

## The Influence of Intrinsic and Extrinsic Rewards on Employee Results: An Empirical Analysis in Turkish Manufacturing Industry

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**Abstract:** *The study discussed in this article questions whether certain reward practices used by organizations are better than others when comparing the employee results based on TQM. We first examine reward systems and TQM relevant literature. After related literature review, reward practices have been handled in two groups as intrinsic rewards and extrinsic rewards. In the sample, which consists of 217 businesses that operate in Turkish manufacturing industry and apply TQM, intrinsic and extrinsic reward practices of firms on people results have been analyzed. The results of this survey are analyzed through descriptive analysis, ANOVA and MANOVA analyses. As the main finding of the research, it has been determined that application level of intrinsic and extrinsic rewards in Turkish manufacturing industry is not high. It has been identified that intrinsic rewards have a significant influence on employee results; however extrinsic rewards do not have a significant influence on employee results in Turkish manufacturing industry. This study highlighted the importance of the intrinsic reward system for implementing TQM.*

**Keywords:** Reward systems, intrinsic rewards, extrinsic rewards, TQM, EFQM.

**JEL Classification:** M12, M50

### 1. Introduction

During the past few decades, total quality management (TQM) and human resource management (HRM) have been important topics in management and business research due to their potential to impact a range of organizational and individual performance (Ooi, Teh and Chong 2009: 477).

TQM has a high HR context and the quality movement recognizes the importance of HR and states a conceptual and well-defined image concerning human behavior and motivation (Vouzas 2004: 126). For employees to be quality-driven, as TQM requires, there should be consistency between reward system and quality. Meaningful reward and recognition is one of the fundamentals for the practice of TQM, which will in turn influence customers' satisfaction. This suggests that reward could be essential for the implementation of TQM (Ehigie and Akpan 2004: 27). Rewards systems have a critical role in determining the organization's ability to attract high potential employees, to retain high performing employees to achieve greater levels of quality and performance (Fay and Thompson 2001: 213).

For TQM to create lasting improvements in efficiency, it is desirable to establish a system of rewards that complements the new allocation of decision rights and the new

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performance measurement system. There is a heated debate among experts over what reward system is most appropriate for TQM in organizations. Many quality experts advocate completely severing ties between rewards -particularly monetary rewards- and performance (Wruck and Jensen 1998: 414). We disagree. In fact, we believe that the increased decentralization associated with TQM should be associated with strengthening the relation between intrinsic rewards and organizational performance.

Below, we discuss rewards commonly used by TQM firms. We begin with intrinsic rewards because we agree with quality leaders about their importance and because their use in TQM programs is widespread. We then tackle the more contentious subject of extrinsic reward systems.

Prior literature has remained mostly at the conceptual level in discussing this link between rewards and people outcomes. Authors agree that this should and must exist, but researchers disagree on which rewards best achieve people results goals (Allen and Helms 2001: 74). It seems logical that some rewards are more effective than others, but propositions regarding rewards have remained largely untested and there is a recognized need for more scientific research in this area.

Yet, the literature on reward program evaluation tends to focus on a limited number of programs of specific type. For example, almost all research examining the financial impact of pay systems on organizations focuses on base and/or incentive pay, while ignoring other important elements of remuneration such as recognition rewards. Additionally, almost no studies look at the joint impact of multiple rewards approaches or at the interaction between different elements of the mix of rewards. Finally, almost all research focuses on only one or two possible outcomes of a rewards system (e.g., financial impact, employee attitudes) (Fay and Thompson 2001: 213).

This study is intended for analyzing the effect of intrinsic and extrinsic rewards applied under TQM in Turkish manufacturing industry, on people results. The paper is organized as follows. Next section reviews the intrinsic and extrinsic rewards and TQM, and suggests the theoretical framework. Then, review of the previous work is done. After, it discloses the research methodology section and presents the results of testing the hypotheses and discussion section. Finally, the paper ends with managerial implications and conclusions.

## **2. Intrinsic and Extrinsic Rewards and TQM**

Rewards were defined to include all types of benefits, from cash payments to working conditions (Eric 1994: 46). Organizations offer intrinsic and extrinsic rewards to members for the purpose of improving human resources outcomes (Mahaney and Lederer 2006). The reward system should be aligned to motivate employee performance that is consistent with the firm's strategy, attract and retain people with the knowledge, skills and abilities required to realize the firm's strategic goal, and create a supportive culture and structure (Allen and Killman 2001a: 114). Furthermore, the literature argues that alignment of the reward system with organizational strategy helps to determine organizational effectiveness.

Reward systems are strategically designed when rewards are linked to activities, attributes and work outcomes that support the organization's strategic direction and that foster the achievement of strategic goals. Such linkages can lead to increased employee knowledge or skill development, flexibility, commitment, retention and productivity (Howard and Dougherty 2004: 41). Reward systems are likely to have a direct effect on the direction of employees' individual attention and effort (Bamberger and Levi 2009: 303).

