiated by the U.A.W. are critical factors in improving quality. (Beeber, 1993).

Many unions have understood that quality and productivity are essential for survival. The United Steelworkers (U.S.W) took a revolutionary approach in contract negotiations covering 48,000 workers. The union members eased up on wage demands and proposed a bold new partnership with management. In return for job guarantees and no concessions, the U.S.W offered to expand the shop floor, teams, and worker empowerment systems in order to boost productivity.

Canadian examples

A Quebec firm that adopted TQM and successfully implemented the program in conjunction with the help of the union is the "Usine Saint- Maurice", an Alcan plant located in Shawinigan. They looked to TQM as a way of remaining competitive and as a way of staying alive. After several plant closures and the threat of folding their operations, they knew they had to change the way they did business. In 1990 they

met with the union in order to make it aware of the organization's dire situation and their strategy. It is important to note that the union was consulted and asked for feedback before any type of decisions were made. After consulting the union, the company asked them to provide their own ideas and solutions on how to make the firm more competitive and what role the union could play in helping it. The union not only gave the firm solutions, but they also took it upon themselves to sell the idea to their members. Union members accepted the joint management-union proposition and the plan took off. Today, all employees are autonomous and receive extensive training in all quality aspects. In the past, the union had been rather militant and resistant to various changes but, through a concerted effort to honestly disclose the firm's intentions and why it wanted to make changes, the union was on board from the beginning (Seminar A.P.R.H.Q. and Association Québécoise de la Qualité, 1993).

The 1990s have been plagued with a recession and serious job cuts as a result. The shift in union demands comes with the knowledge that the efficient production of high quality goods is essential to remain prosperous (Baker & Buell, 1993). It is clear that in order to survive, labour and management must move beyond their largely philosophical perspectives regarding representation so they can explore practical solutions and find ways to work together to remain competitive. There must be cooperation and conciliation from both labour and management, without it, quality programs are destined to fail as both sides forget why they set out on a TQM journey in the first place.

It is interesting to note that unions are not necessarily opposed to quality. What

unions are opposed to is the failure of firms to involve the union in all facets of a quality program. After all, they are the ones performing the job. Why not ask the employees what is needed to improve business processes and services?

The literature with respect to the union's involvement in TQM is rather scarce therefore, an interview was conducted with a Union Representative who has had several negative experiences with firms implementing TQM. The interview was used as a tool to provide practical insight into how the Union perceives their role in the transition to quality, the importance of teams and training and, the conditions that must be met in order to successfully involve the union in the implementation of TQM.

5.1.2 Interview with Union Representative

What do you think the Union's role is in the implementation of TQM?

The Union must play an active role. They must be involved from the very beginning. From the initial planning stages to the implementation phase. There must be an agreement between the employer and the union. If the union is not involved, the program will not work. The company may have good intentions, but if the union is not involved, the program will eventually fail because the company will never have received the necessary support from the Union. Participation is the key word. The firm must ask the union how they perceive themselves as fitting in with the big plan. In addition, the union must also take a proactive role in designing the TQ program. Their input is essential. After all, they are the ones who do the job on a day to day basis.

5.1.3 Why TQM fails in unionized settings

Why do you think a lot of TQ programs fail?

Failure on the part of some firms to involve the union and its members. Often, the rhetoric and the application of the plan does not come to life. There are so many promises made and often a lot of these things do not materialize. It is imperative that organizations stick to their plan and not make empty promises.

Often there is insufficient training with respect to the TQM program and the employee's role in the "big picture". Where does the employee fit in?

Often, TQM, means reduction in personnel and the possibility of changing jobs. The unknown creates havoc and can impede the successful implementation of TQM. When employees are asked for their input, whether it be their individual input or as a member of a team, the firm should listen to their solutions, not brush them off. If you want employees to participate make them feel that they are an important piece of the puzzle. You need to have confidence in employees.

Employees want things to change. They know that in order to keep their jobs they have to be more competitive and produce higher quality goods and services in the marketplace. They are willing to contribute and make things work but the companies have to start listening to them and their solutions, i.e. if a company wants to introduce new machinery then they should use a pilot group of employees and experiment instead of transforming the entire plant and finding out months later that it won't work. This type of scenario is often seen by the union and frustrates the employees and leads to a complete lack of confidence.

Careful planning is critical. Ad hoc solutions implemented in a unionized environment will certainly lead the organization towards a dead end path.

As well, middle level managers often sabotage the program. Their role is greatly different than it was in the past. They are no longer bosses but facilitators. This is extremely difficult for them and for their employees with whom they've always had a "boss-employee" relationship. It is hard to change this overnight.

A TQM strategy should not be looked to only in a time of crisis. The economic crisis has forced many firms to rethink their strategy for the future. If TQM had been adopted prior to the crisis then maybe a lot of jobs and people's livelihoods would have been saved. TQM should not only be a strategy to increase product and service quality but much more. It should be a way of doing business, a way of improving our lives, making Quebec a more competitive marketplace, etc..

5.1.4 Union perception of teams

How do you perceive teams?

Teams are essential and I think they can be a very powerful attribute within the organization. A better way of working and coming up with joint solutions. I think they should be made up of various employees with different skills and expertise so that the best possible solution can be achieved. However, the drawback I have seen is that it is a lengthy process that uses a lot of valuable time. Therefore, there must be an extensive training program.

5.1.5 Union perception of training

How important is training for the union?

Training is extremely important. I feel a lot of firms do not take advantage of training their employees. I think all employees want to improve their skills and knowledge, make themselves invaluable to the firm and also increase their self-esteem. Training should not be given on the weekends or after hours. It should be given during working hours. There is always a way to maintain service or production. I think there should even be a law that forces employers to train and upgrade their employees' skills.

A last remark - TQM can be successfully implemented in unionized environments if firms make the union and their members active partners from the very beginning. A hint for employers, don't adopt TQM because you are desperate and feel that this is the best solution. Do it because you want to improve how you operate your business and you want to be competitive in the marketplace. It is not a "last ditch effort" so to speak.

Unfortunately, the literature is not extensive with respect to unions and TQM. However, the results of the survey suggest that firms that involve unions from the very beginning, will encounter less resistance. It is imperative that the objectives and goals of the program be clearly outlined. In addition, what the union's role will be and how they affect the entire program.

There are several points that seem to be necessary in order to get the union on board:

- Get them involved in all aspects of planning while getting them to participate in decisions regarding the program. Some successful unionized firms get unions involved at the initial planning stages.
- Get them involved in all facets of Human Resources and employee relations.
- Don't undermine their input and suggestions. Take them seriously and implement them, when feasible.
- They must be consulted and must have a say in how the program is going to be run in order for TQ to be successfully implemented.
- Firms that are not willing to involve the union and its members in all aspects of TQ will not have the union's cooperation and will most likely encounter union resistance to change.

In return, unions can also offer certain advantages to management.

- Fewer grievances and better labour relations
- The resolution of minor irritations because of better communication and trust between the two parties
- By getting the union on board there may be less resistance to changing methods or technology that support the quality program
- Increased motivation, less absenteeism, lower turnover
- Improved quality of products and services

The key to getting the union on board is to be honest and make the firm's true objectives known at the outset.

Chapter 6: Research Propositions and Methodology

6.1 Research propositions

The propositions below were designed pursuant to the initial literature review.

1) *The more a company makes use of compensation programs in its' general management philosophy (degree of involvement in TQM), the more the likelihood it will lead to increased organizational performance or, a better total quality outcome.*

2) *The more a company makes use of teams in its' general management philosophy (degree of involvement in TQM), the more the likelihood it will lead to increased organizational performance or, a better total quality outcome.*

3) *In a unionized environment, there is going to be stronger objection to individual or team incentives, thereby limiting the potential success of TQM. (Unions will accept a gainsharing and/or profit sharing plan more than individual and team incentives).*

6.2 Tools Used

The methodologies utilized for the data collection were (1) a semi-structured interview and, (2) an extensive literature review. The semi-structured interview was chosen because it is an excellent tool for obtaining qualitative information and it is a dynamic process that allows the interviewee to elaborate and provide greater detail.

The questions were designed pursuant to a literature review and initially focused on areas that were of interest to Bell Canada. Namely, large service firms, that were using TQM, team awards and/or profit sharing. For the purposes of this study, additional facets were included: compensation in context of TQM, training and teams in the context of TQM and, the union's involvement in TQM.

In a second phase, the qualitative data were transformed (via coding) to quantitative data which enabled some limited quantitative analyses.

6.3 Target Group

In order to make a valid comparison with Bell Canada, the firms chosen met certain criteria:

- Telecommunications, service and manufacturing industries;
- Those with experience in TQM and reward schemes; the initial literature review provided case studies with firms using TQ;
- Firms that were both unionized and non-unionized.

6.4 Instruments used

The objective of the interviews was to gain practical insight into what works best, for the firms chosen. It must be noted that the difficulty with this type of interview is that it can be rather lengthy and can take approximately one and a half to two hours. Some of the questions were structured while others were open-ended and less structured. Therefore, because of the nature of the study, all interviews were conducted by telephone. Many interviews were conducted in the United States and Canada.

Qualitative Questionnaire

Initially, qualitative data were obtained via structured interviews. The original questionnaire/semi structured interview for the first 17 firms is attached in Appendix I. The initial questionnaire was condensed and an edited version was used to collect information for the additional 13 organizations (See Appendix II).

It's content which was validated by 2 experts and Bell Canada personnel includes the following: the first question tried to establish whether the firm was using some form of quality program. If so, the respondent was asked to describe the type of program in as much detail as possible. This would allow for a more in-depth analysis of the programs used by each organization. There was no comparative analysis between firms, however, organizations that are looking to incorporate quality into their strategic framework could model their program on these successful firms.

An important facet of a successful TQM program is the level of senior

management support. Research suggests that it is crucial to have top management support for your quality program, without it, the entire program is destined to fail.

The third question addresses the compensation issue. Whether a firm uses any form of compensation program to support their quality initiatives. The objective was to see what most firms were using. Whether it be profit sharing, gainsharing, individual or team awards, or any other form of monetary program. The respondents either indicated that they had no reward plan or if they did, the type of plan.

In addition, the size of the reward. What was the average payout, between \$0-100, more than \$100, more than \$500... Again each respondent indicated what the payment was. In some cases, where the payment was based on a fixed percentage of salary, it was difficult to give a precise amount.

The frequency of the payout - how often rewards are given out to employees. (Monthly, quarterly, annually, driven by a goal, or other).

Even though this study did not look at the motivational factors behind rewards, it would be interesting to see if frequency of payout would have an impact on organizational success.

Question 4 addressed the issue of work teams or self-directed teams.

The respondent could indicate whether they were using a self-directed work team and, if they were not, what type of team they were using. This again was open-ended and allowed the respondent to give as much detail as possible but, the objective was to categorize the teams into one of the following: problem solving; project teams; work teams (or SDT depending on the level of autonomy). This

question would try to establish the most popular type of teams and their level of autonomy.

Questions 5 & 6 dealt with training: the type of training given to employees and who the training is given by (internal or external trainers or consultants). Types of training were suggested but if it didn't fall into one of the categories, the respondent could give more detail.

Question 7 was originally developed to tabulate the extent to which organizations pay for cross-training skills. Whether the acquisition of the different skills within a team leads to compensation.

Question 8 asked the respondents to rate how the organization measures firm performance. In the past, the type of industry that used TQM was mostly manufacturing because of the facility in measuring defects. For example, on an assembly line, the number of defective parts could easily be counted and quantifiable measured could be developed to improve the processes. One would assume because of the nature of service industries that measuring defects would be more complex, however, many service firms are using TQM and are measuring the effectiveness of their programs using both operational and financial measures. In service-based industries whether customer and employee satisfaction are valued and measured through surveys is one of the key elements in operational measures. Again, respondents were free to add any measures that were not mentioned.

Question 9: If the firms were using monetary rewards, the level of the organization that received rewards. Initially, when the study was undertaken, the level of the organization that received a monetary reward was important because before embarking on a plan, one wants to know what works best for other companies and how are they paying individuals within the firm.

Questions 10 & 11 dealt with the type of employees covered by the plan. Whether they be management or executives or non-management employees. Who are plans being designed for?

Question 12: How long the plan has been in effect. This, again would be interesting for a firm implementing TQM. Is there a certain length of time that a program must be in effect before there are results?

Question 13: Asked respondents to specify the type of industry specialization i.e. service, manufacturing or both in some cases. Is there a difference when trying to implement quality programs in a service industry when compared to management, are there more manufacturers than service firms using quality?

Question 14: The size of the firm and the number of employees covered by the plan are important. Is TQM more easily implemented in a smaller or medium sized firm than in a larger firm (14a).

Question 15: Whether within the last 2 years, firm performance had decreased, remained the same or increased pursuant to the introduction of TQM. The objective was to find out if there had been an increase, not to get precise figures. This question would be used to measure increased original process (one of the primary dependent variables).

Question 16 ties in with Question 9: the criteria used to measure increased performance. What the firm values in terms of measuring original performance.

Question 17: Whether the firm shared information pertaining to firm performance and results with their employees and how often, was also an important indication of the firm's commitment to qualify and its willingness to get employees involved in the daily activities of the organization. Sharing information creates a sense of attachment and commitment to the firm.

Question 18: The reasons for introducing the plan. Stay competitive, change the original culture part of new strategy, etc... Why do people adopt TQM?

Question 19: The length of time between the achieved goal or objective and the payout..... How often are employees paid?

Question 20: Whether the organization is unionized or not. Does this have an impact on the successful implementation of TQM?

Quantitative Questionnaire

In a second phase, the qualitative data were re-coded in order to allow quantitative analyses (See Appendix IV - Coded Questionnaire). Details about the operationalization of the data are provided below.

The first question asks whether there is a recognition plan (non-monetary) or not. Research has indicated that not all plans are monetary in nature. therefore, it is interesting to note how many firms are using recognition plans. The second question asks whether there is a monetary plan or not. If so, what type of plan is it. Question 3: profit sharing and gainsharing, individual, team or other form of monetary incentives, or a combination of the above.

The size of the reward is also an interesting factor to consider. (Question 4).

Who is eligible under the plan (management or non-management) (Question 5).

What type of performance metrics are used: operational, financial or both. What is important to the firms in terms of measuring continuous improvement? (Question 6 & 7).

How involved is the firm in the plan? Is there a very high level of involvement, medium level, no involvement? (Question 8).

Question 9: degree of success since the introduction of the plan. (Has it decreased. remained the same or increased).

Is your plan supported by senior management and how would you rate their

support? Research indicated there must be a high level of support for any quality program to be successful. (Question 10).

If there are monetary rewards - what is the frequency of the payout (driven by a goal, monthly to quarterly, annually.....(11).

Questions 12 & 13 - deal with the use of teams and the type of teams used.

Question 14 - addresses the autonomy of those teams.

Question 15 & 16 - deal with training and the level of involvement of the firm in their training programs. (From low to very high).

Question 17 - the level of the organization that receives rewards. Is it for the entire organization, a specific facility, work group or individual?

Question 18 - How long the plan has been in effect.

less than 2 years, from 2 to 5, from 6 to 10, more than 10...

Question 19 - The industry you specialize in: service, manufacturing or both...

Question 20 - The number of employees covered in the plan.

from 0 to over 50,000 employees.

Question 21 - How often information is communicated to employees from a daily to weekly basis, monthly, quarterly, annually....

Questions 22, 23 and 24 - deal with the issue of unionized firms. If the plan does cover unionized employees, has the union accepted the plan and how involved is the union in the plan, (is there a low level of involvement, medium, or high)?

Note: See Code Book attached - Appendix IV

6.5 Statistical Procedures

Given the small sample size ($N = 30$), only univariate analyses (frequencies and means) are reported. When correlations are reported, the reference is to Kendall's coefficient. The Kendall coefficient is used to measure the association between two ordinal variables that are either concordant or discordant. Variables are concordant if the member that ranks higher on one variable also ranks higher on the other variable. Observations are discordant if the member that ranks higher on one variable ranks lower on the other. The magnitude falls between (-1 and +1), and the stronger the association the larger the absolute value of Kendall's coefficient. The significance chosen for this study is: p is smaller than, or equal to .05

All statistical analyses were performed using the SPSS for Windows Software package.

Chapter 7 - Results

7.1 Summary of overall Results

Consistent with findings reported in the literature (Blackburn, 1993), the results indicate that there are practices that appear to effectively support a TQM culture and contribute to excellence in quality management: communication; training; rewards that are both financial and non financial; top management support; and a high level of firm involvement (See Table 22 on page 114 which summarizes the most significant findings for variables that have an impact on organizational success). Most notably are: the level of information sharing with employees (.29); the level of involvement in training (.29); reward and recognition plans (.40) and, the level of top management (.36).

Additional components that are correlated with organizational success are: whether the firm has a recognition plan in place (.50) for manufacturing industries; the size of the reward for service firms (.77); the level of top management support within the service firms (.69); the level of involvement in training for manufacturing firms (.49); information sharing for service firms (.46) and the level of firm involvement in TQM (.51) for service industries (See Table 23 page 115).

One of the most important questions for the purposes of this study was the rate of success since the introduction of the quality plan. Seventy-nine (79) percent of interview respondents indicated that since the introduction of the plan, organizational performance has increased (See figure 1). The shortcoming of this ranking is that it does not quantify the results and is based on the respondent's

Table 22
Parameters of Organizational Success
(Entire Sample)

	Kendall Coefficient
Information Sharing	.29
Level of Involvement in Training	.29
Reward and Recognition	.40
Top Management Support	.36

Legend: The most important findings are the size of the reward and top management support. Information sharing and training are also important.

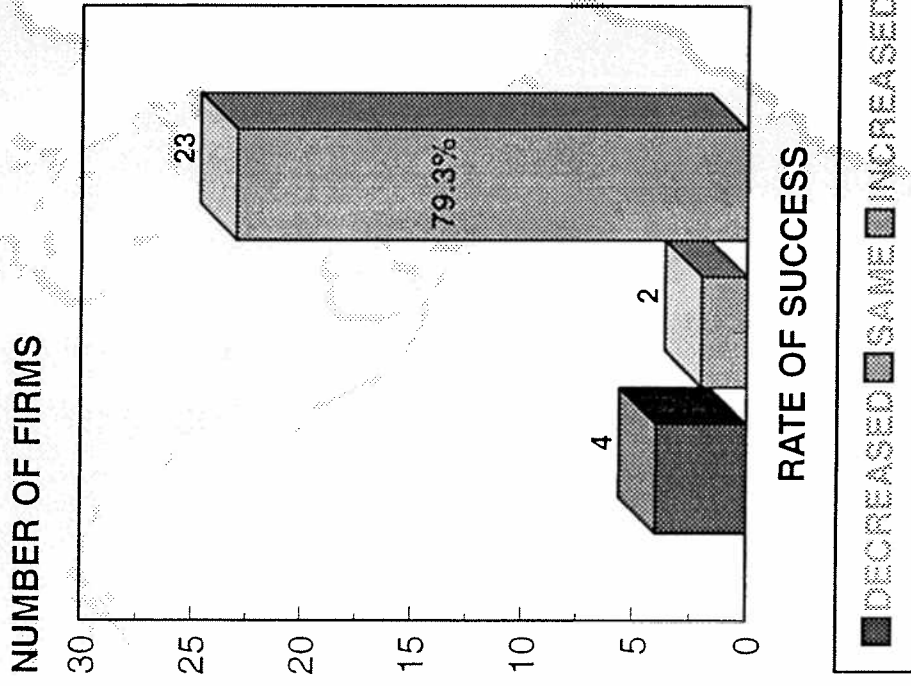
Table 23
Manufacturing versus Service Firms
(Organizational Success)

	<u>Manufacturing</u>	<u>Service</u>
Training	.49	N/S
Information Sharing	N/S	.46
Reward and Recognition	.50 (Recognition)	.77 (Size of reward)
Firm Involvement	N/S	.51
Top Management Support	N/S	.69

Legend: Results reported are Kendall's coefficient

RATE OF SUCCESS SINCE INTRODUCTION OF PLAN

Figure 1



79,3% of interview respondents indicated that since the introduction of the plan, organizational performance has increased.

*The shortcoming of this ranking is that it does not provide a precise figure (i.e., increased by 5%, 10%, etc.)

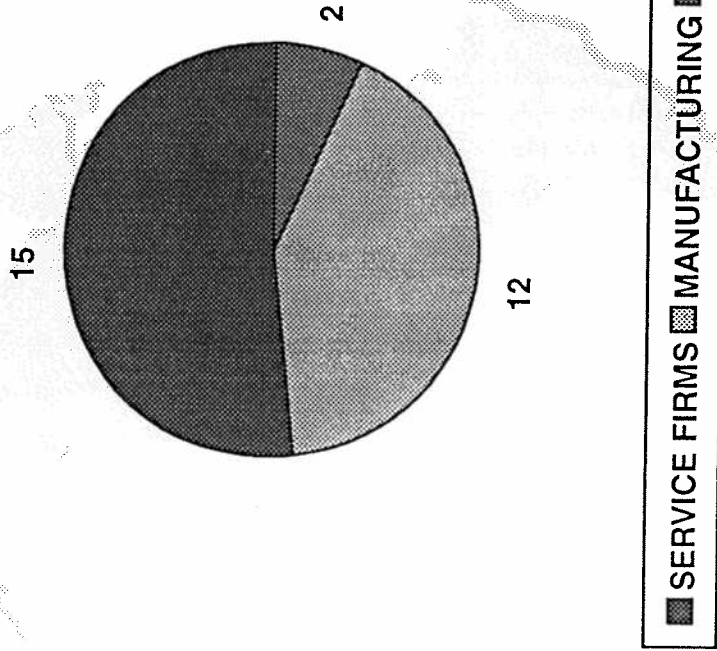
In the past, the majority of organizations that used TQM were manufacturing firms. It is interesting to note that 15 of the 30 firms interviewed were service and/or telecommunications, 12 manufacturing and 2, a combination of service and manufacturing (See Figure 2). Therefore, industry specialization does not seem to be an important distinguishing factor for the purposes of this study when implementing, or using TQM.