Numerous rewards systems operate within organizations. The Baldrige Award winners reveals a variety of formal and informal, monetary and non-monetary rewards for individuals and teams who contribute to the quality effort (Blackburn and Rosen 1993: 56). The structure and allocation of rewards may affect the motivation of individual team members, and the inclusion of rewards is central to many models of work group effectiveness (Kerrin and Oliver 2002: 322). It is seen in the literature that reward practices of businesses are mostly analyzed under the classification of intrinsic and extrinsic rewards (Mottaz 1985, Mahaney and Lederer 2006).

Intrinsic rewards are those that exist in the job itself. Examples are achievement, variety, challenge, autonomy, responsibility, and personal and professional growth. They also include status, recognition, praise from superiors and co-workers, personal satisfaction, and feelings of self-esteem (Mahaney and Lederer 2006: 43). Intrinsic rewards increase feelings of self-esteem and accomplishment (Honig-Haftel and Martin 1993: 261). Intrinsic rewards are derived from the content of the task itself and include such factors as interesting and challenging work, self-direction and responsibility, variety, creativity, opportunities to use one's skills and abilities, and sufficient feedback regarding the effectiveness of one's efforts (Mottaz 1985: 366). Employees are thought to be motivated to work hard to produce quality results when they have pride in their work, they believe their efforts are important to the success of the team, and their jobs are fun, challenging, and rewarding (Mahaney and Lederer 2006: 50).

Extrinsic rewards, on the other hand, are external to the job itself. They comprise such elements as pay, fringe benefits, job security, promotions, private office space, and the social climate. Other examples include competitive salaries, pay raises, merit bonuses, and such indirect forms of payment as compensatory time off (Mottaz 1985: 366, Mahaney and Lederer 2006: 43). Firms are able to improve worker productivity by paying workers a wage premium- a wage that is above the wage paid by other firms for comparable labor. A wage premium may enhance productivity by improving nutrition, boosting morale, encouraging greater commitment to firm goals, reducing quits and the disruption caused by turnover, attracting higher quality workers and inspiring workers to put forth greater effort (Goldsmith, Veum and Darity 2000: 352). As a result, people are attracted to well-paying jobs, extend extra effort to perform the activities that bring them more pay, and become agitated if their pay is threatened or decreased (Stajkovic and Luthans 2001: 581). Extrinsic rewards are used to show that the company is serious about valuing team contributions to quality. The monetary rewards consist of a cash bonus allocated to each team member. The team bonus would be given separately from the salary. On the other hand, team rewards must be used in ways that avoid destroying employees' intrinsic motivation to do their job. The need for continuous improvement requires employees to be innovators; devising novel solutions that improve a work process or that delight the customer. The use of extrinsic rewards that are tightly linked to team performance may teach team members to become money hungry and undermine their intrinsic interest in the work itself (Balkin and Dolan 1997: 43).

Monetary rewards, which are the most used extrinsic rewards, are shunned by a number of quality leaders, including Ishikawa, Crosby, Juran and Deming, and by many organizations that adopt their recommendations. Deming argues that monetary incentive systems are counterproductive because performance cannot be measured accurately and is influenced by factors beyond employees' control. In addition, he argues that monetary incentives destroy teamwork. His argument lumps together all forms of monetary pay-for-

performance systems, from individual piece-rates to group rewards to profit-sharing and equity ownership plans, treating them as if they were identical approaches to compensation. The case against monetary rewards made by quality leaders uses two basic lines of argument. First, it states assets that money is a poor motivator. Second, it maintains that numerical measures of performance are flawed and therefore must not be tied to rewards (Wruck and Jensen 1998: 417).

Most firms implementing TQM have traditionally relied heavily on intrinsic rewards. For example, it is common for them to reward employees for their quality efforts with certificates, letters of appreciation, or merchandise, often in conjunction with celebrations like luncheons or special quality-related events. It is also typical for them to have some sort of system for employees to make quality improvement suggestions (Allen and Kilmann 2001b: 80). Some firms have changed their performance appraisal systems to focus on developing employees to get better in the future. Quality accomplishments are even considered in the promotion decision. Rewards that involve things other than money or pay-related issues often invoke feelings of accomplishment of self-worth from employees who have done a quality job (Allen and Kilmann 2001b: 80).

Firms are most likely to initiate team based programs when they are trying to attain some corporate objectives, such as quality enhancement (Magjuka and Baldwin 1991: 793). Intrinsic rewards are used to provide recognition to a team for making a quality contribution. Team members may be awarded a plaque at an awards dinner to celebrate their success. Tokens of appreciation such as jackets, hats, or shirts with the team's name on it may be given in recognition for meeting a quality goal. These intrinsic rewards help reinforce team identity and esprit de corps. In addition, intrinsic rewards can be very reinforcing to team members because these rewards can be consumed immediately, unlike extrinsic rewards that are likely to be used to pay off debts or be put in the bank for future use (Balkin and Dolan 1997: 44).

In general, there seems to be agreement that rewards are important for individual outcomes. But there is not an agreement on which specific types of reward practices are more effective. We define rewards broadly to encompass all types of rewards, both extrinsic and intrinsic, including the satisfaction generated by participation in TQM activities, the benefit of making one's job easier or safer, recognition, raises, promotions, bonuses, profit-sharing plans, and equity-ownership programs. All these rewards are valued by employees and so provide motivation or incentives.