7.2 Communication and Information Sharing

Firms should have communication that is top-down, horizontal, lateral and provides employees with organizational information pertaining to the organization's corporate vision and why the organization has adopted quality. Information sharing that is frequent, honest, and open is consistent with a quality culture. Of the thirty firms interviewed, 16 or 53.3% shared information daily to weekly, 10 monthly and 4 quarterly (See Figure 3). Therefore, the majority of firms have shown a certain level of commitment to quality by sharing information more often, than less. The results of the study indicate that information that is shared more often with employees has an impact on organizational success for the entire organization (.29) and in service industries (.46). The tendency to communicate information had an impact on the frequency of the payout (.35). Those organizations that shared information more often gave out rewards on an annual basis. A higher tendency to communicate information with employees also affected the level of involvement in training (.47) for service industries.

INDUSTRY SPECIALIZATION

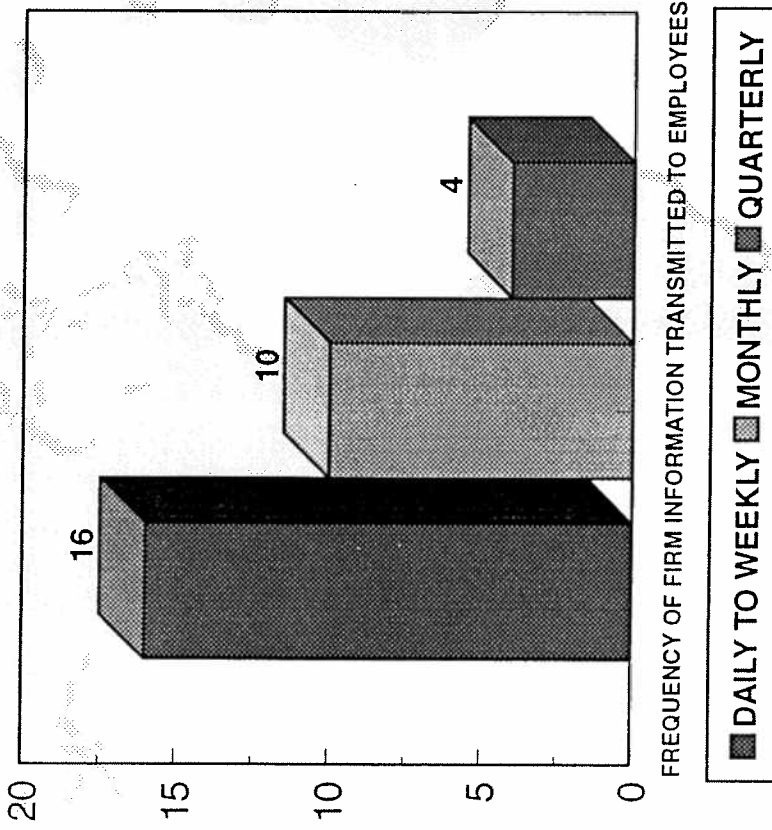
Figure 2



It is interesting to note that fifteen (15) of the thirty firms interviewed were service and/or telecommunications, twelve (12) manufacturing and two (2), a combination of both service and manufacturing

INFORMATION TRANSMITTED TO EMPLOYEES

Figure 3



Of the thirty firms interviewed, sixteen (16) or 53.3% shared information with their employees on a daily to weekly basis, ten (10) monthly and four (4) quarterly.

* NOTE: None of the firms interviewed indicated that they gave out information annually.

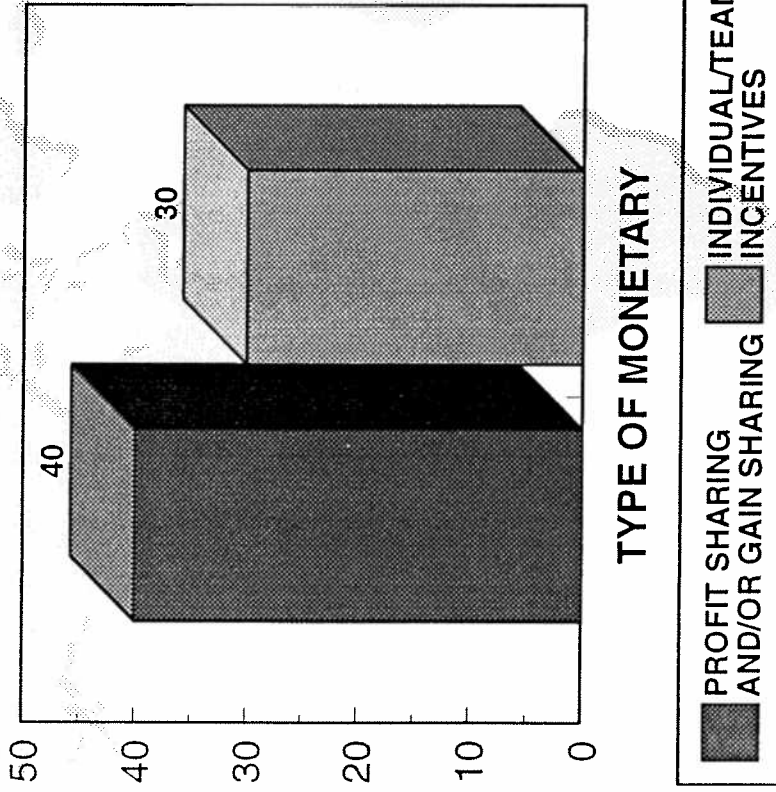
7.3 Reward and Recognition

In order to maintain a TQM culture there must be a reward and recognition plan that supports continuous quality improvements. The most frequent type of reward program used by the firms is a profit sharing and/or gainsharing plan (See figure 4). Recognition rewards provide employees with immediate feedback for outstanding performance and create a certain level of motivation and commitment to the organization. Sixty-nine (69) percent of the firms interviewed indicated that they had a recognition program (See Figure 5).

For the entire sample, there was a tendency to have a recognition plan when there was more employees in the organization (.45). A factor correlated with organizational success was the size of the reward (.40). The larger the reward in service industries, the higher the level of organizational success (.77). Five (5) of the firms indicated that they gave out more than \$500 per employee, three (3) gave out between \$100-500 and three (3), gave out between 0-\$100 per employee (See Figure 6).

Figure 4

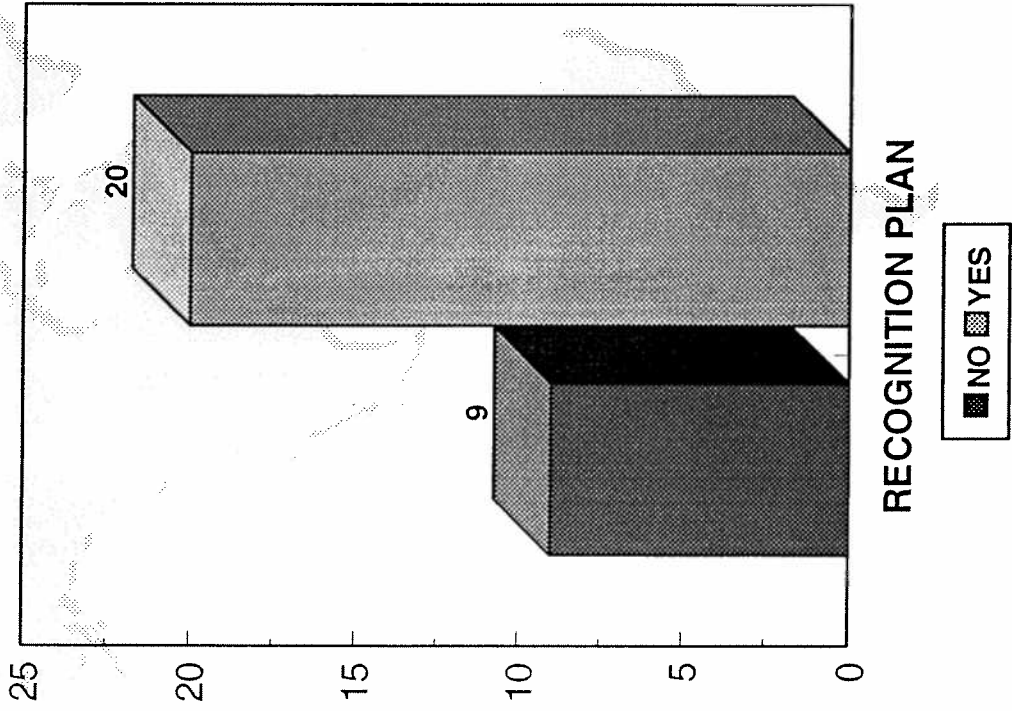
TYPE OF MONETARY PLANS



* Forty (40) percent of the firms surveyed indicated that they are using profit sharing and/or gain sharing while thirty (30) percent are using individual and/or team incentives.

FIRMS THAT HAVE RECOGNITION PLANS

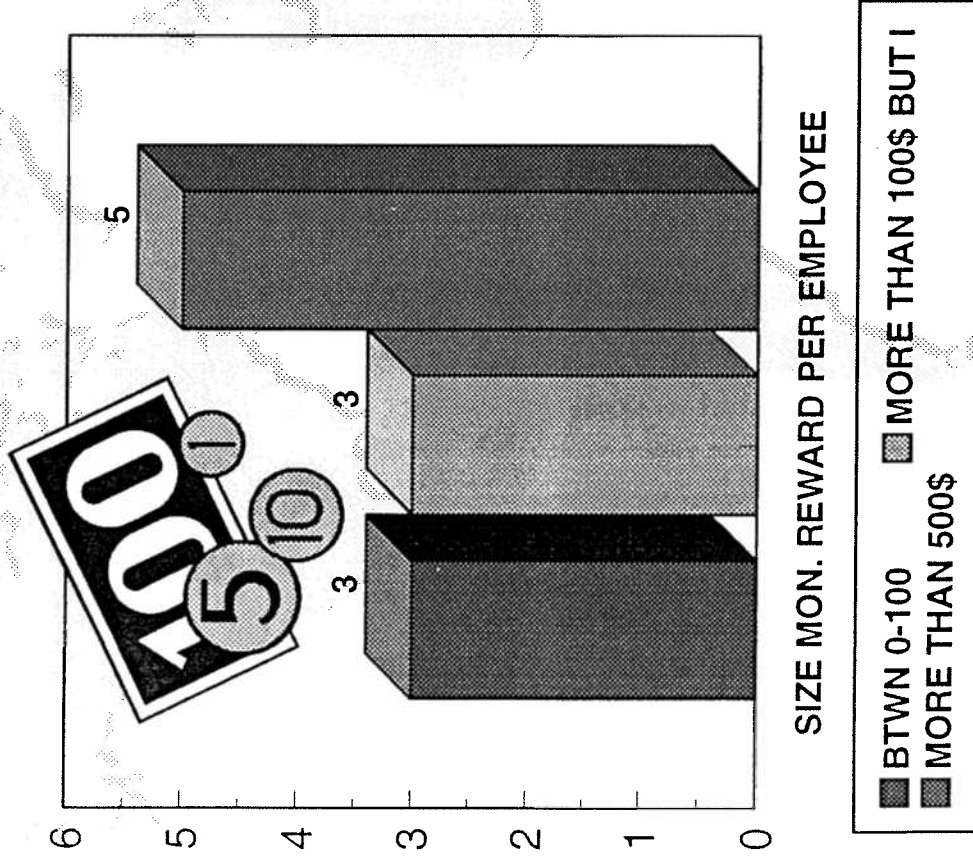
Figure 5



* Of the thirty firms interviewed, 20 indicated that they had recognition programs in place. This could include: symbolic tokens such as hats, T-shirts, caps, plaques, certificates, or in some instances, formal recognition by senior executives.

SIZE MONETARY REWARD PER EMPLOYEE

Figure 6



* Results indicate that there will be a higher level of organizational success when the size of the rewards is bigger. Five (5) of the firms indicated that they gave out more than 500\$/employee three (3) gave out between \$100-500/employee and, three (3) gave out between 0-\$100/employee.

7.4 Top Management Support and Firm Involvement

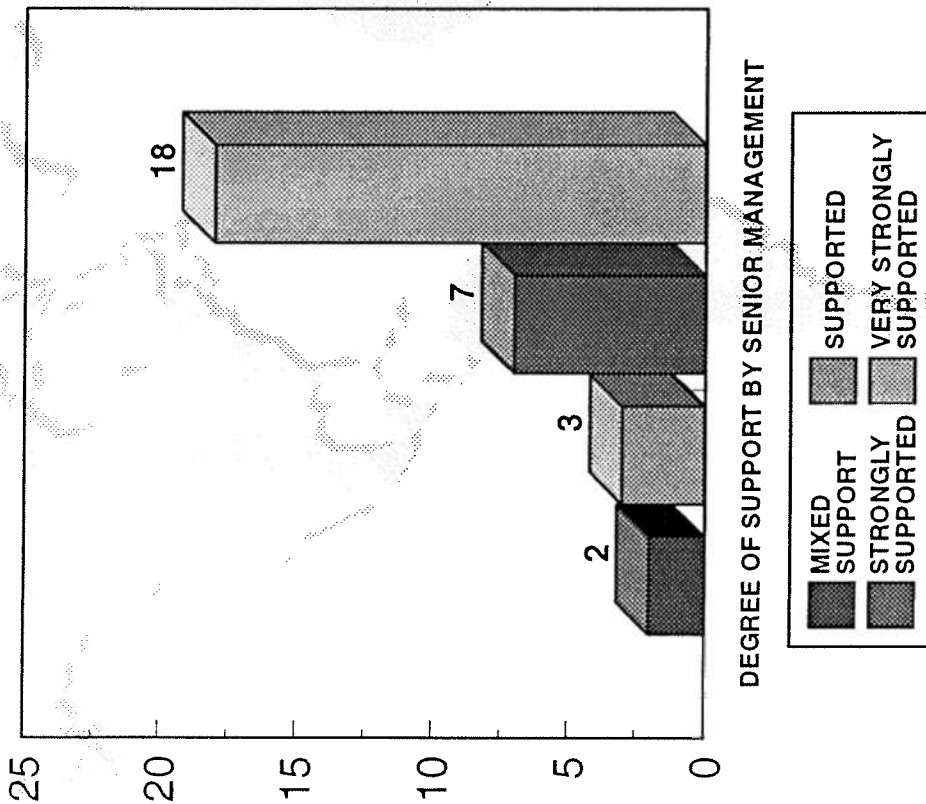
Top management support provides the infrastructure that is necessary to support the TQ culture. Without top management support, the entire program is destined to fail. Executives and Managers have to be the quality champions and be the leaders with respect to the vision, the tools needed and the communication support system. The majority of firms (18/30) indicated that their program was very strongly supported by senior management (See Figure 7).

Rewards that were given out organization-wide had a correlation with the level of top management support in service firms (.37). A team that was more autonomous usually had a higher level of top management support (.56). This was also found in both service (.58) and manufacturing firms (.67). In addition, firms that had a very high level of involvement in their quality programs also had a very high level of top management support (.77).

The level of firm involvement in TQM will also be a measure of the organization's commitment to total quality. Seventeen (17) or 56.7% of the firms indicated that there was a very high level of involvement in total quality (See figure 8). There are several factors that contribute to firm involvement. Union acceptance of quality was a strong indicator of firm involvement (.77). Top management support (.72) and team autonomy (.52), also had a very strong tendency to foster firm involvement for organizations and in service firms (.65).

SUPPORT BY SENIOR MANAGEMENT

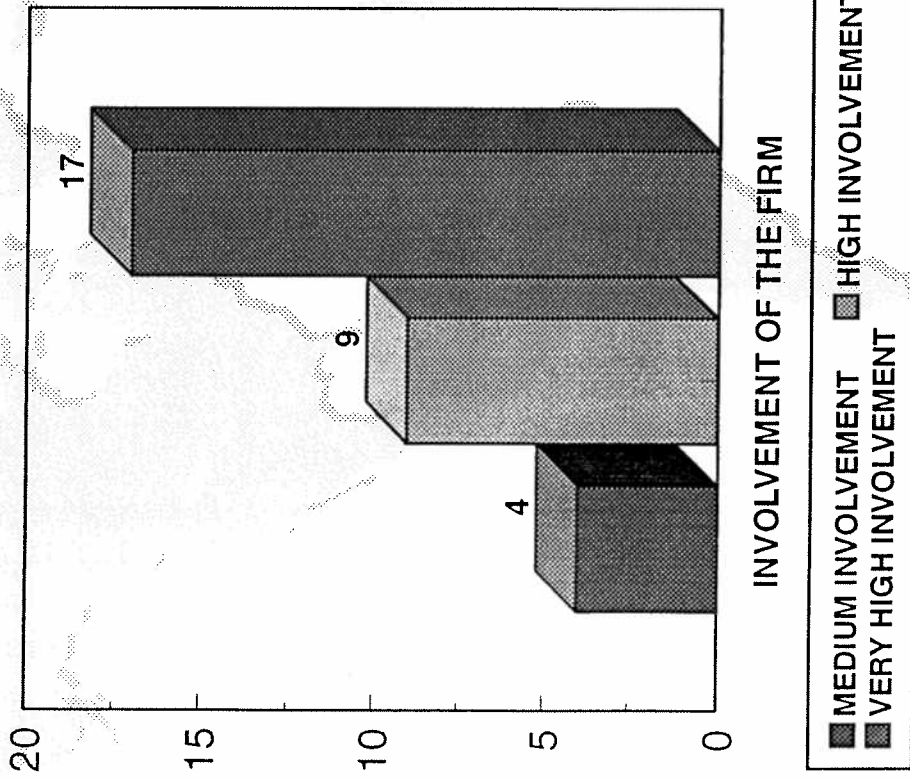
Figure 7



The literature strongly suggests that in order for any quality program to work there must be commitment and a high level of support from top management. They must be the champions of the quality initiatives. An overwhelming majority of firms (18/30) indicated that their program was very strongly supported by senior management.

Figure 8

INVOLVEMENT OF THE FIRM



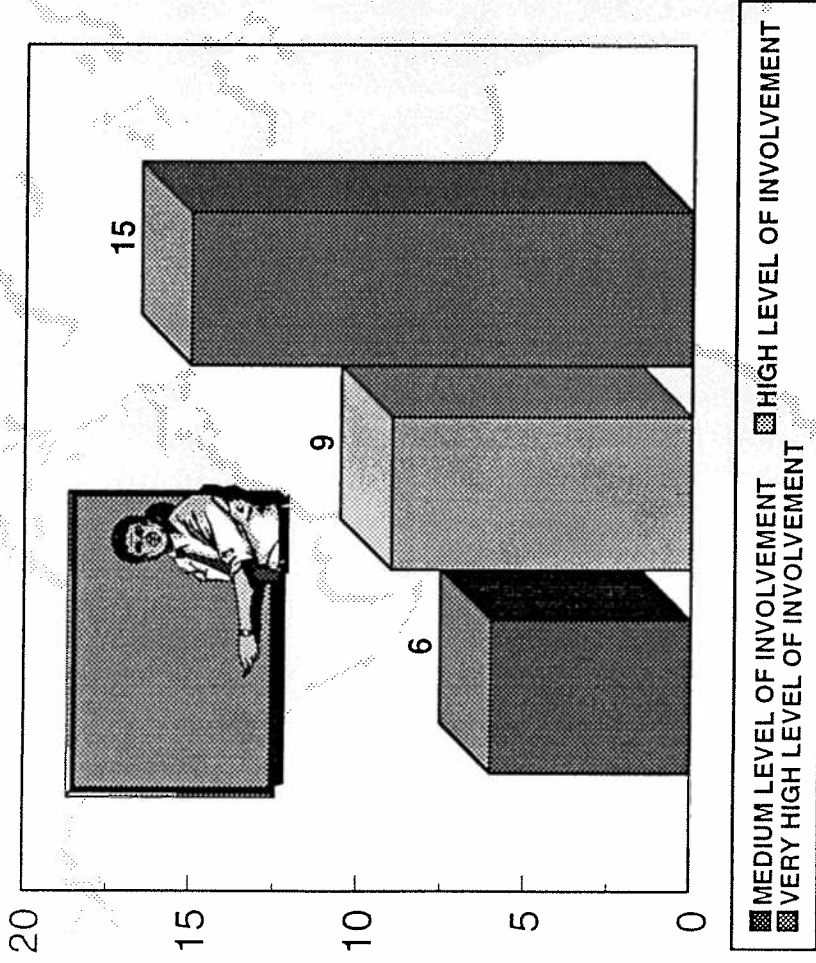
Firms were asked to rate their level of involvement in TQM. Seventeen (17) or 56.7% of the firms indicated that there was a very high level of involvement in total quality. Level of firm involvement is an indicator of the organization's commitment to quality.

7.5 Training

An organization that reorients its corporate mission and focuses on quality must be prepared for an extensive training program that will give employees the knowledge, skills and abilities to perform within a TQM culture. Interview respondents were asked to rate the level of firm involvement in quality training. More than fifty (50) percent indicated that there was a very high level of involvement in training (See Figure 9). Union acceptance of the quality plan, has an impact on the level of involvement in training for both manufacturing (.72) and service firms (.51). Most of the firms interviewed indicated that a high level of involvement in training was essential in order to achieve increased organizational success (.29). This result was also found for manufacturing firms (.49). A high level of involvement in training was also correlated with top management support (.49) in service firms. It also had an impact on the type of teams that were being used in service firms (.37). In those companies that are using some type of teams whether it be parallel, project teams or, semi-autonomous teams, there will be a need for a training program that will allow teams to develop the skills necessary to perform the work within more demanding conditions. There was a very high correlation between training and the degree of firm involvement in TQ (.39) for the entire sample and in service firms (.62). In organizations that have training programs, there must be a certain level of firm involvement in TQ. The two are interdependent and logically must exist simultaneously for quality initiatives to be successful.

RATE OF INVOLVEMENT IN TRAINING

Figure 9



Training is an essential component of success when implementing or using TQM: more than fifty (50) percent of the firms interviewed indicated that there was a very high level of involvement in training. Training was a key factor in organizational success (See results for entire sample).