### **3. Review of the Previous Work and Hypotheses**

While it is accepted that intrinsic and extrinsic reward systems are effective on various performance indicators of TQM applications, a study does not exist that directly examines the effect of these reward types on performance indicators of people results and which reward practices are more effective. Because of this reason, partially similar studies have been analysed.

Of these studies, Fay and Thompson's (2001) study is the most comprehensive one. They developed five categories of rewards. These include base pay structure or administration, annual incentives, benefits programs, perquisite and lifestyle facilitators, and long-term incentives. They have done a study that includes 231 organizations operating in various sectors in the United States and Canada. Respondents were asked to rank seven

indicators of program success in order by level of importance and to note the extent to which each of the rewards categories met each success criterion. The criteria used as indicators of program success included financial results, increased productivity, improved recruiting speed and/or quality, reduced turnover, improved legal/regulatory compliance, improved employee satisfaction, increased alignment of the rewards program with work culture and business strategy. Analysis suggests that a common set of criteria can be used to judge the success of different kind of programs.

An important study that analyses the effect of intrinsic and extrinsic reward practices on business performance (revenue growth rate, net profit, quality of goods or services) is Allen and Kilmann's (2001a) study. They examine the impact of reward practices on the relationship between an organizational strategy based on the principles of total quality management and perceptions of performance. Among the major findings was that the use of extrinsic reward practices (profit sharing, gain sharing, employment security) exhibited a significantly positive moderating effect on the relationship between TQM and perceived performance; while intrinsic reward practices did not reveal a significant moderating relationship.

It has been well demonstrated that different types (intrinsic/extrinsic) and targets (individual/group) of rewards encompass different outcome utility, informative content and mechanisms for regulating behaviors. In a meta-analysis, it is demonstrated that different types of rewards have different effects on employee behavior and performance. For example, the administration of financial incentives and recognition improved performance by 14 percent and 15 percent respectively (Yap, Bove and Beverland 2009: 279).

While all of the studies cited above find that rewards systems can have a positive impact on employee criteria of success; rewards researchers are still left uncertain about the joint impact of multiple rewards programs on multiple success criteria.

The main objective of this paper is to explore the effects of intrinsic and extrinsic reward programs on people results based on EFQM criteria. After a review of the existing literature, we concluded that while some people have pointed out the importance of using reward practices that support TQM, and others have provided anecdotal examples, no one has yet conducted a careful, scientific examination of the topic.

The type of reward practices used by organization plays an important role in motivating employees to perform. It is commonly believed that if rewards are used effectively, they can motivate individuals to perform at higher levels (Allen and Helms 2001: 74). Because as mentioned before, organizations use many different types of rewards, it is likely that some reward practices are more effective than others in influencing performance. However in the previous studies, whether intrinsic and extrinsic reward practices differ according to the market the businesses operate in, their operation period, sizes and TQM experience years have not been examined. Together with this, previous studies that might be indirectly related, for instance Terziovski and Samson (1999:230), claimed that business size might be supportive regarding the TQM practices to be successful, and obtained findings in the empirical study they did that supports this claim. In the study he did, Powell (1995) put forth that firms adopt TQM practices more as the business size increases, and correlation between firm size and TQM is supportive in the success of TQM practices. Fisher (1993: 181) stated that adaptation level of TQM approach differed in a remarkable way, according to firm size. According to Honig-Haftel and Martin (1993: 262), originators of technology in large

firms are likely to be different from the small firm entrepreneur. Technical personnel within large firms seem more likely motivated by nonmonetary rewards that affect intrinsic values than by monetary rewards. Entrepreneurs in smaller, newly-emerging firms are more likely to be motivated by extrinsic rewards that encourage a stake in the venture. This knowledge may sign to the fact that intrinsic and extrinsic reward practices in firms applying TQM may differ according to firm size. On the other hand, although a research regarding whether intrinsic and extrinsic reward practices of firms that apply TQM differ according to the market (national/international) that they operate in is not came across; whether intrinsic and extrinsic reward practices of firms differ according to the market they operate in and the operation period of the firm have been included to this study as a variable, which has not been analyzed before.

In his study, which he compared the firms that have more than 4 years of TQM experience and firms that have TQM experiences less than 4 years, Powell (1995: 126) proved that there is a significant relationship between TQM experience year and the performance of TQM practices. Fisher (1993: 190) presented that in large businesses that have TQM experience more than 3 years, the influence of TQM practices on business performance is more than small businesses. According to Fisher, the reason of this is related to the fact that top executives of large businesses with more TQM experience have more matured TQM philosophies. In the light of these findings, it might be thought that intrinsic and extrinsic reward practices in firms applying TQM might differ according to TQM experience year as well as firm size. In the light of the literature findings above, the hypotheses examined in this study include:

H1: There is a significant difference between businesses' intrinsic reward practices, according to the market businesses operate, operation period, their size and TQM experience year.

H1a: There is a significant difference between businesses' intrinsic reward practices according to the market they operate in.