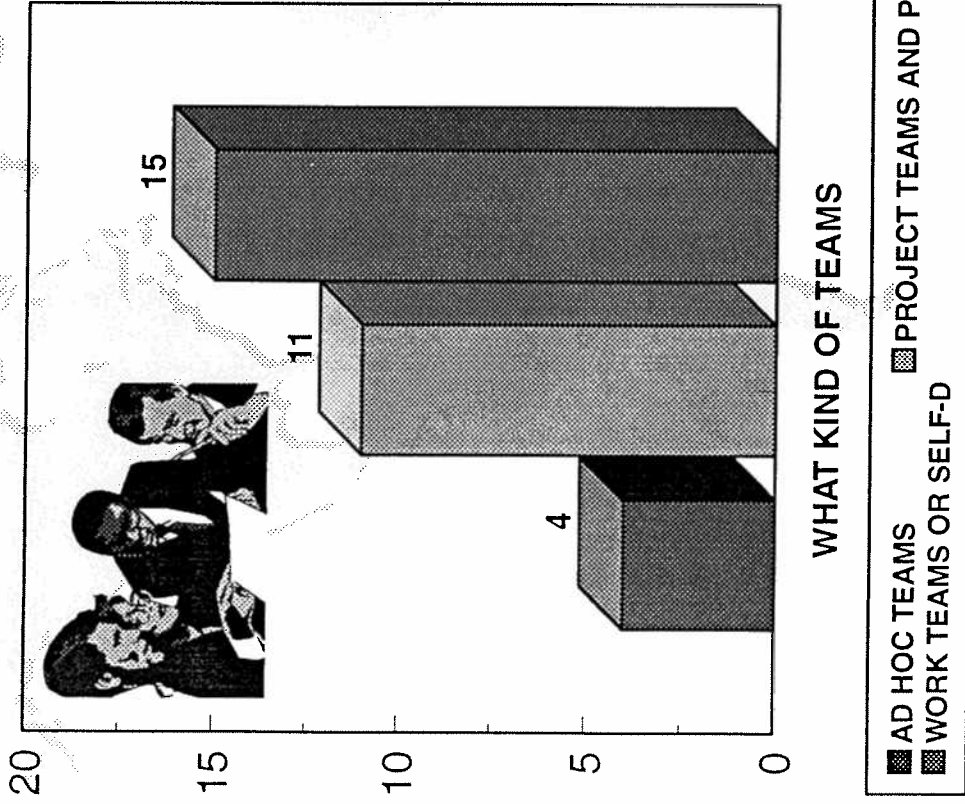
7.6 Teams

When organizations use a TQM program they usually use some type of team that fits in with the structure of the firm and is conducive to a quality culture. There are various types of teams that can be used with varying levels of autonomy. Fifty (50) percent of the firms interviewed indicated that they were using some type of work team that relied on a certain level of supervision (See figure 10). They were not completely autonomous teams that had no supervision. As discussed throughout the literature review, developing self-directed teams involves a lot of time and patience. Additionally, self-directed teams are not appropriate for all organizations.

Team autonomy had a very correlation with firm involvement (.52) for the entire sample and for service industries (.65).

Figure 10

KIND OF TEAMS



* The results of the interviews indicate that the type of teams that are most frequently used in total quality are workteams or self-directed teams (50%). Work-teams usually rely on little or no supervision and are autonomous in nature.

7.7 Comparative analysis of Unionized versus Non-unionized firms

It is interesting to note that before the initial study was undertaken, the researchers assumed that TQM would be more difficult to implement in unionized settings than in non-unionized. However, the results demonstrate that more than half of the firms interviewed are unionized and using some form of quality program. Seventeen of the thirty firms were unionized (See Figure 11). Of the seventeen (17) firms, 9 indicated that the union had accepted the plan whereas 4, indicated that the union had not accepted the plan (See Figure 12).

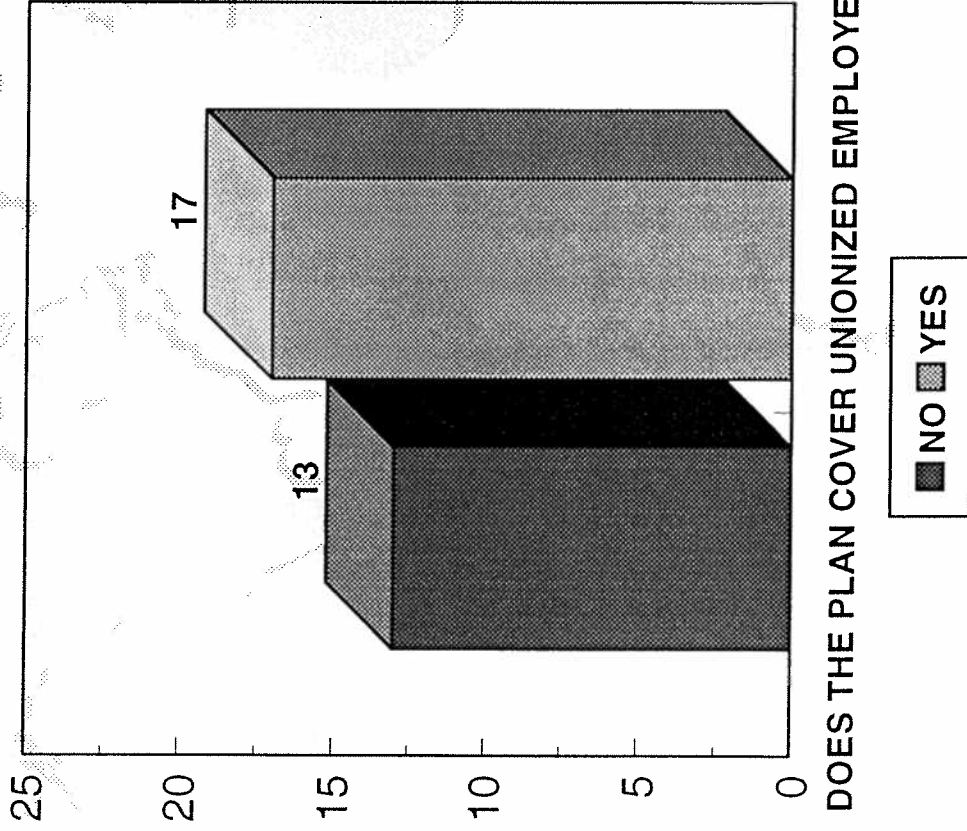
In unionized firms, the most significant finding was the level of top management support which contributed to organizational success (.42). Additionally, in firms that have a high level of team autonomy there is a higher level of involvement in training (.38). When an organization uses semi-autonomous teams, there will be a strong commitment to training because of the complex nature of autonomous teams. Top management support also had a very strong correlation with the level of involvement in training (.72).

Firm involvement had a significant correlation with the level of top management support (.74) and the level of involvement in training (.55).

The results of the interviews indicate that in order for a TQM plan to work in a unionized environment, the union must be an active participant and be highly involved in all facets of the implementation and planning phases. Five of the unionized firms indicated that there was a very high level of union involvement in the plan (See figure 13).

Figure 11

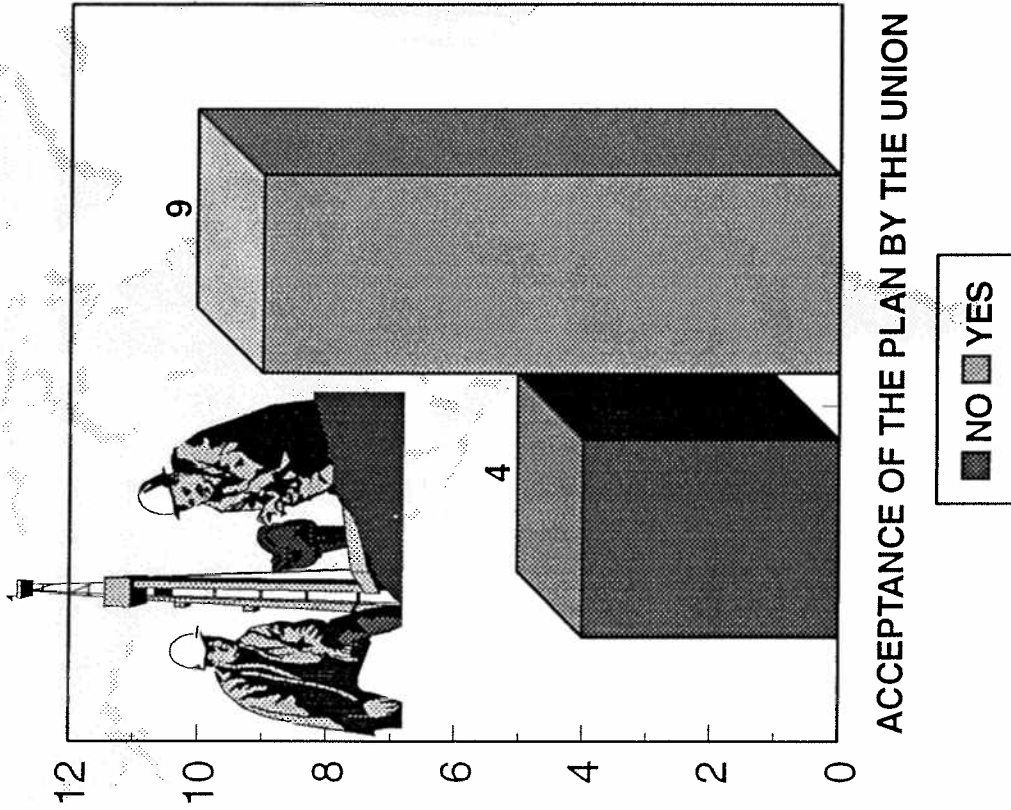
DOES THE PLAN COVER UNIONIZED EMPLOYEES



It is interesting to note that before the initial study was undertaken, the researchers assumed that TQM would be more difficult to implement in unionized settings than in non-unionized. However, the results demonstrate that more than half of the firms interviewed are unionized and using some form of quality program. An organization that intends to make the union active partners from the beginning will probably encounter less friction and less resistance to quality initiatives.

ACCEPTANCE OF THE PLAN BY THE UNION

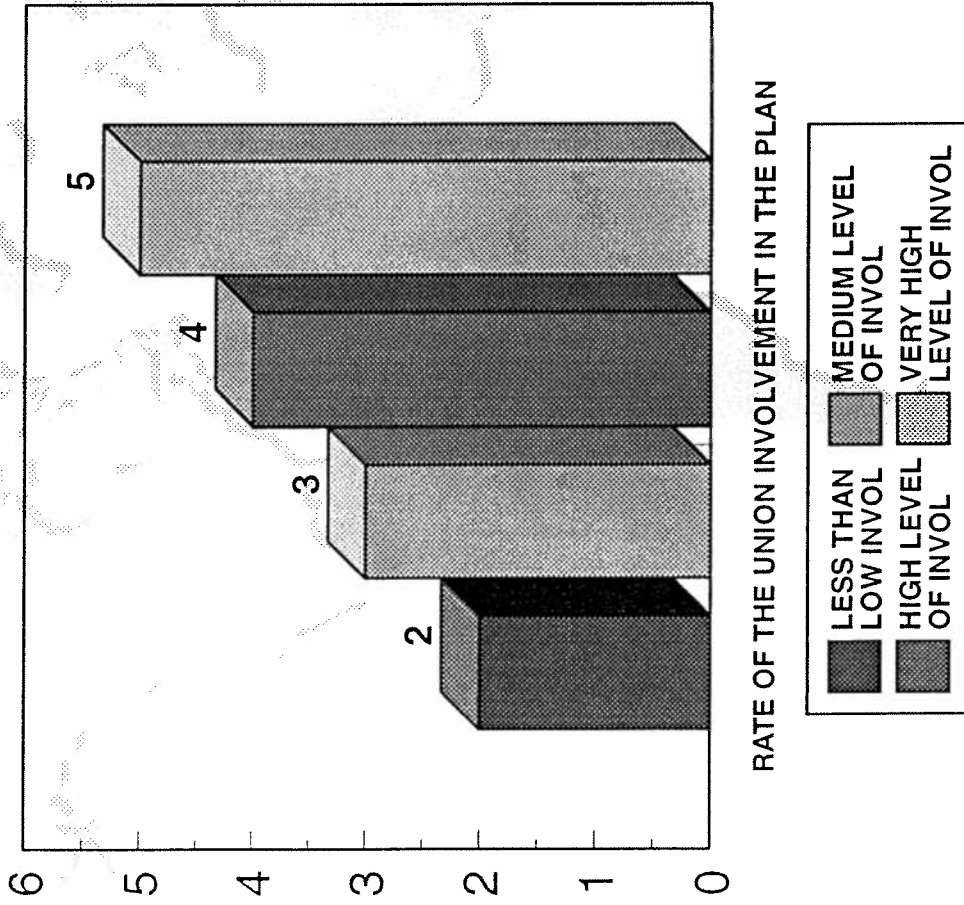
Figure 12



Seventeen of the thirty firms interviewed are unionized and using some form of TQM. In 9 out of the 17 firms, the interview respondent indicated that the union had accepted the plan. Four (4) indicated that the union had not accepted the plan.

UNION INVOLVEMENT IN THE PLAN

Figure 13



The results of the interviews clearly indicate that in order for a TQM plan to work in a unionized environment, the union must be an active participant and be highly involved in all facets of the implementation and planning phases. In addition, they must be active partners throughout the lifetime of the program.

In non-unionized firms, the level of team autonomy had a very strong correlation with the level of firm involvement in TQ (.79) and top management support (.69). Top management support was also correlated with the level of firm involvement (.72). See Table 24 page 135A for results between unionized versus non-unionized firms.

Table 24
 Results for Unionized Versus Non-Unionized Firms

	<u>Unionized</u>	<u>Non-Unionized</u>
Team Autonomy	<ul style="list-style-type: none"> ● Level of involvement in training (.38) 	<ul style="list-style-type: none"> ● Level of firm involvement in TQ (.79)
Top Management Support	<ul style="list-style-type: none"> ● Top Management Support (.69) 	<ul style="list-style-type: none"> ● Top Management Support (.69)
Firm Involvement	<ul style="list-style-type: none"> ● Level of involvement in training (.72) 	<ul style="list-style-type: none"> ● Level of firm involvement (.72)
	<ul style="list-style-type: none"> ● Organizational Success (.42) 	
	<ul style="list-style-type: none"> ● Top Management Support (.74) 	
	<ul style="list-style-type: none"> ● Level of involvement in training (.55) 	

Chapter 8 Discussion

The impetus for this study was to compile qualitative data that would provide descriptive information for firms that were unionized, in the telecommunication or service industry, and were comparable in size to Bell Canada (over 50,000 employees). Although the initial study was only qualitative in nature, was subsequently modified and the data were quantified in order to provide some limited statistical analyses. The results will be of interest to organizations that wish to implement TQM and need guidelines that would allow them to benchmark current practices of successful TQM firms (some the winners of the Malcolm Baldrige Award). Additionally, the study can help organizations that are looking to resolve current or pending problems with their quality program.

The literature review strongly suggests that there are certain key elements that are found in successful TQM firms: information sharing with employees, training, reward and recognition programs, teams, top management support and level of firm involvement in TQM. The results of this study support many of these important elements, as well as the new facet; level of union involvement and acceptance. The literature with respect to union involvement in TQM is scarce. Thus, results of the study's interviews confirm the notion that there must be a very high level of union involvement in TQM in order for any quality plan to be successful in a unionized environment.

The results of the study can be discussed in three sections: (1) all organizations combined, (2) results pertaining to manufacturing versus service firms, (3) unionized versus non-unionized firms.

8.1 All Organizations Combined

8.1.1 Frequency of information as part of TQM approach

Most firms utilizing TQM indicate that information sharing is essential when trying to develop trust and commitment to the organization. Once executives have established a corporate vision to pursue quality, there must be a commitment by top management to share ownership of all relevant organizational information. Through questionnaires and surveys, firms can gather information about customer expectations and needs. Once the organization receives and tabulates quality information, it must then transmit that information to employees. It must communicate customer needs to those individuals that will be performing the job. By knowing what the customer wants, employees are able to meet customer expectations and provide quality products and services. An additional facet of information sharing is the disclosure of financial results. To what extent should the organization disclose financial information? If a firm does openly discuss results, it demonstrates a certain willingness on the part of the organization to let employees know how they are doing. It creates a sense of trust and commitment that employees are valued and, that the firm has nothing to hide. Obviously, there is an element of risk when giving out certain information but this is a factor that firms must consider when involving employees in

their quality programs. Disclosing information can also be advantageous when the organization is not performing well and will not be paying out any type of monetary incentives as a consequence. The results indicate that information sharing has an impact on organizational success, the type of monetary plan used and, the frequency of the payout.

8.1.2 Training

The literature (Cocheu, 1992) clearly indicates that training is an essential component of success when implementing or using TQM. Redesigned jobs make new demands on the knowledge, skills, and abilities required of employees in a TQM organization. Employees must be given the opportunity to develop the skills required in order to meet the firm's quality mandate. Most of the firms interviewed viewed training as critical component of organizational success. The results of the research indicate that the degree of involvement in training has an impact on organizational success. As noted previously, a shortcoming of the ranking is that it does not provide a precise figure i.e. increased by 5%, 10%, etc... but rather, is subjective and biased because respondents simply indicate whether performance has "decreased, remained the same or, increased".

The more a firm is involved or committed to TQM, the more the likelihood that they are highly involved in training. Any firm that embarks on TQM has to be prepared for an extensive training program for all employees. Employees need to understand what their role is within the organization, how quality will affect the way their job is

performed and how to work within a team. They must learn not only how to adapt but how to master a new range of arsenals that will allow them to successfully perform their job. There are several facets that have to be addressed in order to make the transition to quality; therefore, it is essential that training be a focal point of this transition. In order for the program to succeed, there must be a commitment on the part of the firm to get involved in both the quality and training programs.

8.1.3 Reward and Recognition

The literature (O'Neal, 1992) suggests that in order for a total quality program to succeed, there must be a reward and recognition program. Some authors argue that monetary compensation undermines the motivation that is derived from doing one's job and therefore, will be more detrimental than beneficial. On the other hand, some compensation proponents argue that recognition alone is not enough to foster commitment to the organization and therefore, there has to be monetary compensation. The results of the study do not support one of the author's propositions that the use of compensation plans are a contributing factor to organizational success in a total quality environment. However, there are other interesting findings that suggest that the size of the reward and the frequency of the payouts are important elements of a quality program.

The results indicate that manufacturing firms using recognition programs have a higher level of organizational success. Initially, interview respondents were asked if they were using some type of recognition and if so, what type of recognition they

were using. A majority indicated that they were using a combination of plaques, gift certificates, hats, t-shirts, various symbolic gestures that provided immediate recognition for outstanding performance. In some instances, a formal awards ceremony given by top executives for employees.

How important is the size of the monetary reward for service firms? Results indicate that firms will have a higher level of success when the size of the reward is larger. This simply means that a firm will have a higher degree of organizational success when they give out more money. However, the results do not tell us how often the reward should be given out, only that a higher amount will correspond to an increase in firm performance. Profit sharing and/or gainsharing programs have locked in formulas that allow for payouts on a quarterly or annual basis, and it is rather difficult for employees to see the link between their performance and their contribution to the firm's outcome. Maybe firms should look into giving rewards more often while controlling for the amount given. Employees may value a reward more after they have achieved a certain goal or performance target and receive the monetary reward immediately, instead of waiting an entire year.

8.1.4 Unions

As indicated earlier, in order for TQM to work in unionized environments, there must be acceptance of the plan by the union. Without it, any quality initiative is destined to fail. Firms that have a very high level of firm involvement in total quality will have a strong tendency to have a higher rate of union acceptance. The results indicate that the key to getting the union on board is to get them involved from the very beginning and make them active partners throughout the entire program. If an organization attempts to sideline the union, there will definitely be resistance to any type of changes that are proposed.

Initially, it was believed that firms that were unionized would have more difficulty implementing TQM because there would be strong resistance to changes that could directly affect workers and lead to attrition. This is true but, there seems to be no indication that TQM cannot be implemented in unionized firms however, there are certain conditions that must be met in order for the plan to work.

8.1.5 Teams

Where do teams fit in within TQM? The literature suggests that teams are an integral part of quality programs and, therefore, should be present in a quality-enhanced environment. However, the type of team that is used will vary depending on the firm's needs. Not all organizations have an infrastructure that is suitable for semi-autonomous teams but, rather, teams that may come together to work on certain projects or problems. Each firm has to analyze what kind of team best fits its

needs.

The results of the interviews indicate that the type of teams that are most frequently used in total quality are work teams or self-directed teams. This is conducive with TQM and the level of empowerment that is given to employees. A firm that is highly involved in its quality program and believes strongly in empowering its employees, will more likely have teams that are autonomous and responsible for the firms products and services. As a consequence, the more autonomous the team, the higher the level of top management support.

One of the propositions put forward was the contribution of teams to organizational success. No conclusive results were found. A possible explanation could be that teams are important but, they do not directly contribute to organizational success on their own. As well, firms have to be quite evolved with respect to TQM before they will utilize teams to their maximum efficiency.

8.1.6 Top Management Support

Executive actions speak louder than executive words (Tichy & Sherman, 1993). Top management must not only extol the virtues of total quality but they must openly support all facets of the program. This strongly supports the literature which suggests that top management commitment is essential in order for the quality program to succeed. Without it, the entire programs is destined to fail.

8.2 Discussion for Service versus Manufacturing firms

In the past, most companies that were using TQM were manufacturing firms because it was easier to measure the number of defects and because quality control was based on "conformance to specifications " and "lack of defects" (Dean, 1994). The tools of measurement were quantifiable and therefore, corrective action could be taken to rectify problem areas. There are several quality dimensions in manufacturing:

- Performance: a product's primary operating characteristics.
- Features: the "bells and whistles" of a product.
- Reliability: the probability of a product's surviving over a specified period of time under stated conditions of use.
- Conformance: the degree to which physical and performance characteristics of a product match pre-established standards.
- Durability: the amount of use one gets from a product before it physically deteriorates or until replacement is preferable.
- Serviceability: the ability to repair a product quickly and easily.
- Aesthetics: how a product looks, feels, sounds, tastes, or smells.
- Perceived quality: subjective assessment resulting from image advertising, or brand names (Garvin, 1984 See Table 1 page 4).

All of the dimensions discussed above revolve around product design and can be easily measured. On the other hand, service measurement can be somewhat more complex. Many service organizations have well-developed quality assurance systems. Most of them however, are based on manufacturing analogies and tend to be more product-oriented than service-oriented. However, there are several important quality dimensions that can be measured:

- Time: how much time must a customer wait?
- Timeliness: will a service be performed when promised?
- Completeness: are all items in the order included?
- Courtesy: Do front line employees greet each customer cheerfully?
- Consistency: are services delivered in the same fashion for every customer and every time for the same customer?
- Accessibility and convenience: Is the service easy to obtain?
- Accuracy: Is the service performed right the first time?
- Responsiveness: Can service personnel react quickly and resolve unexpected problems? (Berry et al., 1988 See Table 2 page 5).