H1b: There is a significant difference between businesses' intrinsic reward practices according to their operation period.

H1c: There is a significant difference between businesses' intrinsic reward practices according to their size.

H1d: There is a significant difference between businesses' intrinsic reward practices according to their TQM experience year.

H2: There is a significant difference between businesses' extrinsic reward practices according to the market they operate in, their operation period, size and TQM experience year.

H2a: There is a significant difference between businesses' extrinsic reward practices according to the market they operate in.

H2b: There is a significant difference between businesses' extrinsic reward practices according to their operation period.

H2c: There is a significant difference between businesses' extrinsic reward practices according to their size.

H2d: There is a significant difference between businesses' extrinsic reward practices according to the TQM experience year.

H3: There is a significant difference between intrinsic rewards and extrinsic rewards in terms of their effect on people results.

## **4. Methods**

### **4.1. Variables of the Research**

Within the scope of the research, there are three groups of variables. By taking into consideration intrinsic and extrinsic rewards as independent variables, people results as dependent variables, and the market the business operates in (national/international), operation period, size and TQM experience year as control variables.

Allen and Kilmann's (2001a) classification has been predicated on regarding reward practices, which are the independent variables of the research. As a result of the literature review and empirical study they did, Allen and Kilmann gathered reward practices that are probable to have influence on the success of TQM, in two groups as intrinsic and extrinsic rewards (Allen and Kilmann 2001a: 116). It is possible to explain the variables taking place in these two groups as given below.

#### **4.1.1. Independent Variables: Intrinsic and Extrinsic Rewards**

Intrinsic rewards stated below typically involve the feelings of accomplishment or self-worth an employee derives from doing a good job:

- *Non-monetary forms of recognition* to acknowledge achievement of quality improvement goals such as plaques, merchandise, certificates, letters, complimentary tickets, etc. (Allen and Kilmann 2001a: 116). Recognition for contribution to the firm's quality goals is strongly advocated by quality leaders and is widely adopted by TQM companies. For example, Juran identifies recognition, along with other rewards, as an essential element of motivation for quality and Crosby advocates recognition as a necessary component of TQM (Wruck and Jensen 1998: 415). Team incentives often include this type of component, which has the purpose to recognize outstanding performance typically, at the individual level.

- *Celebrations* to acknowledge achievement of quality improvement goals such as lunches, dinners, special events, etc. Award ceremonies held to recognize outstanding quality efforts by individuals and teams are common in TQM firms (Allen and Kilmann 2001a: 117). At such ceremonies, the employees being honored generally receive not only recognition, but a small gift, such as a ring, windbreaker, or plaque. Giving public visibility to quality efforts that identify and remedy problems sends a strong message that such efforts are a valued part of employees' contribution to the firm.

- *Regular expressions of appreciation* such as praise, "pat on the back" by managers/leaders to employees to acknowledge achievement of quality improvement goals (Allen and Kilmann 2001a: 117).

- *360 degrees performance appraisals* wherein feedback from co-workers (other than just the immediate supervisor) and/or customer is incorporated into performance appraisals. Teams obtain input on individual and team performance from broader sources than is typically the case in traditional structures. Sources of input include customers or clients, managers, and peers, and, where individual performance is concerned, self-appraisal (Kanin-Lovers and Cameron 1993: 58). Considerable amounts of research suggest that the leaders' performance feedback of their subordinates' competence motivates followers and them toward appropriate goal directed activity (Chinen 2002: 92).

- *Having a suggestion system* available for individuals to make quality improvement suggestions, such as a suggestion box (Allen and Kilmann 2001a: 117).

- *Use of development-based performance appraisals* wherein performance appraisals are used primarily for developing employees to perform better in the future rather than for evaluating their past accomplishments and failures (Allen and Kilmann 2001a: 117).

- *Quality-based promotions* wherein promotions are based primarily on the achievement of quality-based goals as opposed to quantity-based goals (Allen and Kilmann 2001a: 117).

Extrinsic rewards presented below are typically directly related to pay or compensation issues:

- *Profit sharing* wherein the organization shares some portion of profits with employees. Profit sharing plans (which reward all employees on the basis of reported profits for the entire firm) may be expected to contribute to employee retention to the extent that employee views the financial reward as an additional benefit provided by the firm (Gomez-Mejia and Balkin 1989: 433).

- *Gain sharing* wherein portions of individual work unit gains in productivity, quality, cost effectiveness, or other performance improvements are shared with employees in the form of bonuses based on a predetermined formula (Allen and Kilmann 2001a: 117). These programs, as applied in manufacturing, have typically been based on achievement over and above a historic financial or operational benchmark. In a team-based structure, defining a historic benchmark may be somewhat more difficult, because teams are often established in conjunction with downsizing, reorganization, and work reengineering. The team's results in relation to a historic benchmark may not be relevant, potential gains may be established on a going forward basis and frequently measure profitability, with a circuit breaker for service, quality, and other factors. These incentives are based on the accomplishment of financial and/or operational goals defined at the team level. Financial goals applied in the service/staff job sector often apply to cost control, profitability, or revenues, while operational goals usually relate to service, quality, and efficiency/accuracy. Those goals are often more difficult to measure in some of the functions that are currently being reengineered into team structures than in the plant-level, production functions. Sharing the benefits of any positive margin between actual and expected costs during a given period between a firm and its workers. There are several varieties of gain sharing, but each involves reward for gains in productivity and/or reductions in costs, irrespective of the organization's year-end bottom line (Band, Scanlan and Tustin 1994: 17).

- *Employment security* such as having a corporate policy or union contract designed to prevent layoffs. TQM programs need to be backed by employment security practices. Employees must not fear losing their jobs as a result of making their work processes more efficient. Job security practices can take the form of a “no-layoffs as a result of TQM improvements” corporate policy or a stipulation in union contracts (Allen and Kilmann 2001b: 82).

- *Overtime pay* wherein workers are given additional pay for overtime hours worked.

- *Individual based performance system* wherein performance appraisals and pay increases are based primarily on individual achievements. Pay for performance has been defined as paying individuals predetermined amounts of money for each unit produced (Stajkovic and Luthans 2001: 581).

- *Quantity-based performance appraisals* wherein performance appraisals are based primarily on achieving quantity related goals (Allen and Kilmann 2001a: 118).

#### **4.1.2. Dependent Variables: People Results Based on EFQM**

Measuring for people results has been adapted from European Quality Award’s people results. (Indicators about employees that are widely used in Turkey and take place within The European Quality Award, have been adapted) (EFQM, 1996).

In 1988, the European Foundation for Quality Management (EFQM) was founded by 14 major European companies, with the endorsement of the European Commission. This was followed in 1992 by the first EFQM, European Quality Award. These rewards are presented to companies that demonstrate excellence in the management of quality as their fundamental process for continuous improvement. The specific purpose of the EFQM Excellence Model is to provide a systems perspective for understanding performance management (Wongrassamee, Gardiner and Simmons 2003: 15-16).

The EFQM model is a non-prescriptive framework, which recognizes that excellence may be achieved in a sustainable manner through the adoption of different approaches. Within this framework, there are certain fundamental concepts that are expressed and specified in nine dimensions criteria, which serve as a guide for implementing total quality management and for measuring the results that are being achieved by the organization. These nine dimensions are, in turn, divided into five key implementation factors or enablers and four result types in order to measure excellence. These results are people results, consumer results, society results and key performance results. In this study, people results have been taken into consideration as the dependent variable (Calvo-Mora, Leal and Roldan 2005: 742).

People results include two types of measurement, as “perception measures” and “internal performance indicators”. In this study, internal performance indicators have been taken into consideration as dependent variable. Indicators describing internal performance can be used by an organization to monitor, analyze, interpret, forecast and improve internal performance, develop processes and anticipate staff perceptions. Performance can be measured through factors such as achievement of educational and other development objectives, staff involvement, staff turnover and services provided for staff. People results may describe aspects such as demographic factors (age, gender), staff education and

competence (level of education, work experience, skills, salary level), staff turnover, working hours (overtime, shift work), type of employment (permanent, temporary, part-time), health issues (sick leaves, accidents, working capacity, pensions) and involvement and working climate of organization (job satisfaction, teamwork) ([www.edu.fi/english/page.asp?path, 8.12.2009](http://www.edu.fi/english/page.asp?path,8.12.2009)).

This criterion that aims to measure the productivity of the employees with a realistic approach includes the following indicators (Şimşek and Nursoy 2002: 77-79):

- Increase in gross value added according to total number of employees
- Decrease in absenteeism periods
- Decrease in employee turnover rate
- Work hours lost in industrial accidents
- Decrease in industrial accident cost
- Benefiting from the work period effectively
- Number of employees submitting recommendation
- Efficiency of the training
- Increase in production amount according to total employee number
- Its influence on satisfaction level of employees
- Its influence on employee participation
- Its influence on improvement process

Indicators above about people results consisting 12 items, which was adopted from Şimşek and Nursoy (2002: 77-79), compose the dependent variables of the research.

#### **4.2. Research Instrument**

We undertook a survey with a broad range of companies with the goals of determining (1) which reward practices are most appropriate for them to use in support of TQM programs and (2) the influence of rewards applied in the context of TQM, on results related to human resources. Effect of intrinsic and extrinsic reward practices on people results have been measured depending on the perceptions of human resources managers. The instrument was administered to a sample of 217 Human Resource Managers. A structured questionnaire, consisting of three sections, was used to collect data.

The first section consisted of items that measured information related to businesses. In this context, questions about the market it operates in (national/international), for how many years it is in operation, its magnitude and TQM experience year, take place.

The second section consists of 13 items, measuring reward practices adapted by Allen and Kilmann's (2001a). These items express the independent variables of the research. 7 of these represent intrinsic and 6 of them represent extrinsic rewards. Respondents were asked to estimate the percentage of employees in their firms who were eligible for the various rewards. Each item could range from 1 (no employees covered by that type of reward) to 5 (all employees covered). In the literature review, as more comprehensive studies than Allen

and Killman's (2001a) classification, and intrinsic and extrinsic reward items they claimed were not came across; it might be said that the item used is valid.