It is important that service organizations focus on customer transactions and employee behaviour. This can be done through the use of: marketing and consumer research; making an effort to measure customer attitudes and employee competence (through survey questionnaires); and increased quality training for employees who need to handle problems without supervisory assistance. This can be done by

empowering employees to deal with customer complaints and service problems as quickly as possible. A customer would rather hear: " I will do my best to rectify the problem immediately" instead of " I'll have to check with my supervisor before I can help you".

There are very specific procedures that need to be followed for both manufacturing and service firms in order for measurement of defects to be accurate and quantifiable. Selection of quality measurements can be left to the discretion of the individual firm and, as was discussed previously, there are ample measurement tools that can be utilized for service firms as well. For any service firm that thought it would not be able to implement TQM because of measurement constraints, both the literature and the results of the interview questionnaire suggest that service firms make a concerted effort to make operational measurement of primary importance.

8.2.1 Reward and Recognition

The use of recognition programs in service firms was not relevant for the purposes of this study. However, there is a strong correlation between the size of the reward and the level of organizational success. This is consistent with the entire sample. The bigger the reward, the more the likelihood that organizational performance is higher. This finding was not found with manufacturing firms. Even though monetary rewards did not directly contribute to organizational success, there is some merit in the notion that rewards do play a role. A challenge for firms would be to develop a compensation scheme that takes into consideration the size of the

reward as well as, the frequency of the payout. This could be coupled with a recognition program that provides instantaneous feedback for employees.

For service firms there is a correlation between the organizational level of rewards and top management support. This finding is consistent with the overall sample which indicates that the higher the level of top management support, the more the likelihood that rewards will be given out at the organizational level. There is a very strong correlation between duration of the plan and the size of monetary rewards. This may be explained by the fact that organizations that embark on TQ in the 90s, may be more sensitive to employee needs and have learned that larger rewards are essential in order to gain a certain level of motivation and commitment to the firm.

Duration of the plan and the number of employees covered in the plan were correlated with the level of the organization at which rewards are given. This was also found in the entire sample but not in manufacturing. The longer the plan is in effect, the more rewards will be tend to be dispensed organization-wide.

8.2.2 Firm Involvement

There is a fairly strong correlation between the level of firm involvement and organizational success. This was consistent with the overall findings. As in the entire sample, firms that have a very high level of firm involvement in TQM will have a higher level of top management support. This finding was not found for manufacturing firms.

8.2.3 Training

As was found in the entire sample, a higher level of involvement in training will be a contributing factor to organizational success for manufacturing firms. This result was not found in service firms. Because of the intricacies and complexities of a manufacturing setting, more extensive training may be necessary.

Training also had an impact on the level of firm involvement in quality and the level of top management support. The level of training involvement and the type of teams used within the firm were also conclusive. This could mean that the level of involvement in the training program may vary depending on the type of teams that are used. If a firm uses work teams that are more autonomous there would definitely be a need for more training because of the increased level of technical skills required and, as a consequence, a higher level of involvement in training.

8.2.4 Top Management Support

As discussed previously, before any quality plan can work, top executives must be the quality champions. If they are not interested in the quality program than why should employees be? Top management support was a strong determinant of organizational success for service firms.

8.2.5 Teams

In a manufacturing setting, there will be a need for teams that are not only self sufficient but cross trained to perform various jobs because of the nature of the work. Therefore, there will be teams that are more autonomous. This is consistent with the correlation between top management support and team autonomy in both service and manufacturing firms. There was also a correlation between the level of firm involvement and team autonomy for service firms.

8.2.6 Information

As in the entire sample, there was a relationship between information and success in service firms. When information is communicated to employees more often (daily to weekly), there could be an increase in firm success.

For manufacturing firms, there is a very strong correlation between the frequency of information and the duration of the plan. This could lead one to believe that information that is given out more often is usually in firms that have had TQ in place longer.

8.2.5 Teams

In a manufacturing setting, there will be a need for teams that are not only self sufficient but cross trained to perform various jobs because of the nature of the work. Therefore, there will be teams that are more autonomous. This is consistent with the correlation between team autonomy and the level of top management support in both service and manufacturing firms. Team autonomy also correlated with the level of firm involvement for service firms.

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8.2.7 Unions

There is a very strong correlation between union involvement and the level of involvement in training for manufacturing firms. The more a union is involved in the quality program, the higher the rate of involvement in training. As mentioned earlier, when a union is committed to the quality program they will be more involved in all facets, including training.

Although the propositions were not supported, the results of the research provide interesting insight into other factors that may contribute to increased organizational performance and could prove relevant for future research.

The variables discussed above contribute in some way to how quality program works. A plausible explanation could be that a combination of these variables contribute in some way to organizational success rather than one, single variable.

8.3 Unionized versus Non-Unionized firms

As mentioned previously, when the study was undertaken it was assumed that total quality would be more difficult to implement in unionized firms than in non-unionized because unions would put up resistance to a plan that could lead to job loss or attrition. Unions would most likely accept a plan when their jobs are not jeopardized or, when the objective of the program is to improve customer service and the quality of the products or services. For some firms there is no hidden agenda but merely a strategic plan aimed at changing the way the business operates. This type of reasoning is easier to defend than one that is cutting costs and operating expenses by trimming the number of employees and jobs. For those unions that do accept a quality plan, what is their new role and how involved will they be in setting objectives and monitoring the plan? In the past, the relationship between labour and management was more confrontational than cooperative. Today, the recession and increasing competition have forced unions to become more sensitive to the firm's needs and that is one reason why total quality can be implemented in a unionized environment. However, an additional explanation could be that firms have learnt that in order for quality to work, unions must be active partners from the beginning.

The most important determining factor of organizational success in unionized firms was the level of top management support. This result was not found in non-unionized firms. This may indicate that top management support is more crucial in unionized settings because of the legitimacy that must be given to the union's role in

TQM. If top management does not support the union then it is almost certain that the program will fail.

What else is a determining factor in unionized settings? The results indicate that there are several contributing factors that also have an impact: the duration of the plan; and the size of the reward. Rewards will be larger when a plan has been in effect for a shorter period of time. For unionized firms, top management support will also have a very strong impact on the level of involvement in training. In non-unionized firms, top management support was a precursor to the level of firm involvement.

Firm involvement in quality was also a very strong indicator of the level of top management support and the level of involvement in training. It is interesting to note for unionized firms that three variables played a role in the degree of involvement in training: the level of team autonomy, top management support and the level of firm involvement in quality. For training, a possible supposition could be that it is essential for these variables to be strongly present in order to gain commitment to training and in some way, these factors contribute to a successful quality program in a unionized environment. These variables were not present in non-unionized settings.

A note of interest for firms developing a training program in a unionized setting: the union should be involved in planning the agenda and be part of a training committee. A needs analysis is successful when done in conjunction with individuals who perform the job. Sometimes it is more informative when companies solicit

feedback from union representatives who can provide invaluable input on behalf of the employees who perform the work.

Team autonomy has an impact on the level of involvement in quality programs and top management support for non-unionized firms. There is a trend that has become more obvious while discussing the results. Teams have a tendency to be more autonomous in an organization that is fully committed to TQ and has a strong level of top management support for their quality initiatives.

An additional proposition put forward by the author was: the union will object more to a individual or team incentive plan than a profit sharing or gainsharing plan. Because of the ranking of the compensation programs (they were not ordinal and therefore no valid comparisons could be made) it was impossible to make any conclusive findings.

Conclusion

This study was undertaken in order to provide a best practices model for firms that were either using TQM or wanted to implement TQM and were looking for guidelines that would enable them to successfully use TQM while using other facets: compensation, teams and training. In addition, can TQM be implemented in unionized environments?

With respect to compensation, there are certain elements that must be present:

There should be a combination of financial and non financial rewards. Although one of the propositions was not supported, the results indicate that the size of the reward is correlated with organizational success. The larger the reward, the higher the level of firm performance. Most firms gave out on average \$500 per employee. There was no indication of the frequency of the payout for this specific amount, although the majority of firms gave out rewards on an annual basis. This would also correspond to the finding that 40% of firms were using profit sharing and/or gainsharing. These types of compensation plans are usually given out on an annual basis and therefore, this corresponds with the results found. An interesting research question would be how frequently payouts should be made to employees. Even though the majority of firms are using profit sharing and/or gainsharing, firms should look at programs that allow for more flexibility and allow payouts to be made more often. It is up to the organization to set a cap on the rewards given. Maybe smaller amounts should be paid out but more often.

An interesting finding was the use of recognition plans (non-monetary) and organizational success. There is support for those authors that have argued that monetary incentives are not enough to gain employee satisfaction and motivation. There must be other gestures on behalf of the organization to demonstrate that employees are valued and recognized within the firm. Recognition could include small tokens of appreciation such as: hats, t-shirts, pins, gift certificates, movie passes and official executive presentations to employees for outstanding performance. It is important that employees receive feedback with respect to how they are performing. Immediate recognition following the achievement of a specific objective or goal indicates to the employee that the firm values their contribution to the firm. When employees receive payment for outstanding performance a year later, there is a weak line of sight therefore, the motivation derived from doing a job well done, loses its' impact for the employee.

A firm utilizing TQM should probably use both financial and non financial rewards to recognize outstanding performance. Profit sharing and gainsharing could be used in addition to individual and team incentives that support quality improvements. In addition, non financial rewards could complement the use of these programs. There were no conclusive findings with respect to individual or team incentives, even though both types of rewards can fit well within TQM. Team awards support the structure of teams and create cohesiveness amongst team members for outstanding team performance. All members receive a reward. In order to recognize individual performance within a team, team members nominate individuals whom they

feel deserve rewards within the team. If team members instead of supervisory personnel nominate individuals, they do not undermine the cohesiveness of the team.

A conclusive finding for training both in the literature and in the results of this study was the need for an extensive training program. Once the organization embarks on the quality journey, it must provide employees with quality and technical training in order to acquire the new skills and knowledge they will need to function efficiently and successfully.

A high level of top management support and firm involvement in TQM were critical attributes to the success of the program. If executives do not support quality initiatives and demonstrate that TQM is of the utmost importance, then why should employees? There must be a commitment on the part of all executives in order to make the program work.

The results clearly indicate that organizations are using work teams that still rely on supervisory personnel. In essence, organizations are using work teams that are not fully autonomous. Many indicated that they were headed in that direction but were not quite there. It is important for the organization to analyze what its needs are with respect to teams. Not all firms have an infrastructure that is conducive to autonomous teams and, therefore it is up to the individual firm to decide what teams it wants, if any. An organization that is fully committed to quality would have teams composed of empowered employees who manage not only the daily work but, personnel decisions such as selection of new team members and, when necessary,

disciplinary measures.

An exploratory phase of the research examined whether unions were an impediment to the implementation of TQM or throughout the duration of the plan. One of the first phases of the study dealt with the implications of having a union when trying to implement a plan that could potentially be damaging to union members. In the past, TQM was viewed by unions as a means of cutting jobs and of attrition. In some cases, this was true and the need to downsize was justified by implementing TQM. Firms that looked to TQM as a quick fix to current problems and were looking for ways to decrease costs often did not succeed because they did not view quality as a corporate culture or philosophy but rather, a short term solution. This type of justification would be difficult to defend. However, many firms do not use TQM for this reason. Most organizations looking to remain competitive and increase their market share look to TQM as a new corporate strategy that will enable them to stay competitive.

Results of the interviews indicate that there are certain conditions that must exist in order for the union to accept the plan. The organization must consult the union prior to implementing TQM in order to gain its insight and feedback with respect to the plan. The consultative process is necessary but the firm must also involve the union in all aspects of the plan. The union has to be an active partner in all phases. Once TQM has been implemented, there must be a joint union-management committee that oversees the plan. In many cases, when there was a joint committee, it was not necessarily part of the collective agreement but rather was a separate

agreement. Therefore, the union must be an active partner in all facets of TQM. If organizations attempt to sideline the union there will most likely be resistance.

Suggestions for further research

- Interview more firms that fall within the parameters of the study in order to increase the validity of the results;

- Solicit feedback from employees who are involved in TQM. What better way to gauge employee satisfaction and motivation than asking employees how they perceive quality and what improvements could be made to the program. This would provide invaluable insight with respect to success of the program and would provide an unbiased opinion.

The results with respect to organizational success do not have quantitative measures i.e. increased by 5%, 10%. etc... The interview respondent indicated whether performance had decreased, remained the same or, increased. In some cases, there are quantitative measures. The results are somewhat biased because of the subjective nature of the responses. It is assumed that individuals who participated in the interview are quality champions and have an intrinsic interest in seeing the program succeed. Therefore, by quantifying the results, participants would be asked to give actual numbers that support their statement. Also, get feedback from employees and union members as to what their perceptions with respect to performance.

- Frequency of payout

Limitations of the study

There was a very small sample size (30 firms interviewed) and as a result, there is a low level of external validity and the findings cannot be generalized.

There are very specific parameters for the firms chosen, therefore, it would be difficult for any firm to look at the results and find similarities. Therefore, caution is advised for those firms that do not resemble the ones interviewed.

Most firms indicate that the reason for adopting TQM is to stay competitive and increase the quality of their products and services. Others adopted TQM merely to survive. Whatever the reasons, TQM has become a way of doing business, a complete cultural revamping of the organization. However, quality is not an instant guarantee of success. There are several factors that must be taken into consideration for the program to work such as: compensation programs that are conducive to TQM; teams that are somewhat autonomous; quality training for individuals and teams; an environment that fosters union cooperation; and communication that provides employees with invaluable information pertaining to the program and other aspects of the organization.

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Appendix I- Questionnaire A

Questionnaire

I am presently conducting research on team awards and profit sharing in a total quality environment. This research is conducted by two professors, one American and one Canadian, in conjunction with a graduate student from the University of Montreal.

To be more specific, I am trying to learn about the effectiveness of team awards in conjunction with profit sharing that is conducive to teamwork and employee involvement programs. Firstly, I would like to establish whether you are using any form of total quality or reward program(s). You can indicate all answers on the questionnaire.

1) Are you presently using any form of "total quality" or related management philosophy? (Definition: the application of quality assurance techniques to every work process in the corporation. TQM starts with the basic assumption that quality means meeting the requirements or expectations of the user or customer). TQ stresses customer relationships, including those between interdependent colleagues and departments. It relies on teamwork and employee input, and it focuses on improvement and measurement of internal processes rather than on financial results and other traditional yardsticks of performance.

Please describe the program in detail.

2) Is TQM supported by senior management? (In other words, does senior management openly support the total quality program?)

If yes, what do you mean by support?

3) Are you using any form of Distribution Plan or Cash Bonus Plan which pays a share of company profits to employees in cash or occasionally in company shares?

(a) If you are using an alternative form of rewards plan, could you please give me more details.

(b) If you are using any form of cash plan, could you give me an idea of the size of the reward?

Example: Between 0 - \$100 More than \$100

(c) If none of these, how large is the reward?

(d) How frequent are the payouts? Monthly, quarterly, annually? If none of the above, is the payout driven by an event? (A goal is set, if the goal is met, then payout). If this is the type of payout, how often does it occur?

4) Does the organization have any form of self-directed work team? (A highly trained group of employees from 6 to 18, on average, fully responsible for turning out a well-defined segment of finished work). The segment could be a final product, like a refrigerator or a ball bearing, or a service, like a fully processed insurance claim.

(a) If it is not a self-directed work team, is it a suggestion team, or some form of an employee involvement team?

Please explain.

5) Does the organization provide employees with training related to: technical skills, technical cross-training, which allows members to move from job to job within the team itself?

If yes, proceed to the next question.

6) How does the organization provide this training?

7) Does the organization reinforce individual behaviour that promotes flexibility of the team as a whole usually by paying team-members for mastering a range of skills required to reach team performance goals?

8) How does the organization measure organizational performance?

A) Financial measures: measure performance only in bottom-line financial terms, profits or returns (returns on assets, return on capital);

B) Operational measures: use some combination of productivity, quality attendance, safety, cost reduction, project milestones, volume of sales referrals, they do not include bottom-line financial measures;

C) Combination plans: use both financial and operational measures of performance.

Specify A, B or C: _____

9) At what level of the organization are you using the performance-reward: organization-wide, business unit, facility, department, work group, or does the plan cover one individual or several individuals?

Please specify: _____

10) Is the plan designed for non-management employees?

Please answer yes or no.

11) Is the plan designed exclusively for executives or management?

Please answer yes or no.

12) How long has the plan been in effect in any form?

Plan introduction: Month _____ Year _____

13) Specify the type of industry that best fits the organizational unit supported by this plan?

Manufacturing, service or, both?

14) Indicate the total number of employees covered by the plan.

Number: _____

14a) What is the total number of employees in the organization? These employees are not necessarily covered by the plan.

15) During the last two fiscal years, would you say that business performance of your unit has increased, decreased, remained about the same or don't know, pursuant to the introduction of performance-rewards or TQM?

Please specify.

16) What are the criteria that you utilize to measure increased performance? Whether within the team or at an organizational level?

Example: do you measure customer satisfaction, production measures, does the team set goals or criteria that trigger bonuses? Please specify. Could you be specific with regard to the criteria utilized. (Example: does the company give out questionnaires to customers to measure satisfaction or, are there specific production measures?)

Please explain.

17) How often is information concerning the entire unit's financial and/or competitive performance broadly communicated to employees at every level?

Please specify: weekly, monthly, quarterly, twice a year, once a year...

18) What were the reasons for introducing the plan?

Please specify.

19) If you are using some form of reward plan, what is the average length of time between the end of the measured plan period and the payout?

Weeks _____ Months _____

20) Is the organization unionized or non-unionized?

(a) If unionized, how did you "sell" the idea(s) of total quality and the reward program(s) to the union(s)?

(b) Are the unions involved in setting the objectives or fixing the rewards?

(c) Are the specifics of the plan outlined in the collective agreement?

(d) Tell me more about your overall experience?

Appendix II - Questionnaire

I am presently conducting research on total quality management and the various forms of compensation that are used in a total quality environment. This research was initially conducted by two professors, one American and one Canadian, in conjunction with myself. I am a graduate student from the University of Montreal, Montreal Canada. Our objective was to try and develop a best practices model for a service company that was using TQM. This project was completed for the firm, but the number of companies that participated was limited because of the short time frame we had. Therefore, I expanded upon the initial study and developed it into a Master's Thesis.

Below is a series of questions pertaining to the research. Feel free to add additional information or comments. These questions are not restrictive.

1) Are you presently using any form of Total Quality or related management philosophy? Please describe the program in as much detail as possible.

2) Is TQM supported by senior management? If yes, indicate the level of support (very strongly supported, medium level, not supported, etc...)

3) Are you using any form of compensation program in conjunction with the quality program? (Example: Profit sharing, gainsharing, individual incentives, team incentives, other form of monetary program). Please describe the plan.

3a) If you are using a compensation program, could you give me an idea of the size of the reward?

Example: Between 0 - \$100.00
 More than \$100 but less than \$500
 More than \$500

3b) How frequent are the payouts?
Daily, monthly, quarterly, annually, driven by a goal, etc...

- 3c) If you do have a monetary plan please indicate whether you have other types of recognition? For example: plaques, dinners, formal recognition, etc...
- 4) Does the organization have work teams? (For example: ad hoc teams, project or process teams, self-directed teams). Please describe.
- 5) If you have a self-directed team, how would you rate the autonomy of these teams? Low level of autonomy, medium, or completely autonomous. Please describe.
- 6) Does the organization provide employees with training? Describe the type of training? As well, was there quality training?
- 7) Is the training given by the firm itself or external consultants or trainers?
- 8) How does the organization measure organizational performance? Through financial measures (bottom-line financial results), operational measures (customer satisfaction, employee satisfaction, reduced absenteeism, reduced turnover, number of defects, productivity measures, etc...) Please indicate which of the following or a combination if applicable.
- 9) Who is the plan designed for? (Management or non-management, both?)
- 10) How long has the plan been in effect for?
- 11) Specify the type of industry you specialize in. Service, manufacturing, both?
- 12) What is the total number of employees in the organization?
- 12a) How many of those employees are covered by the plan?
- 13) During the last two fiscal years would you say that performance of the firm has increased, remained the same, or decreased?

14) How often is information concerning the firm's financial and or competitive performance communicated to employees? (Daily, weekly, monthly, quarterly, annually, etc...)

15) What were the reasons for introducing the plan? Give details.

16) Is the organization unionized?

16a) If unionized, has the union accepted the plan?

16b) Is the union involved in setting objectives or goals for the plan?

Appendix III- Results of Questionnaire

Company Name: E.D. Smith

1) System utilized: Philip Crosby Associates - Quality Improvement Process (TQM for this company)

They define what quality is, the system itself, the ability to measure increased performance.

2) The program is strongly supported by senior management.

The education must come from the top and trickle down. From the CEO to the shop floor. In this case, senior management was involved in the implementation from the beginning and continued to be involved on a day to day basis.

3) Reward plan in operation: Return on yearly capital employed.

Target of profitability: management only

"The idea generation plan" or "the Prosperity Plan": individuals in groups meet, work on a project, present their idea and the savings anticipated, if feasible, the group is then rewarded. Reward can be up to \$300.00

(c) Average amount is \$50/employee

(d) Frequency of payouts: set by a goal

4) Doesn't really have teams but moving in that direction. They have "ad hoc" teams that come together to work on a project, but not a day to day basis. They have corrective action teams: pulls people together to solve a particular problem.

5) Training: usually on equipment. People on the floor are trained on computers and the basics. This helps them function solely on a day to day basis.

6) Training is "in-house".

7) N/A

8) Using a combination plan: financial department budgets for the year, if sales exceeds the budget or operations maintain their budget, they receive a certain reward. Indicated that this has not been achieved.

Quality aspect: measure whether a certain area has been active with some form of a quality process: i.e. safety, sanitation related to production areas.

9) Level of the organization: Organization wide

10 & 11) Both management and non-management

Mentioned that there is no performance appraisal in place.

12) Plan in effect: 1988

13) Manufacturing: food processing

14) Number of employees covered: 240 (200 are full-time)

14(a) same

15) Business performance: has increased: aggressive marketing in all areas. Plan has helped secure new business because they are using some form of "quality" program. This seems to entice prospective clients. i.e. secured contract with McDonalds pizza sauce because of their on-going quality process.

16) Criteria: Monitor order fulfilment, volume of sales, contribution on monthly basis.

17) Information: monthly basis

18) Reasons for introducing the plan: to build upon a reputation of quality, remain competitive, change organizational culture, become more customer oriented (quality has greatly contributed), decrease costs (less waste).

19) Not really applicable

20) non-unionized

(d) It is essential for organizations to have TQM in order to remain competitive, gain customers. TQM transforms the organizations way of thinking, it becomes a culture umbrella to align on-going programs (safety), create and increase commitment to the organization. He is convinced that this can be done without profit-sharing and gain-sharing.

Company Name: Westinghouse

1) Yes. Employee Participation Program

Social Technical Format: employee interpersonal skills and technical skills. Employees are formed into teams.

2) Supported by V.P. but varies throughout the organization. There is some resistance from middle management, hard for them to give up power. However, plant-based is supportive.

3) Bonus plan based on five years: measure performance with respect to quality improvement and cost improvement.

Objective: ideas & improvement (i.e. goal of \$400,000 if they meet overall plant objectives, the bonus formula kicks in which is 2%.

General increases for the year.

1/2 increase X # of months

1/2 general range X # of months of participation X monthly salary.

4% for a year

1/2 of 4% = 2% X 12 months X monthly wage

(b) 300.00 /year/employee

(d) yearly

4) Four to five people = production requirements. Sometimes 15 people. Teams are usually set in relation to their work set and then into product groups. These groups can range from 4 to 7 people. When they divided the larger groups into smaller groups, the communication broke down.

5 & 6) Training in relation to pay for knowledge within the plant.

They are called a product group: a work team enters the area, they spend a certain amount of time learning that job. At the end of the year they pass a test once they have completed the requirements. The cross-training is given by members of the team and the test is created by the team as well. After they have completed all the required stages they can ask to be moved to another team of their choice. If there an opening, they can then go to the new job.

7) The organization reinforces behaviour throughout the completion of the various skill levels. i.e Skill level I to Skill Level V. As they increase from one level to the next there is an increase in pay. (150.00 to 250.00/block/year - this is usually after they pass the test. As they move from one skill level to the next you add a month. The training for skill level I is 12 months, then level II requires 12 months + 1 month.

8) C- combination plan; Measure whether they have reached plant objectives and also use operational measures like attendance, safety etc..

9) Level of organization: The plant part of the business unit. They are 1 facility out of several participation programs.

10 & 11) Management & non-management

12) 6 years

13) Manufacturing; Electrical switch gears.

14) 70 in the plant which is an independent site.

14(a) 2000 - 4000 (not sure)

15) Fiscal performance: Has increased, but doesn't feel it is related to the program

16) Criteria used: ability to work with others, customer satisfaction, on time delivery, quality reporting on a month to month basis, field report (call service company, get report, report the problem to the plant and file a non-conformance report and get a detailed report of customer complaints, also in-house complaints. If there are problems address the individual through the team.

17) Monthly

18) Reasons: More competitive, TQ plan need to look at these issues and utilize your resources, create a better work life, better product, increase customer satisfaction etc..

19) Payout period: from January to December: yearly bonuses are usually given out in February or March. However, not always on time. (Annually)

20) Non-unionized: "union people won't go for it".

(d) Is a Quality Control Inspector: there was a lot of management scepticism, managers were not impressed, managers were not involved. Consultants only spoke to employees, they didn't want any management feedback. Now, they realize it was a mistake.

Company Name: G.E. Bromont

1) Using a quality program: each sub-unit has a responsibility for its' own business. They are responsible for profit and loss bonuses.

2) Senior management strongly supports the program.

3) We have a bonus plan but it is only applicable to managerial, not for unionized people at all. Tied strictly to financial business results.

Awards program for foreman/managers/leader: can reward someone for extraordinary effort. However, it is not used often. (Cash plan: 0 - \$1000)

(d) 2 to 4 times/year

4) Teams: structured in manufacturing organization by contract teams: leader on a team of five or six employees. Team that liaisons between engineering and marketing

Quality plans for manufacturing (teams of workers that participate in developing their own methods. Target met, then incentive. Represents a new way of working; employees are empowered throughout production. Quality problems are handled by the quality organization - try to involve the contract team.

5 & 6) Employees are in teams now; light class.

Contract teams are multi-skilled: coached and trained by team members. Courses are given internally and externally.

Shop employees introduced a form of "module" setting: which is a group of employees classified as vertical board operators rather than being skilled in one area, know various jobs.

The foreman and the union representative from the work area and the person from employee relations.

There are semi-formal evaluations: if skills are needed, then training courses are provided.

Cross-training: sometimes used to improve literacy, therefore allowing an employee to read blueprint readings etc... (Courses paid by company)

Also, there is compensation when moving from one level to the next.

7) Yes.

8) Organization uses a combination plan of everything mentioned in question 8. Key financial profits, measuring the cost of quality, delivery performance, customer needs, internal measurements, increased productivity, decrease in purchase costs, etc..

9) Level: Management and professional, engineering, individual contributors etc...

10 & 11) Management

12) Since the fall of 1989

13) Manufacturing

14) 200 management covered (30-40 manufacturing as well)

14(a) 750 employees

15) Business has improved: i.e. volume, net income, sales billed. Hard to measure because of the long cycle (3 to 4 years). It's another way of doing work, contributes to helping the work happen.

17) Flow of information: Monthly. Annual communication meetings with senior management i.e. inform every employee of last years results, projects completed, business trends, prospects.

18) Reasons: get away from traditional role, from specialists. Try to achieve the umbrella effect: have multi-skills, have a team available where a customer can get any question answered.

19) N/A

20) The shop is self-directed/hourly/unionized

(b) unions involved, human resources, employee relations, Seniority used for reduction of staff and work force(attrition), determine which shift the employee work on.

Employees have the option of being on a team or not

Company Name: Steelcase Grand Rapids

1) Have TQ within teams. Moving towards focus factories. Presently have teams that work on, and develop focus incentives that are team based.

2) Senior management: strongly supports the quality mission. In order to ensure that customers are totally satisfied. Senior management is implicitly involved on a day to day basis that even make rounds and ask employees what the quality mission of the company is.

3) The company has profit sharing that is based on annual performance. Profit sharing bonus is based on performance.

Individual recognition for team members. There is a management car wash. Members of management personnel wash employees cars as a sign of appreciation and willingness to be part of the "team" effort.

(b) Size of reward: less than \$100.00

Rewards are usually in the form of spot bonuses.

(d) Frequency of payouts: usually when a goal is set, i.e. six week goal, no infractions, then some form of reward. A lot of the time it is as much to call attention to the issue as it is a reward.

4) Number of people in a team: usually five people but can vary between 20 - 25. Presently there are some teams that have a 130 people but this is very new and therefore cannot comment on how successful it is. However, they are not unhappy with the results.

5) Training: Yes. the employee working in a specific unit trains the next employee within that same unit.

6) Job certification: new employee is taught in a classroom then goes through a series of checkoffs and finally passes a test. The training can take from 5 to 30 days depending on how technical the job is.

7) The organization does not pay the employees for learning nor the trainer. Try to instill responsibility in the employee.

8) Combination plans - they use the "star concept" within the business unit.

Profitability: team is involved in profits. They emphasize quality, team dynamics, interpersonal skills, how they manage their team, emphasis on administration, etc.. Everything that is important before the star is met.

9) Organization-wide.

10 & 11) Designed for management and non-management. For example, the policy vacations is the same for management and teams.

12) Focus incentive & individual incentives: 1.6 months

Teams: three years

Pay aspect: one and a half years

13) Manufacturing

14) 13,000

14(a) 60% of 13,000

15) Business results: increased due to the incentive program

16) Criteria to measure performance: customer satisfaction (follow-up groups to make sure customers have received their products), hours/unit spent.

17) Information: monthly.

18) Reasons: to accept change, remain competitive, respond to customers

19) Varies: nominate team members for a special job, special attitude, can receive movie pass, free lunch. There are no bonus plans. It is part of our jobs, they own it, only doing it for that reason.

20) Non-unionized: privately owned

(d) have learned the importance of quality and ownership throughout the organization. Empowerment difficult for some, easy for others. The CEO publicly supports the program, stipulates that we learn from our mistakes. This is what enables us to make better decisions in the future.

Company Name: Florida Light & Power

1) Yes. Thirteen quality initiatives. Adopted a TQ style, empowerment versus autocratic, recognize the individuals initiatives.

2) Yes. Strongly supported.

3) Using an award plan but this is not tied to the profit sharing of the company. Recognition of excellence: highest level for group activities. Usually given out annually. Individual members have the option of a \$150.00 savings bond.

Also have a suggestion plan: contribution rewarded through an accumulation of points.

Team award: cap of \$150.00

Individual cap: same

Original award: bright idea implemented then additional points are accrued.

(d) Hard to say. Idea is approved, implemented, not repetitive

Ad hoc: submit bright idea ---> points ---> turnaround is rather quick. Has to be implemented before points. New themes or standardization results in bonus points.

4) Team members range from 3 to 9

5 & 6) Training: teams are selected and trained. Can help each other when there is a specific problem.

7) No. they are expected to help when called upon. There are no parameters, it is part of their job.

8) Combination. Everything mentioned, especially customer satisfaction.

9) Organization but also business unit. Their level of performance at the business unit determines their contribution. They are measured against the overall business plan and awarded commensurately.

10 & 11) Both

12) Quality initiatives have been in place since 1981

13) Service

14) 14,500

14(a) same.

15) Increased

16) Corporate performance measures, financial, customer satisfaction, delivery, quarterly survey of customers.

17) On-going communication. Left to the judgement of the business units. Day to day. Senior management also shares information on a quarterly basis.

18) Quality initiatives: Increase customer satisfaction, get a handle on costs.

19) N/A

20) Unionized (6,000)

(a) sell idea: if you can give the work force the opportunity to resolve their own problems, why not?

(b) Their input is taken into consideration. They are involved in the suggestion program.

(c) the plan is integrated into the company's culture/practices. Cultural change was appropriate.

(d) own experience: firstly, was trained as team member, leader, progressed to management and a facilitator, was also under the advisement of Japanese culture, corporate manager.

Company Name: Motorola

1) Yes. The program is called six sigma.

Relationship to measurement of defects within performance. This applies to building the product or performing a function. The basic overall objective is to decrease defects and increase cycle time.

2) Support from senior management must be top down. Very strongly supported.

3) No. We do not tie quality to monetary incentives. Can achieve quality goals without monetary incentives.

Rona bonus: Return on net assets and overall organizational performance.

4) Yes, has teams. Focused on TCS = Total Customer Satisfaction.

The teams have 3 to 10 people, on average, 6 to 7. They are teams made up of all functional areas of business. They are cross-functional, cross-divisional. Even customers and suppliers can be on teams.

There is also a formal team program where there is intra-team competitions.

Within these operation units there are divisions. Every year, there is a corporate run-off which involves 23 teams from around the world. The best teams each get 12 minutes to put together a project. They are quality metrics to measure quality of the product, what they did and the results. There is a gold medal for the winners, silver and a special medal for a team that demonstrates special creativity.

It is all recognition, no monetary. The top senior executives, CEO's, and president, all act as judges.

- Pursuant to the event, there is a 1 day event with an awards ceremony.

5) Our emphasis on training is a big part of the success of our program.

6) Training is in-house.

7) Reinforce behaviour through awards, plaques, articles in newspaper.

8) Primarily operational. We focus on continuous improvement. Where was the improvement required? The desire to focus on something that improves our performance in relation to our customer.

- There is a formal metric to measure cycle time.

- Statistical concept: to measure the degree of improvement, decrease defects, improve the process and product. This has a significant impact on sales and profits.

9) Six Sigma: Corporate wide: money, finance, legal, literature, sales, order writing.

10 & 11) Both management and non-management.

12) The overall plan - 1987. 5 years + . The formal team program was added in 1990.

13) Manufacturing of electronic parts.

14) 100,000 (world wide).

14(a) 100,000.

15) Increased (sales from "87 - 92") 93% increase.

Employees have increased by 8%.

Over a 5 year period the cumulative savings are at 2.2 billion.

16) Mentioned right at the beginning.

17) Information: quality performance on a day-to-day basis. i.e. defect performance.
Share of market -----annual basis.

18) Reasons: came to the realization that in order to be competitive and gain global business (i.e. Japanese companies), if we did not take this route, we would end up like other companies, struggling. Must be able to compete globally.

19) N/A

20) Non-unionized - this has helped implement fast changes.

20 (d) This program allowed everybody to take a look at where they were vis-a-vis performance.

There is a measurement tool that is applied to all facets of the organization. Tells you where you are on the scale - how you are doing in relation to continuous improvement.

3.4 defects per million - meets the 6 sigma requirements.

6 sigma ranges from 1 to 6 - 6 being the best, this applies to each individual within the organization.

Company Name: Xerox U.S.

1) Yes

2) Yes

3) Yes: profit sharing all employees
(b) Corporate objectives (0-5% of person's salary)

4) Yes
(b) Range: 6-8 self-directed team

5) Yes

6) Yes

7) In-house

8) Individual teams - measures performance of also used combination plan? No details.

9) Organization-wide

10 & 11) Both management and non-management

12) 10 years

13) Service

14) 100,000

14(a) 100,000

15) Increased by +/-10%

16) Use customer satisfaction, business results, market share, return on assets.

17) Quarterly

18) Increased competitiveness and market share

19) Usually within 3 months

20) 5,000 employees are unionized

20(a) Union is involved in all aspects of planning, they participate in decisions regarding the program.

Company Name: Digital Equipment

1) Yes. We are using a form of product quality related to quality, which in turn, is related to customer satisfaction. The three are inter-related. We use both scientific and social technology in order to understand customer requirements, now and in the future. We also use benchmarking practices in order to find the best practices for us and improve defect reduction. (There is a time dimension associated with defects).

The Delta Program has four components: Suggest, propose, share and adopt.

Share and adopt: this encourages people to share improvements they have made, so that it can be adopted by others.

2) Not supported completely by senior management.

This is due to the fact that the President was replaced. Right now they are reorganizing the business units. Restructuring of the organization has been the main problem.

3) Not really. But our reward plan is based on cash awards. Our stock options are not limited to quality.

b) Size of reward: +/- \$100.00

d) Payouts are given on a yearly basis.

4) They have a "Process Team" of 6-12 people.

Employees that are brought together throughout the work process.

5) Have "in-house training"

6) Training is done when the team is put together.

7) N/A

8) Combination plans: both financial and operational ---emphasis on customer satisfaction.

9) N/A

10 + 11) Management and non-management.

12) Has been part of the management process for 15-20 years.

13) Service

14) Our incentive plan covers 30,000 employees.

14 (a) Total # of employees = 60,000.

15) Business performance has decreased however, this is due to the upheaval in the industry and technology. The "technological revolution" has had more of a negative impacts on performance than any other factor.

Changes in market - the way we configured our products, changes in manufacturing and retail.

However, TQM has helped us to adapt quickly to changing market conditions. Our strategy is focused on the re-engineering process. If we don't adapt, it becomes a question of flash and burn.

16) Criteria: Customer satisfaction, revenue and profitability.

We measure the output per employee in conjunction with productivity, profits/employees.

Right now we are under an extreme head-count. Staffing has to be in line with revenues.

17) Information is communicated on a quarterly basis - delivered by the President.

18) N/A - no specific reasons.

19) Payout -----200 to 230 days (very long!)

20- Non-unionized.

20 (d) I am the architect of the Delta Programs.

I spent 7 years in the corporate quality group, but my background is technical.

Company Name: Toronto-Cadet Uniform Services

1) We are using compensation plans that are based on customer satisfaction and retention.

Note: He feels that team awards are a "1" time recognition and are counterproductive to the program.

TQ for us is an integral part of the organization, part of our culture, part of our day-to-day business activities.

We have high quality standards, with high quality measurements.

2) Yes: Driven by senior management. Cannot take a passive role. CEO'S and presidents must be actively involved.

3 (a) We are using a Distribution/Cash Plan.

- 70% of compensation comes from what our customer says.
Cannot give a precise figure - wide range from employee to employee.

4) Yes. Throughout the entire organization. Varies from 3 people - which are short-lived corrective action teams.

Then there are 10-11 people who are in interactive departments. It is divided.

5 & 6) There is cross-training constantly.
In one day there can be from 4 to 9 interviews for any position.

First day on the job: there is a 10 hour orientation.
Second day on the job: classroom skill development.
Training can last from 4 weeks to 8 months depending on the nature of the position.

Turnover in our company is 7.7%. whereas the industry average is 55.4 percent.
This program definitely pays off because of the low turnover.

7) We do pay individuals that demonstrate leadership qualities.

8) How we measure? There are 2 key components.

- 1) Customer retention
- 2) Employee retention

These are based on operational and financial outcomes-combination plan.

9) Organization - wide.

10 + 11) Both management and non management.

12) 12 years - since the early 1980's.

13) Service industry.

14) 300 employees covered by plan.

14(a) 300 (TOTAL).

15) Increased. Profits + Sales have increased by 22 percent.

16) Ultimate measure is customer satisfaction.

17) Weekly - Sales + Customer retention.

Evaluation is very big. Visual presentation of all relevant information on displays.

- Operations meetings - the same.
- We review the 3,200 measurables that are constantly updated. - On-going process. We tell our people whether our profits, sales are good or bad.

18) Customer Retention.

19) Increasing employees' salaries is on-going, there are no annual reviews, daily reviews or performance. Pay review is every couple of months.

20) Non-unionized.

20(d) It affected my family. I have internalized quality for myself as an individual. I am less tolerant of mistakes.

I insist on conformance to requirements. Motto: "Do it right the first time!".

Company Name: Northern Telecom (Canada)

- 1) Yes. Do have total quality. No profit sharing program.
- 2) Very high top management support. Support objectives. Provided from our corporation courses - leadership and direction are embedded within the organization.
- 3) No formal type of distribution or cash bonus plan. There is some form of recognition program. This could mean hockey tickets, publication, ceremonies however, the plan is not consistent.
- 4) Could have project or ad hoc teams.
- 5 & 6) Some of the training is internal but depending on the nature of what is required, outside consultants will be used. We as a corporation will decide what is needed. Then, we get consultants to prepare courses for us. We try to choose those that best fit our needs. We, then train our own people to become trainers, it is like a pyramid.
- 7) No it does not reinforce individual behaviour. When the team reaches its goal, we expect team will do its job as well as industry will do its job.
- 8) We use operational measures. We focus on customer satisfaction and employee satisfaction.
- 9) The performance-reward is used at the organizational level - it is for everyone. However, some bonuses apply to managers only.
- 10 & 11) Both management and non-management. However, some plans vary for management employees.
- 12) Plan has been in effect several years. Restructured about one year ago.
- 13) Manufacturing.
- 14) In my plan - 10,000 employees
- 14(a) Total number approximately - 50,000.
- 15) Business performance has increased. Don't know by how much.

16) Usually customer satisfaction through interview informants.

17) Quarterly or twice a year.

18) To be more competitive and effective.

19) Does not apply. Bigger reward on a quantity basis - not tied in.

Please be advised that bonuses for senior management is more complicated than questions asked!

20) Unionized. I cannot provide more information as I am not involved in this aspect at all.

Company Name: Bell Helicopter

- 1) Their program is called "Assured Quality" or "Assurance Qualité".
There is a suggestion program and customer employee teams.
70 to 80 percent of their work is done by teams. They pay less attention to the words TQM and try to focus on customer needs.
- 2) Yes. Very strong support by senior management.
- 3) There is a reward plan: It ranges from \$100.00 to \$500.00 There is a meeting every month in order to determine what rewards will be distributed.
- 4) There is a Self-directed work team comprised of 6 to 18 people. This team is highly autonomous and takes care of everything. This could include labour relations and technical skills.
- 5) There is technical cross-training which allows members to move within the team and also move to a higher position.
- 6) There is a specific department that is in charge of training.
- 7) Do not necessarily pay team members for learning. It is part of their job.
- 8(c) Combination plans. Measure productivity, quality, the number of accidents, bottom-line results (profits)
- 9) Organization-wide. However, some members of the staff do not participate.
- 10 & 11) Both
- 12) Plan in effect - 5 to 6 years. (young)
- 13) Manufacturing
- 14) 1200
- 14(a) 1280
- 15) Stable. Has not increased or decreased.

16- Measure customer satisfaction - Set goals to trigger bonuses. However we do not have questionnaires.

17) Every 2 months

18) To give incentive to employees, foster motivation.

19) 3 months

20) Non-unionized

Comments: Company was founded in 1984. We started with one model of helicopter and we now have, five different models. We deliver a helicopter every one and a half days.

Company Name: Xerox Canada

1) Yes.

2) Yes supported by senior management.

3) There is a bonus plan. Based on customer satisfaction and other performance measures. There is an everyday employee program based on success of employee's contribution in achieving customer satisfaction and profit targets.

For Xerox, quality means satisfying customer needs.

Xerox won the 1989 Top Quality Management Award.

3(d) Once a year

4) We do have teams that come together but they are not self-directed teams. They are service groups or service teams. They also can win awards based on their group performance.

5) Yes. There are four days basic training when they start. This is part of our new employee orientation. We have different special quality courses that are available for them to take.

6) The training is done in-house.

7) No.

8) Combination of both. Measure market share, customer satisfaction, return on assets and employee satisfaction.

9) Business Unit.

10 & 11) Both management non-management.

12) Effective date - approximately two years.

13) Manufacturing and Service

14) 3500

14(a) 3500

- 15) Increased but cannot say at present time if it is due to implementation of TQM.
- 16) Customer satisfaction
- 17) Monthly and Quarterly
- 18) To provide incentives to employees, to improve profit and customer satisfaction.
- 19) Year end - once a year for some - or for some special performances, every 3 months.
- 20) Part of the organization is unionized.
Manufacturing and Distributorship
- 20 (a) Was not involved in selling the idea of the plan to the union.

Company Name: Winnipeg's Reimer Express

1) TQM program is based on the 14 principles of Deming. Ninety-nine percent of activities are identifying core processes, decreasing administrative costs and improving cycle time.