The third section consists of 12 items, measuring people results adapted by Şimşek and Nursoy (2002). These items express the dependent variables of the research. Human Resources managers were asked to state the effect of intrinsic and extrinsic reward practices in their firms by using 5 point Likert scale. Answers were ordered from 1=not at all effective to 5=Very effective.

Measuring for people results has been adapted from European Quality Award's people results. Indicators about employees that are widely used in Turkey (EFQM, 1996). Şimşek and Nursoy (2002) defined these indicators clearly. The fact that the indicators that were used in the research and that takes place in this scale, which covers the results in question, get involved in the context of European Quality Award, and are widely used in Turkey (EFQM, 1996) show that the scale used in the research is valid.

Reliability coefficient of the scale about intrinsic rewards consisting 7 items has been measured as alpha 0.84, and reliability coefficient of the scale about extrinsic rewards consisting 6 items has been measured as alpha 0.80. It is seen that the reliability level of the scales used in the research is high.

### **4.3. Data Collection**

The current study was conducted in a single industry to control between-industry differences. The manufacturing industry was selected for several reasons. First, the operational fields of the firms differ considerably. Second, in this industry HR practices show a great level of heterogeneity. Some firms produce a wide variety of products to a diverse set of customers; others produce a limited product to a largely homogeneous set of customers. Third, the firm size varies significantly in the manufacturing industry. We selected an initial stratified random sample of 300 manufacturing firms using the following procedure. The exact number of the firms operating in the Turkish manufacturing industry is not known. Therefore, we have determined the regions of Turkey where manufacturing industry firms cluster. Then we conducted face to face interview with the HR managers of the 300 hundred firms using a questionnaire. 217 of the managers answered the questionnaire. Overall, the sample was quite diverse and representative which helps to bolster the generalizability of the findings.

### **4.4. Information about the Sample**

44,7% of the firms operate nationally, 55,3% operate internationally. 30,9% of the firms have been operating between 1-9 years, 47,9% between 10-19 years, 21,2% on the other hand have been operating for 20 years and more. Distribution of the firms according to their size has been made by being based on EU commission definition; 34,6% can be classified as small-scale business, 44,3% as medium-sized and 21,2% as large-scale. According to the EU Commission definition, businesses employing employees between 0-49 are classified as small, 50-249 as medium and 250 and more as large businesses.

53,8% of the firms participated in the research have TQM experience years between 1-3 years, 29,1% between 4-6 years, 7% between 7-9 years and 10% 10 years and more.

## 5. Findings

Data gathered from the sample have been analyzed by using SPSS 15 statistical package program. The sample size of 217 was sufficient for data analysis. The details of this analysis are as follows.

### 5.1. Practice Level of Intrinsic and Extrinsic Rewards in Turkish Manufacturing Industry

Table 1 shows the grouping with the means and standard deviations of intrinsic and extrinsic rewards items. The means of intrinsic rewards and extrinsic rewards were 2.79 and 2.70, respectively. It is seen that means of intrinsic reward practice level and extrinsic reward practice level, which constitute the independent variables of the study, are quite close to each other, although they are not very high.

**Table 1: Intrinsic and Extrinsic Rewards**

Variables	Mean	sd
<b><i>Intrinsic Rewards</i></b>		
1. Non-monetary forms of recognition to acknowledge achievement of quality improvement goals such as merchandise, certificates, letters, complimentary tickets, etc.	2.41	1.21
2. Celebrations to acknowledge achievement of quality improvement goals such as lunches, dinners, special events, etc.	2.50	1.27
3. Regular expressions of appreciation by managers/leaders to employees to acknowledge achievement of quality improvement goals.	3.14	1.26
4. 360 degrees performance appraisals wherein feedback from co-workers and/or customers is incorporated into performance appraisals.	2.59	1.29
5. Formal suggestion system available for individuals to make quality improvement suggestions.	3.02	1.43
6. Use of development-based performance appraisals.	2.87	1.29
7. Quality based promotions wherein promotions are based primarily on the achievement of quality-based goals as opposed to quantity-based goals.	3.03	1.32
<b>Mean</b>	<b>2.79</b>	<b>1.29</b>
<b><i>Extrinsic Rewards</i></b>		
8. Profit sharing wherein the organization shares some portion of profits with employees.	1.86	1.18
9. Gain sharing wherein portions of individual work unit gains in productivity, quality, cost effectiveness, or other performance improvements are shared with employees in the form of bonuses based on a predetermined formula.	2.11	1.27
10. Employment security such as having a corporate policy or union contract designed to prevent layoffs.	2.74	1.36
11. Overtime pay wherein workers are given additional pay for overtime hours worked.	3.46	1.37
12. Individual based performance system wherein performance appraisals and pay increases are based primarily on individual achievements.	2.87	1.27
13. Quantity based performance appraisals wherein performance appraisals are based primarily on achieving quantity related goals.	3.21	1.33
<b>Mean</b>	<b>2.70</b>	<b>1.29</b>

Note: Each item in the answer scale could range from 1 (no employees covered by that type of reward) to 5 (all employees covered), high levels show that rewards are practiced in a high level. N=217.