- Meeting internal and external customer needs and the overall objective is to reduce errors. There is a certain level of empowerment that is present. If the service staff feels that 25 steps can be done in 10, then it is up to employees to correct it, with approval from upper management. They have the power to change or make the system work better.

2) TQM strongly supported by all executives and senior management. They are involved in all aspects of the business. Information trickles up and down to employees on a daily basis.

3) They do use a bonus plan which pays a share of company profits to individuals. If quality objectives are met, and there is an increase in company profitability, then employees receive a certain percentage based on their annual salary.

4) The Company does not have a self-directed team but has teams. There are "corrective action teams or "employee involvement teams". They all measure core processes, flow charts... in order to reduce errors...

5) No. Teams do not receive training but employees receive training with respect to the quality process. Every employee receives training about "why" TQM has been adapted, how it affects them, and the organization.

6) Each employee has approximately three hours training about the quality process. This is usually done in-house.

7) No. Teams or individuals are not paid for training. Reimer feels employees should be willing to learn about quality as part of their jobs. It is not something they should be paid for.

8) Use both financial and operational measures: they use bottom-line financial results and the deviations associated with core processes.

9) All forms of rewards are paid out at the organizational level. Profit sharing is paid to all employees based on a percentage of their annual salary. Obviously, the higher levels of management receive more than other employees.

10 & 11) The plan is designed for management and non-management employees. The objective is to get all employees involved.

12) Since 1986. Approximately 7 years.

13) Service and manufacturing.

14) There are "1100" employees.

14(a) Same

15) Hard to say. The fact that they are still in business, to them, means that they have stayed ahead of the competition. They attribute part of their survival to TQM and the emphasis on core processes. If they were not getting better, they would not be in business.

16) Measure through employee and customer surveys. Every month the key processes are presented. The emphasis is on reducing errors and continuous improvement.

17) Quality teams reviews information every second week. Executives (on Steering Committee) made up of 10 executives, review information daily - however, this is not necessarily made known to all employees but, employee newsletters usually tell all.

18) With deregulation in the 1980's, if we were not getting better, we would not survive. The introduction of the quality process, made sure all employees were involved. It helped employees and the organization focus on "getting better" together. This is why they focus on "processes" and core processes.

19) ?

20) The organization is unionized.

We think we were successful because unionized employees were asked about their jobs and how to make it better. At least 1 unionized member sits on the quality team. What's good about having unionized members is that they tend to be more vocal on issues that affect them and their work. Provide invaluable feedback - they identify the problem more abruptly. You need to talk about and involve them in issues that concern them. By doing this, they become more enthusiastic and committed to the organization.

b) No rewards but they are involved in setting objectives and improving processes.

c) Specifics of the plan are not outlined in C.A.

d) Bill Lewis - started off in operations, moved to sales. A lot of exposure then concentrated on computer programming the systems aspect of the firm, what goes on behind the scenes. The strategy was adopted on a "do" or "die" basis. Change the way we do business or go broke.

Company Name: Ameritech

- 1) TQM: focus on customer, meeting customer expectations and reviewing programs. Number one priority is customer satisfaction.
- 2) It is now a major cultural transformation that is driven by the company chairman. Have quality objectives written into their management objectives.
- 3) Have employee recognition programs that reward employees that are customer champions, not necessarily monetary rewards. There is public acknowledgement for the superstars. For example, when their ideas are implemented they may be rewarded via a night on the town.
- 4) They do have work teams (400 teams- with 6 to 10 people in each team).
- 5 & 6) Have extensive training (in house training and SPC {statistical process control}) and team building.
- 7) Not applicable
- 8) Combination plan: they use profits and quality metrics. However, there is a greater emphasis on financial measures. It is still considered more important.
- 9) Organization-wide. Different degrees of implementation.
- 10 & 11) Both management and non-management.
- 12) November 1990
- 13) Service
- 14) 70,000
14(a) 70,000
- 15) Business results improved. Process review: review routine work to determine if process is working.

16) The way you want to make improvements is to shrink deviations " zero defects". This can be done with problem-solving teams and scientific teams. Processes have to be documented in order to improve their ability to serve customers.

Criteria used is mostly scientific measurement (statistical process control)

17) Monthly to quarterly depending on the nature of the information that has to be shared. For example, financial indicators would be given on a quarterly basis.

18) Because of market demands. Customers wanted more.

19) N/A

20) Unionized. (35,000/70,000)

20(a) Involved partners from the beginning. Leadership level all the way down.

20(b) Yes. The union is on an executive counsel.

20(c) There was state by state bargaining.

Company Name: G.E. Sylvania

- 1) There is total quality across the company. Teams of employees working on problems, creating solutions.
- 2) Yes. President of the company is the chief advocate of the program.
- 3) No. Non monetary. Emphasis is on doing a better job in while making a contribution to the company.
- 4) Teams vary between 4 to 8 people. Not necessarily self-directed teams.
- 5) There is some training, initially in TQM.
- 6) Training is done in house.
- 7) N/A
- 8) Both financial and operational.
- 9) Organization-wide.
- 10 & 11) Both.
- 12) Around 1985.
- 13) Manufacturing. (Light bulbs).
- 14) 13,000 (100 or so teams comprised of 4 to 8 people).
- 14(a) 13,000
- 15) Decreased due to the economy. It is independent of TQM.
- 16) Use mostly production measures because of the nature of the business.
- 17) As needed. Could be on a daily or weekly basis or even quarterly.

18) Wide variety of reasons: increase in production, do it right the first time, every time. Safety aspects as well as financial.

19) N/A

20) Some plants are unionized and some are not.

20(a) Was not a problem selling to the union. Initially there was some resistance, but not much now.

Company Name: Nynex

1) Emphasis is on the criteria used in the Malcolm Baldrige Award. Corporation goal to get all our people working within that criteria. There is a great emphasis on customer satisfaction.

2) Yes - Growing.

3) One time reward. Stock options depending which level you are at For example: This could mean cash in a couple of thousands. Managerial employees have a small percentage of their salary at risk. This is usually determined on company performance. There is a strong focus on quality

4) Work teams - no formal team "ad hoc" teams".
We do have self-directed teams.

5) Yes. Combination - internal and external.

6) Depending on the need.

7) Cross-training: There is a rotation but no payment schedule.

8) Combination of operational and financial measures.

9) Organization

10 & 11) Management + Non-management

12) Nynex: 1985 - grown steadily. Fully in place 1990.

13) Service

14) 82,000.

14(a) Same

15) Don't have good quality measures. Performance has increased. Attribute partially to plan.

16) N/A

17) Published on newsletters as needed, monthly basis.

18) Keep people recognizing importance of how we do business. Survival - more customer focused, care about employees. We try to control inefficient processes.

19) N/A

20) Unionized. We have not sold the idea. It was sporadically accepted.

b) Trying to incorporate the union into any and every area. Trying to gain their support by receiving their feedback and input. Their reasoning for initially rejecting the plan was concern for membership, downsizing and attrition. Quality will mean lost jobs.

Company Name: Canadian National

1) Yes we Total Quality. We embarked on the quality journey three years ago. Quality for us means training people to work in teams. We have two courses in house process - improvement and solving problems. The program was implemented department by department region by region.

Our teams are comprised of all employees (management and non-management). Teams are set up and trained. We have two courses:

- Process and implementation = 3 days
- Problems = 2 days

Our emphasis is on internal customer service to external customers. We continually measure customer satisfaction through surveys.

2) Mixed support. Some regions strongly supported. Others not supporting, not successful. Some individuals but very few of them talk about it or act on it. (Actions speak louder than words). The results needed have not been obtained despite, the heavy investment in costs.

One concern - quality action teams don't have their recommendations implemented, has created a big problem. Have to implement recommendations reason for questions: V.P. of Quality abolished. (V.P. of H.R. and Quality)

3) No. Management

There are no rewards but recognition. There is the President's award up to 6 teams/year. Up to 2 teams in 3 categories.

Recognition - people who won got lithograph certificate letter or trip to the top executives recognize those individuals, newsletter.

What they wanted as a reward?

The employees wanted their recommendations implemented and have individual recognition: Supervisor/Managers need to improve this --- have any ideas, I would like to know. Here's my idea, analyze approval - paid as the idea is implemented.

7) Elements of company vision

- 1st in service
- 1st in quality
- 1st in safety
- Environmentally responsible
- Cost competitive - Financially sound
- Challenging - Fulfilling place to work

Our communication is not great. We need to give more information to employees. I think this would greatly contribute to the success of the organization.

4) Quality team: 6-7

5) Find true temporary teams aside from regular work.

Other courses - how to function within a team.

-Statistical Process Control.

6) N/A

7) N/A. Learn from each other.

Facilitator - resource for the team.

Fine tune presentations, analytical skills.

8) The most important issue is customer satisfaction.

Operational and financial measures. How to measure performance as a company?

A big issue for us is safety.

Other important indicators are: customer satisfaction, improved service elements and be cost competitive. We use customer and attitude survey.

9) Organization-wide, departments, region

10) Management and Non-management

11) Our plan is designed for executives. If targets are met that are set out in business plan objectives, if met, then there is a bonus for Top-Management.

Right now there are pilot projects: Profit-Sharing: small group of employees - where everyone is included.

12) 4 Years

13) Service industry - transportation

14) 32,000

14(a) 32,000

15) Decreased, but partly due to recession. There is a problem throughout the industry.

Is it better or worse with quality: better than it might have been.

We are improving our service to external customers because teams have been set up specifically to improve service to our customers.

16) Team level depends on their defined problem and process to reach goals.

We look at: transit time, damage control, operational measures and expense reduction

17) Company newsletter - 6 times/year. Some information is given out quarterly.

18) Reason: Have total corporate cultural change. In 1988, interviews were conducted in order to determine where we wanted to go.

We decided that instead of running an outstanding business we were going to focus on customers.

The idea was that we are a government service, we are not here to make money.

19) Teams, but no payout.

20) Unionized.

20(a) Primary concern of union. TQM leads to job cuts. At least quality helps the organization to survive. Rush for C.N. to give guarantee that no jobs would be cut. Was not realistic. Certain areas there was a negative reaction to the program. Presentations being made. Skill based as needed.

Union reps went to presentations and encouraged employees to leave with them. After a couple of meetings employees stayed and forced union leaders to stay.

Union executive: discretely stipulated that it was O.K. with him to go with quality. Passive acceptance. Not supported, no real problems. Unionized employees focused on teams to improve service to outside services. Don't cast blame on employees in the process. Have not blamed the employees.

Facilitators - solution that implies job cuts - 2/3 of unionized employees go out of room, can't support.

Cost reduction: getting more for less. Job cuts come with it as well.

20(b) Not involved in programs.

20(c) No financial implications, not necessary.

Suggestion plan: 1949 - individually based

Pilot project: profit-sharing with 25 employees local agreement with five unions.

20(d) Very strongly supported. The program has led to big changes. However, some of the changes are subtle, pervasive, some people don't realize it.

Have been with the company for five years.

Company Name: AT & T

1) Chairman's Quality Award Process, based on the Malcolm Baldrige Principles. There is drive for TQM throughout all facets of the company.

2) Yes. TQM is supported by Senior Management, especially by chairman. In 1988, the issues were addressed and the redirection for AT & T was announced. The restructuring was outlined and focused on markets. There was an emphasis on customers. We adopted a quality strategy that encompassed all business units. In 1985 the Quality policy was issued. It outlined the principles of the redirection. We even have a V.P. of Corporation Quality.

There was a Company wide assessment where they wanted to go with quality efforts and they provided recommendations.

In 1988 the AT & T Steering Committee was formed. It included Quality Managers and Directors. The focus was on the overall needs assessment for customer orientation and the quality and tools needed.

There was representatives from every business unit on the steering committee. March 1990 - Chairman led the quality process that became part of the Baldrige program. All quality processes were focused and directed from the Baldrige Award.

3) AT & T has a savings plan where AT & T matches 2/3 or up to 6% of an employee's salary.

Merit Pay = individual performance --> cash (will be rewarded when there is an increase in performance or outstanding performance.

- Personal bonus -- exceptional job = several thousand dollars.
- Annual award: percentage allocated to employees.
- Executive bonus is based on how you manage your people. Use financial indicators. Everyone happy, increased business = \$\$
- There is also a recognition program: employees are rewarded with plaques, dinners.
- There is also the Chairman's Award: Ceremony given by chairman for exceptional performance. Individual employee has time to spend with executive.
- Also awards for quality.

4) we have self-directed teams. Certain units work together on a daily basis. Improve processes, quality, management improvement, certain issues of importance.

5) Training provided on everything.

6) Improving techniques, quality, certain facets of the quality program. Organization gives 40 hours of training per year per individual.

7) Training is a must. Company does not reward individual for training.

8) Use both operational and financial measures. Increased shares and profits. Operationally it is imperative to meet both internal and external customer needs. Focus on empowerment, allow employees to increase business - make everyone happy. Go out of the company to purchase something if they see it is cheaper. Do whatever is best for the Company. This allows them to increase their stake in the business and performance.

10 & 11) Both management and non-management.

12) 1985 and 1988.

13) Service

14) 315,000

(b) 1/3 are unionized.

15) Performance has increased and decreased. Stock up 40%
Some attributed to quality program, some attributed to the acquisition of NCR.
TQM has validated important strategy power to develop a strategy and execute TQM.
Validated in the eyes of stockholders, customers.

16) Quality score: if the customer is happy and there is added value to services, then there is an increase in overall performance and firm performance.

17) Newsletter distributed daily. Indicates new acquisitions, how well they are doing, current stock prices, etc...

18) Reasons:

- Focus on quality initiatives in order to be successful in the market.
- Decrease costs.
- Satisfying customers.
- Increase market share and profits.
- Differentiate themselves from the competition and the marketplaces.

Whatever they do in their daily operations impacts the company results vis-a-vis their competitors and the market as a whole. TQM is the motivator which in turn develops commitment from employees.

20) Unionized.

(a) Unions are not involved in fixing objectives or fixing awards. They are consulted on the specifics of the plan not outlined in the collective agreement.

(b) Union knows they have to adopt quality initiatives to remain competitive.

Company Name: Pacific Bell

1) Yes.

2) Yes.

- Sponsor Quality Improvement teams
- Integrate quality principles/plans in their business plans
- Presidential Quality Teamwork Award (annual)
- Quality included in Vision/Values Mission
- President requires direct reports to use quality tools in their presentations.

3) Yes.

(a) Company-wide team award and business-unit team awards - given annually for meeting strategic goals.

(b) Based on percentage of pay at each level of management. There is a set amount for non-salaried employees (cannot be more precise).

(d) Annual

4) Yes

(a) There are many types of teams

5) In some cases. We are still working on the training aspect because we realize the importance of training.

6) On the job and formal training.

7) No

8) C - combination plan. We have "Six" Bold Goals (long term) plus the goals for service and profitability associated with the Team Award.

9) Organization and business unit.

10 & 11) Both

12) 1985

13) Service

14) 55,000

14(a) Same

15) Increased

16) Customer satisfaction, use questionnaires, focus groups, panels and phone surveys. More operational than financial.

17) Monthly

18) Buy in by the employees to the company's corporate goals.

19) 2 months

20) Unionized

(a) Negotiated in their contract

(b) No - do not set objectives

(c) Yes - outlined in collective agreement

Company Name: Aetna

1) Yes. Our plan objectives are to reinforce the commitment to strong customer service amongst our employees and increase their awareness of their role in the organization. We focus on internal and external customers.

2) Yes. Strong commitment and support.

3) Bonus plan provides financial rewards for employee contributions at the level of the business unit, this way employees can see how they directly impact the business. We reward results that are attributable to the employee, particularly where the employee and customer interact. The Star Performance Plan would complement base pay by providing a way to relate an employees' total compensation to a specific performance level. (In order for commitment to the program to be effective, employees must share management's vision of what high-quality customer service is, and they must support the mission of providing high-quality, cost-effective insurance products and services. The desire to strengthen each employee's commitment to these ideals led to the development of this plan). We also use "one" time bonuses to reward employees for superior contributions relative to the unit's annual business plan.

3(a) Plan is funded at a rate of 2% of annual base salaries and is developed in conjunction with the yearly budget process. Can't give precise amount because it is based on each individual's base salary. Line managers rank each employee's performance relative to his or her peers and objectives. 80% of all awards range between 1 and 5% of base salary. The average is 3.5%.

3(b) Annually.

3(c) There can be immediate recognition of individual or team performance using small cash or non cash awards, which is recommended for day to day activities. The immediate, unanticipated recognition reinforces to employees that line management is aware of their contributions. Complex tasks can be recognized through larger awards presented when the project is completed.

Awards can be publicly presented and or at informal ceremonies. They focus on employee contributions. Letters are signed by the business-unit head for management's appreciation of employee contributions.

4) The firm does have teams that come together to work on various projects or to improve processes.

5) These teams are not fully autonomous and still rely on some form of supervision however, we are moving in the direction of autonomous teams. But this is not our primary pre-occupation at this moment.

6) There is training given to all employees regarding customer service and ways to improve customer-employee relations. All training is focused on delighting the customer and ways to achieve it.

7) Training is given in-house.

8) Use both operational and financial measures. Line managers define which customer service activities have the potential to be recognized with bonus awards. (As mentioned previously, customer service is key). Use quantitative standards (customer service ratios and qualitative assessment. Use customer surveys, verbal and written, to identify where projects or activities where superior customer service has occurred. If we only focused on financial measures, our plan would lack credibility because lower level employees could not see the correlation between business objectives and their own efforts.

9 & 10) Plan is designed for management and non-management. However, managerial employees are excluded from participation in the Star Performance Plan.

11) Service.

12) 9,000

12(a) 9,000

13) Increased.

14) Weekly.

15) To increase customer satisfaction and increase employee commitment to the program. Also to remain competitive. We believe that a stronger internal customer service should translate into more responsive levels of external service thereby increasing customer satisfaction.

16) Not unionized.

16(a) N/A

16(b) N/A

Company Name: IBM Rochester

1) Yes. All aspects of the business are focused on Top Quality. The concept of quality at IBM Rochester is linked directly to the customer. Detailed features are created by analyzing the needs and expectations of existing and potential owners of the computer hardware and software manufactured by the Rochester, Minn., site of the International Business Machine Corporation. Customers are directly involved at every step of the product. (from design to delivery, etc...).

2) Strongly supported by Senior Management.

3) The Company uses both formal and informal monetary and non-monetary incentives. Recognition: the Market Driven Quality award for outstanding Individual and Team achievements in quality improvement. IBM has recently moved to a variable pay system which will eventually cover 90% of its exempt and non-exempt employees. Employee compensation will soon be influenced by IBM'S overall corporate pay position relative to its customers. There is also luncheons and receptions to recognize outstanding individual and team performance.

3(b) Hard to say what the exact amount would be.

3(c) Monetary rewards are given out annually however, non-monetary plans are given out on a regular basis.

4) The organization has approximately 350 teams in place. These teams can be cross-functional in nature and can perform a variety of functions. They can identify the needs for equipment, staffing, education and process development. Each quality improvement plan has an owner - a managerial or non-managerial who heads the team.

5 & 6) IBM Rochester invests heavily in education and training, the equivalent of 5 percent of its payroll. Employees are encouraged to develop the skills and expertise for a variety of jobs. IBM Rochester has implemented a management system for Education, which will offer skill planning, needs assessment, individual education plans, and education road maps on-line. (There are 45,000 student days of training a year to 81,000 employees in IBM).

7) No. Team members are expected to acquire new skills with and without being paid. In 1989, about a third of the work force moved into new positions, and 13 percent were promoted.

8 & 16) The firm uses both financial and operational. However, there are 6 critical success factors that are part of the strategic quality initiatives; improved product and service requirements definition, an enhanced product strategy, a six sigma defect elimination strategy, further cycle time reductions, improved education and increased employee involvement and ownership progress toward achieving improvement goals is closely monitored. There is also an emphasis on decreased absenteeism and turnover.

9) The plan is strictly for IBM - Rochester.

10 & 11) Both management and non-management.

12) Since 1981.

13) The service industry - however also involved in some manufacturing processes.

14) 8,000 - 8,100.

14(a) 200,000.

15) Has probably increased but I couldn't give an exact figure. The information is confidential. Between 1986 + 1989 - there was 30% improvement in productivity.

16) See 8.

17) In-house commission is given on a daily to weekly basis.

18) Wanted to focus on the customer - customers are active participants in decisions that affect them.

19) Usually a year for monetary plans.

20) No.

Company Name: XXXX

1) Yes, they have a quality program that is based on customer satisfaction and zero defects. Their motto is to get it right the first time.

2) The program is very strongly supported by senior management. Without commitment from the top, the program would never have been successful.

3) Compensation plan is performance-based and is weighted heavily on quality measures. Key executives can earn up to 40% of their salaries in performance-based bonuses. 85% of other employees participate in some incentive program.

3(b) Could not give a precise amount because it is based on salary but it is definitely more than \$1000.00 per employee.

3(c) There is immediate recognition for exceptional performance with cash or other awards. (Can be cash or pins for meritorious efforts). The "Bravo Zulo Award" meaning "well done". The "Golden Falcon" for outstanding customer service.

4) There are several types of teams. Presently, there are 4,000 Quality Action teams. These teams empower employees to solve problems to satisfy customers without time-consuming approvals.

5) These teams are almost fully autonomous. The firm Express allows employees and teams to do everything humanly possibly to get the job done and to satisfy customers.

6) Each employee must learn the fundamentals of quality. Employees attend two programs: Quality Advantage and Quality Action Teams. They receive instruction on the basics of quality management and quality team development.

7) Has more than 650 full-time trainers at sites around the world.

8) We use both financial and operational measures (employee attitude surveys, satisfaction surveys to measure and identify problem areas).

9) Both management and non-management.

10) Late 1980's.

11) Service

12) 70,000

12(a) 70,000

13) Performance has increased but is steadily decreasing because of restructuring abroad.

14) Information is shared with employees on a daily basis and there is a strong emphasis on top down communication. We do not feel that withholding information is consistent with quality programs.

15) In order to stay competitive, we didn't want to lag behind the competition. Our thinking was we have to change the way we do business for the long-term, it was not a quick fix remedy.

16) Yes, we are unionized.

16(a) The union has accepted the plan but it took a long time to get them on board. We learnt that they had to be involved in all facets of the program not on an ad hoc basis.