When Table 1 is reviewed, it is understood that while implementation level of intrinsic rewards within the scope of TQM in Turkish manufacturing industry is a little above average in terms of “regular expressions of appreciation by managers/leaders to employees to acknowledge achievement of quality improvement goals”, “quality based promotions wherein promotions are based primarily on the achievement of quality-based goals as opposed to quantity-based goals” and “formal suggestion system available for individuals to make quality improvement suggestions” practices respectively; other intrinsic reward

practices are at a lower level. In terms of extrinsic rewards however, it is seen that practice levels of “overtime pay wherein workers are given additional pay for overtime hours worked” and “quantity-based performance appraisals” are at a level higher than the average respectively and other extrinsic reward practices are applied at a lower level.

## 5.2. Test of Hypotheses

In order to test H1 and H2 hypotheses, one-way ANOVA analysis has been applied. This analysis is applied to test whether the difference between the mean of two or more samples without relationship is significantly different than zero or not (Büyüköztürk 2002: 44).

As a result of testing H1, which intends to put forth whether there is a significant difference between the intrinsic reward practices of the firms according to the market they operate in, operation period, size and TQM experience year; it has been determined that among intrinsic rewards practice level of the item “non-monetary forms of recognition to acknowledge achievement of quality improvement goals such as merchandise, certificates, letters, complimentary tickets, etc.” show a significant difference according to the market businesses operate in ( $F_{(1-215)} = 4.524$ ,  $p < 0.05$ ). It is understood that other rewards that take place among intrinsic rewards do not show a significant difference according to the market they operate in.

It has been identified that among intrinsic rewards, practice level of “quality based promotions wherein promotions are based primarily on the achievement of quality-based goals as opposed to quantity-based goals” in businesses do show a significant difference according to the operation period of the businesses ( $F_{(2-214)} = 3.355$ ,  $p < 0.05$ ). In order to put forward from which group this difference is caused, Scheffe test has been done. According to this, “quality based promotions” practice level mean points (Mean=3.14, Mean=3.15) of businesses operating between 1-9 and 10-19 years are higher than the mean points of businesses operating for 20 years and more (Mean=2.58). This finding shows that operation period is an important factor over some intrinsic reward practices of the businesses. It is understood that practice level of other rewards that take place within intrinsic rewards do not show a significant difference according to the operation period of the businesses.

As a result of the analyses done, it has been determined that there is not a significant difference between the intrinsic reward practices of the businesses according to their sizes.

It has been determined that from the business’s intrinsic reward practices, practice level of “non-monetary forms of recognition to acknowledge achievement of quality improvement goals such as merchandise, certificates, letters, complimentary tickets, etc.” ( $F_{(4-212)} = 2.655$ ,  $p < 0.05$ ) and “celebrations to acknowledge achievement of quality improvement goals such as lunches, dinners, special events, etc.” ( $F_{(4-212)} = 2.818$ ,  $p < 0.05$ ) show a significant difference according to the TQM experience year of the business. With the Scheffe test done, it is understood that businesses that have TQM experience period between 1 and 3 years and (Mean=2.73) and 4 and 6 years (Mean=2.50) imply these two intrinsic reward types at a higher level than businesses with TQM experience years more. It is understood that practice level of other rewards that take place within the context of intrinsic rewards does not show a significant difference according to TQM experience year.

As a result of the analyses done regarding H1 hypothesis, it can be stated that H1a, H1b and H1d sub-hypotheses are verified; H1c sub-hypothesis on the other hand has not been verified.

Sub-hypotheses of H2 hypothesis, which intends to put forward whether there is a significant difference between the extrinsic reward practices of businesses according to the market they operate in, operation period, size and TQM experience year, have been tested with one-way variance analysis (ANOVA). According to the analysis results, it has been identified that among the extrinsic reward practices of the businesses, practice level of “profit sharing” ( $F_{(1-215)} = 5.678, p < 0.01$ ), “gain sharing wherein portions of individual work unit gains in productivity, quality, cost effectiveness, or other performance” ( $F_{(1-215)} = 3.929, p < 0.05$ ), “employment security such as having a corporate policy or union contract designed to prevent layoffs” ( $F_{(1-215)} = 9.119, p < 0.01$ ) show a significant difference according to the market the business operates in. It is understood that practice level of other rewards that take place among extrinsic rewards do not show a significant difference according to the market they operate in.

It has been determined that among the extrinsic reward practices, the implication level of “employment security such as having a corporate policy or union contract designed to prevent layoffs” ( $F_{(1-214)} = 2.998, p < 0.05$ ) and “overtime pay wherein workers are given additional pay for overtime hours worked” ( $F_{(2-214)} = 2.924, p < 0.05$ ) show a significant difference according to the operation period of the businesses. As a result of the Scheffe test done, it has been seen that in the businesses that have operation periods between 10 and 19 years, “employment security” (Mean=2.93) and “overtime pay (wherein workers are given additional pay for overtime hours worked)” implementation (Mean=3.67) are at a higher level as a result of quality improvement.