16(b) They are involved in most decisions that affect them but it is not an open-book every time we discuss something that will affect them as a group.

Company Name: Cadillac Car Division

- 1) Our quality program is based on Deming's principles of quality.
- 2) Strong support. That was never a problem. To make a quality program work it is essential that your CEO be committed to the program.
- 3) We have a profit sharing plan.
 - 3(b) Approximately \$500.00 or more but less than \$1000.00
 - 3(c) Cadillac managers can give up to \$500 instantly under the Spontaneous Recognition Award Program.
- 4 & 5) There are 55 teams that direct the entire product development process. More than 60% of Cadillac's employees are members of some type of team. Cadillac has created semi-autonomous work teams with supervisors retaining authority to deal with scheduling and disciplinary problems.
- 6) In 1990, a union-management team recommended that skilled hourly workers receive 80 hours of quality training. This training included statistical quality methods, health and safety issues and leadership skills. Supervisory employees were offered 3 to 4 courses based on Deming's Leadership and Quality Models.
- 7) Top level managers must attend quality training courses first and then teach the courses to the next level of managers. This helps build top level ownership of the quality message while reinforcing the importance of training to lower-level employees. Sent over 1400 employees to a 4 day W. Edward Deming quality training program at a cost of over \$650.00 per employee.
- 8) Use both financial and operational. (all of those mentioned surveys, customer feedback, decreased absenteeism, etc..)
- 9) Management and non-management.
- 10) Mid 1980's. I was not a member of the firm at the time.
- 11) Manufacturing.
- 12) Missing, I cannot give a precise figure.

13) Has always increased but now there is a downturn.

14) Daily if it is related to output or quality control. Other types of information could be communicated on a monthly basis. Information that doesn't directly impact the employees.

15) Basically to increase our share of the market and remain competitive.

16) Yes.

16(a) Have not accepted the plan completely but both union and management are working towards complete cooperation. However, we do have a very good relationship with the union. There are several joint committees.

16(b) Fairly high level of involvement.

Company Name: Globe Metallurgical

1) Yes. Our quality program is based on the criteria used by the Malcolm Baldrige Award. In 1985, Globe set out to be the lowest cost, highest quality producer of ferroalloys and silicon metal in the U.S. The program is for the entire company. Goals for quality improvement are integrated into strategic planning and research and development activities. We are dedicated to the continuous improvement always looking for new and innovative ways to improve the process. Each customer receives a product designed and tailored exactly to its' specifications. The quality system fails if as customer receives a product that does not perform to the customer's expectations.

2) Our program is strongly supported. Top management has been involved from the very beginning. They have developed a vision, mission, and have postulated the strategic objectives and key performance indicators that have helped support the quality program.

3) Yes we are using a compensation program. Have a profit sharing and quality bonuses plan.

3(a) The reward is a little more than \$1000.00

3(b) Can be driven by a goal or annually.

3(c) There is an employee suggestion program with immediate recognition for a myriad of things: jackets. caps, patches, bags, etc...

4) There are process teams that investigate high-level functional processes that have a critical impact on the company or the division to satisfy customer requirements. There is also corrective action teams that have been formed to address and formulate the fixes needed to improve pieces of the processes that have been identified and investigated by the critical process teams.

5) These teams are not however, completely autonomous. However, on weekends, there are no supervisors needed in the plant.

6) Yes. There is Quality education for all levels of management and employees as part of the TQM process. Upper management serves as the facilitators in the quality training activities.

7) There is a TQM guru who is usually an outside consultant who will train higher level of management so they in turn can train lower level employees. This type of training will start to open the eyes of all employees to the fact that management is serious and that they are looking for total employee involvement for economic survival.

8) We use both: more specifically, SPC. All managerial staff are trained in SPC. There is presently a company-wide quality improvement system termed quality, efficiency and cost.

9) Both management and non-management.

10) Since 1985

11) Manufacturing.

12) 210

12(a) 210 (Smallest company to ever win the Baldrige Award under 500 employees).

13) Business has increased. There has been a 380% increase in productivity in 3 years. There has been a 40 to 1 return on the money invested in the improvement process. Returned products are down from 44 to zero in two years. Our share of the ductile market has increased from 5 to 50% in 3 years.

14) Monthly.

15) To increase our market share and increase profitability and sales.

16) Yes.

16(a) Yes. Implementation was never a problem. Early on, the employees embraced the concept that job security and the production of a quality product may be directly related.

16(b) The employees, through quality circles on the plant and even the interplant level are constantly putting forth ideas to improve quality, efficiency and cost.

Company Name: G.M. Saturn

1) Yes. Quality is a given and a must.

Meeting and exceeding the customer's requirements and expectations on a consistent basis is one of the key strategies contributing to the success of Saturn.

There are a series of quality councils that set quality goals and provide general direction in terms of quality elements.

2) Yes. Strongly supported.

3) The reward system in Saturn will recognize certain critical elements including mission and philosophy, the necessity, that Saturn will be profitable and the principle of risk and reward.

- They receive base compensation.

- Risk/ reward - In addition to base rate a risk/reward system will be phased-in by increments of 5% up to 20% total risk, and will be based on factors such as: a) Performance to objectives of Saturn and Individual Business and Work Units; b) Achievement of specific objective productivity targets; c) Sharing formula through which profits will be shared above a specified level of return to Saturn.

The risk reward system will be designed to provide attainable goals which, if met, will provide compensation equivalent to that earned by comparable employees in GM.

3(b) Hard to give a precise figure but definitely more than a 100.00\$

3(c) Payouts can be quarterly or annually.

4) There are what we call Work Units. Who are responsible for the day-to-day building of cars and the monitoring of product quality. A work unit is defined as an integrated group of approximately 5 to 6 team members. The Work Units focus on: The use of statistical methods, adherence to Saturn Quality Systems and Procedures; the use of quality tools, (SPC charts, Pareto Analysis; cause and Effect Diagrams, Design of Experiments, pictographs etc.,. Quality related education; including problem-solving techniques in a team environment, team motivation and enthusiasm).

5) Employees receive extensive training: Work teams are responsible for their own training. The Work Unit is responsible for assisting in the identification of the work units' training needs, utilization of the available resources, and primary delivery of the information of skills to work unit members for the purpose of ensuring world class automotive workers.

6) Training is in-house.

7) No.

8 & 16) Both: emphasis on customer satisfaction..

Saturn listens to the "Voice of the Customer" not only do they have customer feedback warranty data, but they also use J.D. Powers. Can independently generate customer satisfaction comparison, to determine how customers feel about their products in comparison to the competition.

9) Within Saturn specific division of GM.

10 & 11) The plan discussed here covers non-management but there is also a reward plan for management.

12) 1985 -1988 - Memorandum of Agreement.

13) Manufacturing.

14) 7756 (TN)

14(a) 8598 (MI)

15) Increased.

16) See 8.

17) Information can be shared daily to weekly.

18) Not only to produce a high quality small car but, whether U.S. automakers could still compete and more importantly, to regain their competitive edge.

19) The rewards are usually distributed on a quarterly basis but occasionally, some forms of compensation can be given out annually.

20) Yes.

20(b) There are Quarterly Councils composed of both union and management team members that meet on a periodic basis. The highest Quality Council in Saturn is chaired by the President of Saturn's Local UAW (1853) and the President of Saturn Corporation.

Company Name; Ford Motor Company

1) Yes. Ford uses a form of Top Quality Management. As a Company, we have utilized statistical Process control based on the teaching of Mr. Edward Deming. This is coupled with a strong focus on the team approach at all levels within our organization.

2) Yes, it is supported by senior management and the level of support is very strong.

3) As a company there is a union negotiated Profit Sharing Plan which covers both hourly and salary employees. Higher level management has a bonus plan. Needless to say, as the company benefits, so do the employees. In addition, Ford also has recognition for individuals teams based on Quality Financial Improvements - one example is Customer Driven Quality Awards.

3(b) Profit Sharing varies based on financial results. For 1993, the average was just announced, will be 1350.00.

3(d) Payouts are annually based on profits for the Corporation.

4) Yes, the organization has a multitude of work teams. There are ergonomic teams, safety teams, subsystem, variability reduction teams and joint union-management teams.

5) Yes. Ford has a very extensive training program for its employees. the training covers a wide range of subjects from technical (Robotics) to Human Resources to Statistical to Computer Usage. Quality training is a paramount importance and is on-going.

6) Training is given by both outside and in-house consultants.

7) No.

8) The organization uses both financial and operational measures. Customer satisfaction, employee satisfaction, reduced absenteeism, reduced turnover, number of defects, productivity measures. etc ... Greatest emphasis is on customer satisfaction, we have a great responsibility to our shareholders.

9) Organization-wide.

10 & 11) Both management and non-management.

12) Around 1985, Ford embarked on the use of SPC and the team approach.

13) Manufacturing of automobiles and trucks.

14) Canada and U.S. - 170,000.

14(a) 325,000.

15) Increased. Ford continues to make improvement. The quality in the eyes of the customer continues to get better with Ford having 5 of the top 10 selling vehicles in the U.S.

16) See 8.

17) On a daily basis, information concerning various aspects of the company's business is communicated Via Ford's Communication Network.

18) In the early 1980's the U.S. Auto Industry faced tremendous pressure from Japan. Our quality was not good, we were losing market share - we had to stop the **bleeding!** To survive and prosper, we had to change.

19) 1 year.

20) Unionized.

20(a) As with anything in life, whether for an individual or a group of people - peoples' preferences and attitudes differ. Here in the U.S., the Union is very involved and condones continuous improvement.

20(b) There is a quality section in the Union Auto Workers!

20(c) Ford National and the U.A.W. agreement which provides for the unions input considers Quality to be one of its top responsibilities.

20(d) Yes.

Company Name: XXXX

- 1) Quality program is based on Baldrige criteria.
- 2) Program is strongly supported by senior and top-management personnel. Couldn't succeed without their support.
- 3) Have a gainsharing plan where money is awarded based on the achievement of specific corporate goals.
- 3(b) Could not give a precise amount. Based on base salary which varies from one individual to the next.
- 3(c) The CEO sends congratulatory letters to employees for outstanding quality performance and high performing quality teams are rewarded with dinners and picnics.
- 4) There are teams that deal with site-wide problems on an as needed basis.
- 5) Not really autonomous.
- 6) There are Quality Awareness Programs. Forty hours of training on "The People Side of Quality". We have invested nearly \$750,000 and 19,000 hours of training in our associates since 1988.
- 7) Top associates take courses with employees who also receive assertiveness training so they will feel comfortable making important decisions.
- 8) Use both financial and operational measures (concentrate mostly on customer and employee satisfaction).
- 9) Both management and non-management.
- 10) 1988
- 11) Service
- 13) Decreased but not due to the plan. Customers refused to pay higher prices and we eventually lost a large portion of our market share.

14) From daily to weekly. We hold bi-weekly conferences to acknowledge quality wins and associate suggestions.

15) If we didn't come up with a solution we were not going to survive. Performance has decreased but we do not attribute it to the program. On the contrary, if we had not implemented TQM we probably we would not have survived as long as we have.

16) N/A

Company Name: Canadian Pacific

1) Total Quality is based on the precept that the customer is the central focus of all we do. Objectives encompassed within the program: make sustainable performance improvement; focus on achieving the identified company objectives; develop and support an approach to work that encourages greater involvement in improvement; implement a process-based approach to improvement; solicit everyone's involvement in improvement. There is a great emphasis on benchmarking.

2) The plan is strongly supported. There is a separate quality department.

3) There is a performance management program - employees and teams can set objectives, if those objectives are met, then recognition. Recognition can be a pat on the back to a formal awards ceremony with the president of the company.

Monetary: Quality support department can provide a maximum of \$40. per person per year for the purposes of providing recognition for those participating on Quality Improvement teams. If Performance Management Programs are met and the company if doing well, then there could be monetary incentives. However, this has not been determined.

3(b) Recognition can be daily while monetary incentives are usually annually.

4) The company has several forms of teams. There are Lead and Action Teams. These teams were formed to improve on various aspects of the company's performance. Teams are selected, trained in the Quality Improvement Process and are facilitated in order to reach their objectives.

Types of Training for Teams.

Quality for work groups: this is designed for groups/departments which will be working with implementing solutions or recommendations from action teams. This workshop focuses on the work process (es) affected and develops the group's ability to sustain lasting improvement through understanding of processes and monitoring and corrective techniques. It also highlights and serves the need for communication of information to all affected by the changes.

Improvement Workshops

Designed to focus on problem solving, this workshop introduces a natural work group to the practical application of Top Quality tools and processes by taking on a problem solving activity at that group's level. The workshop is intended to be short duration and focus on results. This vehicle is intended to be used on a broad scale at all levels of the organization.

5) There is a great emphasis on training:

There are various courses that are given: "Delivering Quality" - introduction and general awareness of Top Quality approximately 4300 employees that have been trained.

"Sponsoring Quality": provides understanding of role of Sponsor of a team and sponsor of team activities - this is provided to managers who may be required to fill this role.

"Team Leader": covers the role of a leader of a team and the reporting process, group dynamics and meetings.

"QI Team": introduces the CP's Quality Improvement process and tools.

6) All training is in-house.

7) Not applicable.

8 & 16) Uses both: bottom line financial results and cost reduction.

Also use performance indicators, cycle time of cars reliability of locomotive fleet, increased reliability, reduced trade inventory.

9) Specific Work groups.

10) No

11) Yes (Management only)

12) Since 2 1/2 years.

13) Service

14) 4,700 (non-unionized) management.

14(a) 25,000 (including unionized).

15) increased.

16) Use standard surveys - customer satisfaction for C.P. customers.

17) Depends on the level of the employee. Some specific communication media for quality at CPR's presently used include: C..P Rail System News: A monthly letter to all CPR's employees. C.P. Rail System Video News: A bi-monthly video production to all CPR's employees. Newswatch, businesswatch, delivering quality bulletins, messages generated and sent over company. E-mail system to selected managers and union leaders. Various insert messages, posters as required sent to target audiences.

18) Everyone was doing it: we wanted to know and experience what Top Quality could do for us and after an in-depth analysis of the benefits and drawbacks, if done properly, the benefits definitely, outweighed the drawbacks.

19) Not really applicable. Still in the process of establishing a reward plan.

20) Organization is unionized but this plan doesn't cover unionized employees. They were invited and asked to participate but have rejected the plan to date. They feel it may put them in a vulnerable position. However. CP is still working on getting them involved.

Company Name: Pillsbury Canada

1) Our program focuses on the customer (grocery trade), employees, clients, and measuring internal processes. We are looking at where we are now and, where we want to be. Always looking to improve. We track everything in areas that affect us and that affects others. Looking at how we implicitly or explicitly manage our business.

2) Yes. But it is hard to indicate the level of support.

3) Compensation plan and incentive plan that covers all managerial, executive and hourly employees. Hourly employees have a gainsharing plan. There is a VIP Plan which encompasses a Corporate Profit Component. There is also a Team and Individual Objective Plan whereby both set up goals to reduce costs, improve processes and quality improvements. The result - a calculated percentage of salary payout.

3) Missing (0-15%) of base salary

3(b) Payouts are annually. For the sales team twice a year.

3 (c) Have recognition for something special. Formal recognition by the President of the of the company.

4) Yes, we have process teams that work on key processes and work on improvements in all facets of processing. We do not have self-directed teams but we are headed in that direction.

5) N/A

6) Yes. However, the training is tailor-made. Usually done one business-unit at a time. The training is customized to meet specific needs.

7) Training is given by internal and external consultants.

8) Use both financial and operational measures. Rigorous financial measures and also employee satisfaction through surveys. Survey given every two years about 125 questions.

9) Designed for both.

10) About 5 years.

11) 1200

12(a) 1200

13) Volume is strong and market share has increased.

14) Monthly

15) Our reasons for introducing the plan were to stay competitive.

16) We are unionized.

16(a) Depends on which plant. Some have accepted and some have not. I think it depends on the type of relationship management and unionized personnel have.

16(b) I could not measure the level of involvement.

Company name: B.C. Telephone

- 1) Entire program is based on the Baldrige criteria.
- 2) Medium support from senior management however, I could not comment on the reasons.
- 3) Yes, we are using a compensation program that ties Management bonuses to Service levels, costs and profits.
 - 3(a) Approximately 15% of base salary therefore, it varies from one individual to the next.
 - 3(b) Payouts are given out annually.
 - 3(c) There are Leadership Awards for outstanding performance.
- 4) Yes we have work teams but the information is too extensive to give details.
- 5) The teams are somewhat autonomous but still rely on supervisory personnel. Their duties revolve around customer service and all other facets within a team.
- 6) Training is provided on Quality Tools. How to increase their efficiency with respect to quality.
- 7) All training is given by inside consultants.
- 8) We use both financial and operational measures. (Bottom-line financial results) in conjunction with employee and customer satisfaction, reduced turnover, absenteeism, etc...)
- 9) The plan is designed primarily for management personnel.
- 10) The plan has been in effect for approximately 3 years.
- 11) Communications or service industry.
- 12) 12,000

12(a) 2000 are covered by the plan.

13) Performance has definitely increased.

14) Information is communicated on a weekly basis.

15) Move faster and stay ahead of the competition.

16) Unionized.

16(a) The union has not accepted the plan.

16(b) The union is not involved in setting objectives. They are not involved but this is not our doing.

Appendix IV- Coded Questionnaire

- 1) Does the firm have a recognition plan?
 - (0) No
 - (1) Yes
 - (9) Missing

- 2) Does the firm have a monetary plan?
 - (0) No
 - (1) Yes
 - (9) Missing

- 3) If the firm does have a monetary plan, what type of plan is it?
 - (1) Profit sharing and/or gainsharing plan
 - (2) Individual, team, or other form of monetary plan
 - (3) A combination of above
 - (4) Not applicable
 - (9) Missing

- 4) If you do give out monetary rewards, what is the size of the reward per employee?
 - (1) Btwn 0 - \$100
 - (2) More than \$100 but less than \$500
 - (3) More than \$500
 - (4) Not applicable
 - (9) Missing

- 5) Who is eligible under the proposed plan?
 - (1) Management
 - (2) Non-management
 - (3) Both
 - (4) Not applicable
 - (9) Missing

- 6) What type of performance metrics are used by the firm?
- (1) Operational
 - (2) Financial
 - (3) Combination of both
 - (9) Missing
- 7) If you use operational metrics, what type of metrics do you use?
- (1) Customer or employee satisfaction
 - (2) Productivity measures (SPC)
 - (3) Reduced number of defects
 - (4) Reduced turnover and absenteeism
 - (5) More than one of the above
 - (6) Not applicable
 - (9) Missing
- 8) How would you rate the firm's involvement in the plan?
- (1) No involvement
 - (2) Low involvement
 - (3) Medium involvement
 - (4) High involvement
 - (5) Very high involvement
 - (9) Missing
- 9) How would you rate your degree of success since the introduction of the monetary or non-monetary plan?
- (1) Decreased
 - (2) Same
 - (3) Increased
 - (9) Missing
- 10) If your plan is supported by senior management, how would you rate the degree of support?
- (1) Not supported
 - (2) Mixed support
 - (3) Supported

- (4) Strongly supported
 - (5) Very strongly supported
 - (9) Missing
- 11) If there are monetary rewards, what is the frequency of the payout:
- (1) Driven by goal
 - (2) Monthly to quarterly
 - (3) Annually
 - (4) 1, 3
 - (5) Not applicable
 - (9) Missing
- 12) Are there any type of teams used within the organization?
- (0) No
 - (1) Yes
 - (9) Missing
- 13) If you do have teams, what kind of teams are they?
- (1) Parallel/Problem Solving
 - (2) Project/process teams
 - (3) Work teams or self-directed teams
 - (4) Not applicable
 - (9) Missing
- 14) If you have a work team, how would you rate the autonomy of this team?
- (1) Not autonomous
 - (2) Fairly autonomous
 - (3) Autonomous, but still rely on supervisory direction
 - (4) More than very autonomous
 - (5) Not applicable
 - (9) Missing

15) Does the firm provide training to employees?

- (0) No
- (1) Yes
- (9) Missing

16) If the firm does provide training, how would you rate their involvement in these training programs?

- (1) No involvement
- (2) Low level of involvement
- (3) Medium level ...
- (4) High level ...
- (5) Very high
- (6) Not applicable
- (9) Missing

17) If you are using a monetary plan, at what level of the organization do you provide rewards?

- (1) Organization or business unit
- (2) Facility or specific site
- (3) Work group, individual
- (4) Not applicable
- (9) Missing

18) How long has your plan been in effect for?

- (1) Less than 2 years
- (2) 2 to 5 years
- (3) 6 to 10 years
- (4) More than 10 years
- (9) Missing

19) What type of industry do you specialize in?

- (1) Service
- (2) Manufacturing
- (3) Both
- (9) Missing

20) How many employees are covered by the plan?

- (1) 0-500
- (2) 501-1000
- (3) 1001, but less than 5000
- (4) 5001, but less than 10,000
- (5) 10,001 but less than 50,000
- (6) 50,001 +
- (9) Missing

21) How often is information regarding the firm communicated to employees?

- (1) Less than once a year
- (2) Annually
- (3) Quarterly
- (4) Monthly
- (5) Daily to weekly
- (9) Missing

22) Does the monetary or non-monetary plan cover unionized employees?

- (0) No
- (1) Yes
- (9) Missing

23) If the plan does cover unionized employees,, would you say the union has accepted the plan?

- (0) No
- (1) Yes
- (2) Not applicable
- (9) Missing

24) How would you rate the union's involvement in the plan?

- (1) Less than a low level of involvement
- (2) Medium level of involvement
- (3) High level...
- (4) Very high level...
- (5) Not applicable
- (9) Missing

Appendix V - Results

Company Name: E.D. Smith

1) 1	21) 2
2) 1	22) 1
3) 1	23) 2
4) 1	24) 5
5) 3	
6) 3	
7) 5	
8) 4	
9) 1	
10) 4	
11) 1	
12) 1	
13) 1	
14) 5	
15) 1	
16) 3	
17) 1	
18) 2	
19) 2	
20) 1	

Company Name: Westinghouse

1) 1

21) 2

2) 1

22) 1

3) 2

23) 2

4) 2

24) 5

5) 3

6) 3

7) 5

8) 4

9) 1

10) 3

11) 3

12) 1

13) 2

14) 5

15) 1

16) 5

17) 1

18) 3

19) 2

20) 1

Company Name: G.E. Bromont

1) 1	21) 2
2) 1	22) 1
3) 1	23) 2
4) 9	24) 5
5) 1	
6) 3	
7) 5	
8) 3	
9) 1	
10) 4	
11) 2	
12) 1	
13) 3	
14) 2	
15) 1	
16) 5	
17) 3	
18) 2	
19) 2	
20) 1	

Company Name: Steelcase Grand Rapids

1) 1	21) 2
2) 1	22) 1
3) 3	23) 2
4) 1	24) 5
5) 3	
6) 3	
7) 5	
8) 5	
9) 1	
10) 5	
11) 1	
12) 1	
13) 3	
14) 3	
15) 1	
16) 5	
17) 1	
18) 2	
19) 2	
20) 4	

Company Name: Florida Light & Power

1) 1	21) 1
2) 1	22) 2
3) 1	23) 1
4) 2	24) 3
5) 3	
6) 3	
7) 5	
8) 5	
9) 1	
10) 5	
11) 3	
12) 1	
13) 1	
14) 5	
15) 1	
16) 4	
17) 1	
18) 4	
19) 1	
20) 5	

Company Name: Motorola

1) 1	21) 1
2) 0	22) 1
3) 4	23) 2
4) 4	24) 5
5) 3	
6) 3	
7) 5	
8) 5	
9) 1	
10) 5	
11) 5	
12) 1	
13) 2	
14) 5	
15) 1	
16) 5	
17) 4	
18) 3	
19) 2	
20) 6	

Company Name: Xerox (United States)

1) 1	21) 1
2) 1	22) 2
3) 1	23) 1
4) 9	24) 4
5) 3	
6) 3	
7) 5	
8) 5	
9) 1	
10) 5	
11) 2	
12) 1	
13) 3	
14) 4	
15) 1	
16) 5	
17) 1	
18) 4	
19) 1	
20) 6	

Company Name: Digital Equipment

- | | |
|-------|-------|
| 1) 1 | 21) 3 |
| 2) 1 | 22) 1 |
| 3) 2 | 23) 2 |
| 4) 1 | 24) 5 |
| 5) 3 | |
| 6) 3 | |
| 7) 1 | |
| 8) 4 | |
| 9) 2 | |
| 10) 2 | |
| 11) 3 | |
| 12) 1 | |
| 13) 2 | |
| 14) 6 | |
| 15) 1 | |
| 16) 4 | |
| 17) 1 | |
| 18) 4 | |
| 19) 1 | |
| 20) 5 | |

Company Name: Toronto Cadet Uniform

1) 1	21) 1
2) 1	22) 1
3) 2	23) 2
4) 9	24) 5
5) 3	
6) 3	
7) 5	
8) 5	
9) 1	
10) 5	
11) 3	
12) 1	
13) 2	
14) 5	
15) 1	
16) 5	
17) 1	
18) 4	
19) 1	
20) 1	

Company Name: Northern Telecom (Canada)

1) 1	21) 3
2) 0	22) 2
3) 4	23) 9
4) 4	24) 9
5) 3	
6) 3	
7) 5	
8) 3	
9) 1	
10) 4	
11) 5	
12) 1	
13) 1	
14) 5	
15) 1	
16) 4	
17) 4	
18) 2	
19) 2	
20) 5	

Company Name: Bell Helicopter (Quebec)

1) 1	21) 3
2) 1	22) 1
3) 2	23) 2
4) 2	24) 5
5) 3	
6) 3	
7) 5	
8) 5	
9) 3	
10) 5	
11) 2	
12) 1	
13) 3	
14) 4	
15) 1	
16) 4	
17) 1	
18) 1	
19) 2	
20) 3	

Company Name: Xerox (Canada)

1) 1	21) 2
2) 1	22) 2
3) 2	23) 9
4) 9	24) 9
5) 3	
6) 3	
7) 5	
8) 5	
9) 1	
10) 5	
11) 3	
12) 1	
13) 2	
14) 5	
15) 1	
16) 5	
17) 1	
18) 1	
19) 3	
20) 3	

Company Name: Winnipeg's Reimer Express

1) 1	21) 2
2) 1	22) 2
3) 1	23) 1
4) 9	24) 3
5) 3	
6) 3	
7) 5	
8) 5	
9) 3	
10) 5	
11) 3	
12) 1	
13) 2	
14) 5	
15) 1	
16) 4	
17) 1	
18) 3	
19) 3	
20) 3	

Company Name: Ameritech (Telecommunications)

1) 1	21) 2
2) 0	22) 2
3) 4	23) 1
4) 4	24) 4
5) 3	
6) 3	
7) 5	
8) 5	
9) 1	
10) 5	
11) 5	
12) 1	
13) 2	
14) 5	
15) 1	
16) 5	
17) 4	
18) 2	
19) 1	
20) 6	

Company Name: G.E. Sylvania

1) 1	21) 1
2) 0	22) 2
3) 4	23) 1
4) 4	24) 3
5) 3	
6) 3	
7) 3	
8) 4	
9) 2	
10) 4	
11) 5	
12) 1	
13) 2	
14) 5	
15) 1	
16) 3	
17) 4	
18) 3	
19) 2	
20) 5	

Company Name: Nynex (Telecommunications)

1) 1	21) 2
2) 1	22) 2
3) 2	23) 0
4) 3	24) 1
5) 3	
6) 3	
7) 3	
8) 3	
9) 1	
10) 3	
11) 3	
12) 1	
13) 1	
14) 5	
15) 1	
16) 3	
17) 1	
18) 2	
19) 1	
20) 6	

Company Name: Canadian National

1) 1	21) 3
2) 1	22) 2
3) 2	23) 0
4) 4	24) 2
5) 1	
6) 3	
7) 5	
8) 4	
9) 2	
10) 2	
11) 3	
12) 1	
13) 3	
14) 3	
15) 1	
16) 3	
17) 3	
18) 3	
19) 1	
20) 5	

Company Name: AT & T

1) 1	21) 1
2) 1	22) 2
3) 1	23) 0
4) 9	24) 1
5) 3	
6) 3	
7) 5	
8) 5	
9) 1	
10) 5	
11) 4	
12) 1	
13) 3	
14) 4	
15) 1	
16) 5	
17) 1	
18) 3	
19) 1	
20) 6	

Company Name: Pacific Bell (Telecommunications)

1) 1	21) 2
2) 1	22) 2
3) 2	23) 0
4) 9	24) 2
5) 3	
6) 3	
7) 1	
8) 5	
9) 1	
10) 5	
11) 3	
12) 1	
13) 2	
14) 5	
15) 1	
16) 4	
17) 1	
18) 3	
19) 1	
20) 6	

Company Name: Aetna

1) 1	21) 1
2) 1	22) 1
3) 3	23) 2
4) 9	24) 5
5) 3	
6) 3	
7) 1	
8) 5	
9) 1	
10) 5	
11) 4	
12) 1	
13) 2	
14) 5	
15) 1	
16) 4	
17) 1	
18) 9	
19) 1	
20) 4	

Company Name: IBM - Rochester

1) 1	21) 1
2) 1	22) 0
3) 1	23) 2
4) 9	24) 5
5) 3	
6) 3	
7) 5	
8) 5	
9) 9	
10) 4	
11) 3	
12) 1	
13) 3	
14) 3	
15) 1	
16) 5	
17) 1	
18) 3	
19) 3	
20) 4	

Company Name: XXXXXX

1) 1

21) 1

2) 1

22) 1

3) 3

23) 9

4) 3

24) 2

5) 3

6) 3

7) 5

8) 5

9) 1

10) 5

11) 4

12) 1

13) 3

14) 3

15) 1

16) 5

17) 1

18) 3

19) 1

20) 6

Company Name: Cadillac Car Division

1) 1	21) 1
2) 1	22) 1
3) 1	23) 1
4) 3	24) 4
5) 3	
6) 3	
7) 5	
8) 4	
9) 1	
10) 5	
11) 5	
12) 1	
13) 3	
14) 3	
15) 1	
16) 5	
17) 1	
18) 3	
19) 2	
20) 9	

Company Name: Globe Metallurgical

1) 1	21) 1
2) 1	22) 1
3) 3	23) 1
4) 3	24) 3
5) 3	
6) 3	
7) 5	
8) 5	
9) 1	
10) 5	
11) 4	
12) 1	
13) 3	
14) 3	
15) 1	
16) 4	
17) 1	
18) 3	
19) 2	
20) 1	

Company Name: G.M. Saturn

1) 9	21) 1
2) 1	22) 1
3) 1	23) 1
4) 9	24) 4
5) 2	
6) 3	
7) 5	
8) 4	
9) 1	
10) 5	
11) 2	
12) 1	
13) 3	
14) 4	
15) 1	
16) 4	
17) 1	
18) 2	
19) 2	
20) 4	

Company Name: Ford Motor Company

1) 1	21) 1
2) 1	22) 1
3) 1	23) 1
4) 3	24) 4
5) 3	
6) 3	
7) 5	
8) 5	
9) 1	
10) 5	
11) 3	
12) 1	
13) 3	
14) 9	
15) 1	
16) 5	
17) 1	
18) 3	
19) 2	
20) 6	

Company Name: XXXXXXXX

1) 1	21) 1
2) 1	22) 0
3) 1	23) 2
4) 9	24) 5
5) 3	
6) 3	
7) 5	
8) 4	
9) 2	
10) 4	
11) 4	
12) 1	
13) 3	
14) 3	
15) 1	
16) 5	
17) 1	
18) 3	
19) 1	
20) 9	

Company Name: Canadian Pacific

1) 1	21) 1
2) 1	22) 0
3) 2	23) 2
4) 9	24) 5
5) 1	
6) 3	
7) 5	
8) 5	
9) 1	
10) 5	
11) 3	
12) 1	
13) 3	
14) 3	
15) 1	
16) 5	
17) 2	
18) 2	
19) 1	
20) 3	

Company Name: Pillsbury Canada

- | | |
|-------|-------|
| 1) 1 | 21) 2 |
| 2) 1 | 22) 1 |
| 3) 3 | 23) 9 |
| 4) 9 | 24) 9 |
| 5) 3 | |
| 6) 3 | |
| 7) 5 | |
| 8) 4 | |
| 9) 1 | |
| 10) 4 | |
| 11) 3 | |
| 12) 1 | |
| 13) 2 | |
| 14) 3 | |
| 15) 1 | |
| 16) 3 | |
| 17) 1 | |
| 18) 2 | |
| 19) 9 | |
| 20) 3 | |

Company Name: British Columbia Telephone

1) 1	21) 1
2) 1	22) 0
3) 1	23) 2
4) 9	24) 5
5) 1	
6) 3	
7) 5	
8) 3	
9) 1	
10) 3	
11) 3	
12) 1	
13) 3	
14) 2	
15) 1	
16) 3	
17) 2	
18) 2	
19) 1	
20) 3	

Appendix VI - Summary of Qualitative Results per firms
"Best Practices"

CategoryBest Practices

Type of reward

Monetary
Non-monetary

- Yes
- Recognition by Company President

Size of reward

- 0-15% of base salary

Eligibility
(Management and non-management)

- All employees

Performance Metrics

- Both (cust./employee surveys)

Focus

- Customer satis.

Closeness to TQM

- High

Teams

- Process & self-directed teams

Top-management support

- Yes

Training

- Yes (customized to meet specific needs)

Unionized

- Yes (some plants have accepted plan, some haven't)

CategoryBest Practices

Type of reward

Monetary

Non-monetary

- Yes
- Daily recognition

Size of reward

- \$40.00/year

Eligibility

(Management and non-management)

- All employees

Performance Metrics

- Both (cost reduction, decreased cycle time)

Focus

- Customer/benchmarking

Closeness to TQM

- Very high

Teams

- Work teams

Top-management support

- Yes

Training

- Training for: teams/problem solving techniques/Delivering - Sponsoring Quality

Unionized

- Yes *

* This plan doesn't cover unionized employees

Category

Best Practices

Type of reward

Monetary
Non-monetary

- Profit sharing
- Recognition (Customer Quality Awards)

Size of reward

- \$1350.00

Eligibility
(Management and non-management)

- All employees

Performance Metrics

- Both

Focus

- Deming principles

Closeness to TQM

- Very high

Teams

- Work teams

Top-management support

- Yes

Training

- Yes (technical robotics, statistics, computers)

Unionized

- Yes *

* Union condones continuous improvement/ Quality Agreement between Union & Management

CategoryBest Practices

Type of reward

Monetary
Non-monetary

- Yes
- Recognition

Size of reward

- \$100 (5-20% base salary)

Eligibility

(Management and non-management)

- Non-management (above plan)

Performance Metrics

- Both (customer satis.)

Focus

- Meet/exceed customer expectations

Closeness to TQM

- High

Teams

- Work units

Top-management support

- Yes

Training

- Yes

Unionized

- Yes (Quality Councils - union and management)

<u>Category</u>	<u>Best Practices</u>
Type of reward	
Monetary	● Yes
Non-monetary	● Employee suggestion plan
Size of reward	● \$1000/year/employee
Eligibility (Management and non-management)	● All employees
Performance Metrics	● Both (quality, efficiency, cost)
Focus	● Malcolm Baldrige criteria
Closeness to TQM	● Very high
Teams	● Process teams
Top-management support	● Yes
Training	● Quality education
Unionized	● Yes *

* Embraced the idea of job security, they constantly put forth ideas on how to improve quality

Cadillac Car Division

CategoryBest Practices

Type of reward

Monetary
Non-monetary

- Yes
- Recognition

Size of reward

- Btwn. \$500-1000

Eligibility
(Management and non-management)

- All employees

Performance Metrics

- Both (customer surveys, decreased absenteeism)

Focus

- Deming principles

Closeness to TQM

- High

Teams

- Semi-autonomous

Top-management support

- Yes

Training

- Yes (80 hours)

Unionized

- Yes (haven't accepted the plan)

CategoryBest Practices

Type of reward

Monetary
Non-monetary

- Yes
- Bravo Zulo Award
Golden Falcon Award

Size of reward

- \$1000/year/employee

Eligibility
(Management and non-management)

- All employees

Performance Metrics

- Both (employee/customer surveys)

Focus

- Customer satisfaction/zero defects

Closeness to TQM

- Very high

Teams

- Quality Action teams

Top-management support

- Yes

Training

- Quality Advantage & Quality Action training
- 650 full-time trainers

Unionized

- Yes *

* Accepted plan but, took a long time to get them on board

Category

Best Practices

Type of reward

Monetary
Non-monetary

- Yes
- Recognition

Size of reward

- Percentage of base salary

Eligibility
(Management and non-management)

- All employees

Performance Metrics
measurement)

- Both (quality

Focus

- Customer satis.

Closeness to TQM

- Very high

Teams

- Work teams/cross-functional

Top-management support

- Yes

Training

- Yes (45,000 student days of training for all employees)

Unionized

- No

CategoryBest Practices

Type of reward

Monetary
Non-monetary

- Star Performance Plan
- Recognition

Size of reward

- 2% of annual base salary

Eligibility
(Management and non-management)

- All employees

Performance Metrics

- Both (cust. surveys & quality assessment)

Focus

- Customer service

Closeness to TQM

- Very high

Teams

- Project teams

Top-management support

- Yes

Training

- Yes (customer service & employee relations)

Unionized

- No

CategoryBest Practices

Type of reward

Monetary
Non-monetary

- Yes
- President's Award

Size of reward

- Percentage of base salary

Eligibility
(Management and non-management)

- All employees

Performance Metrics

- Both "Six Bold Goals"

Focus

- Customer satisfaction

Closeness to TQM

- Very high

Teams

- Yes (several types)

Top-management support

- Yes

Training

- Yes

Unionized

- Yes *

* Negotiated in contract

CategoryBest Practices

Type of reward

Monetary
Non-monetary

- Yes
- Chairman's Award

Size of reward

- Percentage of base salary

Eligibility
(Management and non-management)

- All employees

Performance Metrics

- Both (customer satisfaction)

Focus

- Malcolm Baldrige Award

Closeness to TQM

- Very high

Teams

- Self-directed team

Top-management support

- Yes

Training

- Yes (40 hours/year)

Unionized

- Yes (not involved)

<u>Category</u>	<u>Best Practices</u>
Type of reward	
Monetary	● Yes (execs. only)
Non-monetary	● Recognition (President's Award)
Size of reward	● Based on annual salary (execs.)
Eligibility	● Monetary (execs.) ● Recognition (non-management)
Performance Metrics	● Both (emphasis on cust. satis.)
Focus	● Internal & external cust. satisfaction)
Closeness to TQM	● High
Teams	● Quality teams
Top-management support	● Yes, sometimes mixed
Training	● Process improvement training
Unionized	● Yes (not involved) *

* threatened by the program - feel it will lead to job cuts

Category

Best Practices

Type of reward

Monetary
Non-monetary

- N/A
- Customer Champion Awards

Size of reward

- N/A

Eligibility
(Management and non-management)

- All employees

Performance Metrics

- Both

Focus

- Customer satisfaction

Closeness to TQM

- Very high

Teams

- Work teams

Top-management support

- Yes

Training

- Yes (SPC & team building)

Unionized

- Yes (involved partners from the beginning)

CategoryBest Practices

Type of reward

Monetary
Non-monetary

- Yes
- Recognition

Size of reward

- Percentage of base salary

Eligibility
(Management and non-management)

- All employees

Performance Metrics

- Both (customer/employee satisfaction)

Focus

- Principles of Deming

Closeness to TQM

- Very high

Teams

- Process teams

Top-management support

- Yes

Training

- Quality training

Unionized

- Yes *

* Successful with union because unionized employees were asked about their jobs and how to make it better. Union members are more vocal about problems -provide invaluable feedback. Need to involve them in all issues.

CategoryBest Practices

Type of reward

Monetary
Non-monetary

- Bonus plan
- Recognition

Size of reward

- \$100/year/employee

Eligibility
(Management and non-management)

- All employees

Performance Metrics

- Both (emphasis on customer satis.)

Focus

- Quality performance

Closeness to TQM

- Very high

Teams

- Group/service teams

Top-management support

- Yes

Training

- Quality training

Unionized

- Yes (Manuf. & distributorship dept.)

CategoryBest Practices

Type of reward

Monetary
Non-monetary

- Yes
- N/A

Size of reward

- \$100 - \$500

Eligibility
(Management and non-management)

- All employees

Performance Metrics

- Both

Focus

- Customer satisfaction

Closeness to TQM

- Very high

Teams

- Self-directed teams

Top-management support

- Yes

Training

- Cross-technical

Unionized

- No

CategoryBest Practices

Type of reward

Monetary
Non-monetary

- Cash plan
- Recognition

Size of reward

- Percentage of base salary

Eligibility
(Management and non-management)

- All employees

Performance Metrics

- Customer & employee retention

Focus

- Customer satisfaction

Closeness to TQM

- Very high

Teams

- Work teams

Top-management support

- Yes

Training

- Cross-training (duration of 4 weeks to 8 months)

Unionized

- No

CategoryBest Practices

Type of reward

Monetary
Non-monetary

- Yes
- Delta Program (suggestion program)

Size of reward

Eligibility
(Management and non-management)

- All employees

Performance Metrics

- Both (customer satisfaction, revenue, profitability)

Focus

- Product/customer satisfaction

Closeness to TQM

- High

Teams

- Process teams

Top-management support

- Not completely

Training

- Team training

Unionized

- No

CategoryBest Practices

Type of reward

Monetary
Non-Monetary

- Profit sharing
- Recognition

Size of reward

- 0 - 5% of base salary

Eligibility
(Management and non-management)

- All employees

Performance Metrics

- Both

Focus

- Quality initiatives

Closeness to TQM

- High

Teams

- Self-directed teams

Top-management support

- Yes

Training

- Yes

Unionized

- Yes (involved in all aspects of planning)

CategoryBest Practices

Type of reward

Monetary
Non-monetary

- No
- Team competition (gold medal for winners
Top execs. present awards

Size of reward

N/A

Eligibility
(Management and non-management)

- All employees

Performance Metrics

- Operational

Focus

- "Six Sigma"
(Decrease defects, increase cycle time)

Closeness to TQM

- Very high

Teams

- Work teams (cross-functional, cross-divisional)

Top-management support

- Yes

Training

- Yes (team training)

Unionized

- No

Category

Best Practices

Type of reward

Monetary
Non-monetary

- Suggestion Plan
- Recognition

Size of reward

- \$150.00/year/employee
- Accumulation of points transformed into savings bonds

Eligibility
(Management and non-management)

- All employees

Performance Metrics

- Both

Focus

- Quality initiatives

Closeness to TQM

- Very high

Teams

- Work teams

Top-management support

- Yes

Training

- Team training

Unionized

- Yes. Emphasis on union input to improve firm performance

E.D. Smith

<u>Category</u>	<u>Best Practices</u>
Type of reward	
Non-monetary	● Employees formally recognized
Monetary	● Yes
Size of reward	● \$300.00/year (Set by goal)
Eligibility (Management and non-management)	<ul style="list-style-type: none"> ● All employees ● Teams and individuals
Performance Metrics	<ul style="list-style-type: none"> ● Both (Safety, sanitation, budget met - payout)
Focus	● Philip Crosby (Process Improvement)
Closeness to TQM	● High
Teams	● Ad hoc (work on a specific project)
Top-management support	● Yes
Training	● On special equipment (computers & basics)
Unionized	● No

<u>Category</u>	<u>Best Practices</u>
Type of reward	
Non-monetary	● Recognition
Monetary	● Yes
Size of reward	● \$300.00/year/employee
Eligibility (Management and non-management)	● All employees
Performance Metrics	● Attendance, safety, etc...
Focus	● Employee participation program
Closeness to TQM	● High
Teams	● Work teams
Top-management support	● Yes, but varies
Training	● All quality related topics
Unionized	● No

<u>Category</u>	<u>Best Practices</u>
Type of reward	
Monetary	● Profit sharing
Non-monetary	● Management "car wash"
Size of reward	● Average of \$100.00
Eligibility (Management and non-management)	● All employees
Performance Metrics	● Both (operational & financial) ● The "Star Concept"
Focus	
Closeness to TQM	● High
Teams	● Work teams
Top-management support	● Yes
Training	● Inter-team training
Unionized	● No