It has been identified that there is not a significant difference between extrinsic reward practices of the businesses according to size and TQM experience year of the businesses.

As a result of the analyses related to H2 hypothesis, it has been seen that H2a and H2b sub-hypotheses have been verified; H2c and H2d sub-hypotheses on the other hand have not been verified.

Multivariate Analysis of Variance (MANOVA) has been done intending to test H3 hypothesis. In order to test H3 hypothesis, as the number of dependent (people results) variables taken into consideration in the research is greater than 2, multi-factor multivariate MANOVA has been applied (Özdemir, 2008, p.263).

In this context, in order to measure the validity of the model as a whole, Wilks’ Lambda test has been applied. Wilks’ Lambda value is used in situations in which three or more dependent variables are benefitted from (Şencan, 2005, p.332). The fact that Wilks’ Lambda test results came out significant ( $F=133.208, p < 0.001$ ) proved that the model is valid as a whole and the means of dependent variables (people results) are different in two different groups (intrinsic and extrinsic rewards).

After the model is proved to valid totally, there is need to search for the source of this difference, by examining the status of dependent variables separately. As a result of the Wilks’ Lambda test result of “intrinsic rewards” factor, it has been determined that while there is a significant difference ( $F=1.149, p < 0.01$ ) between the means of variables; there is

not a significant difference between the means of “extrinsic rewards” factor’s variables ( $F=1.078$ ,  $p>0.05$ ).

According to the MANOVA analysis, sources of the difference in the intrinsic rewards group are presented below.

It has been determined that the influence of the “Non-monetary forms of recognition to acknowledge achievement of quality improvement goals such as merchandise, certificates, letters, complimentary tickets, etc.” practice on “decrease in employee turnover rate” ( $F=3.782$ ,  $p<0.05$ ), “benefiting from work hours effectively” ( $F=2.836$ ,  $p<0.05$ ), “training efficiency” ( $F=3.919$ ,  $p<0.05$ ), “satisfaction level of employees” ( $F=3.919$ ,  $p<0.00$ ) and “influence over employee participation” ( $F= 2.966$ ,  $p<0.05$ ), which are items of people results, is significant.

It has been identified that the effect of “Celebrations to acknowledge achievement of quality improvement goals such as lunches, dinners, special events, etc.” practice on people results items “influence of the increase of the number of employees submitting recommendations” ( $F=2.588$ ,  $p<0.05$ ), “influence on the efficiency of training” ( $F=3.528$ ,  $p<0.01$ ) is significant.

It has been determined that the effect of “regular expressions of appreciation by managers/leaders to employees to acknowledge achievement of quality improvement goals” practice, which is one of the intrinsic rewards, on “decrease in employee turnover rate” ( $F=2.714$ ,  $p<0.05$ ), “benefiting from work hours effectively” ( $F=3.270$ ,  $p<0.01$ ), “training efficiency” ( $F=2.526$ ,  $p<0.05$ ), “satisfaction level of employees” ( $F=3.263$ ,  $p<0.05$ ) and “influence over employee participation” ( $F=4.64$ ,  $p<0.01$ ) and “influence on the improvement process” ( $F=5.732$ ,  $p<0.01$ ), which are items of people results, is significant.

It has been seen that the effect of the “360 degrees performance appraisals wherein feedback from co-workers and/or customers is incorporated into performance appraisals” practice is significant only on “increase of the number of employees submitting recommendations” ( $F=2.899$ ,  $p<0.05$ ), which is among people results items.

It has been determined that the effect of “Formal suggestion system available for individuals to make quality improvement suggestions” practice on “decrease in employee turnover rate” ( $F=3.030$ ,  $p<0.05$ ), “decrease in industry accident cost” ( $F=4.433$ ,  $p<0.01$ ), “influence on satisfaction level of employees” ( $F=2.819$ ,  $p<0.05$ ) and “influence on improvement process” ( $F=3.258$ ,  $p<0.05$ ) that are among people results items, is significant.

It has been found that the effect of “Use of development-based performance appraisals” practice on “influence on the decrease in absenteeism periods” ( $p<0.05$ ), “influence on the decrease in employee turnover rate” ( $F=2.594$ ,  $p<0.05$ ), “increase in the number of employees submitting recommendation” ( $F=2.723$ ,  $p<0.05$ ), “influence on employee satisfaction level” ( $F=3.358$ ,  $p<0.01$ ) and “influence on employee participation” ( $F=2.874$ ,  $p<0.05$ ) items is significant.

It has been determined that the last reward type that takes place in the intrinsic rewards group, quality based promotions wherein promotions are based primarily on the achievement of quality-based goals as opposed to quantity-based goals” has a significant

effect on only one item of people results, “decrease in employee turnover rate” ( $F=3.450$ ,  $p<0.01$ ).

Thus, H3 hypothesis has been accepted by putting forward that there is a significant difference between intrinsic rewards and extrinsic rewards in terms of their effect on people results.

## 6. Discussion

Reward systems specify the organizational values and they shape individuals’ behaviors and attitudes. Having the right reward and reward systems is also vital for TQM activities. Thus, any reward systems implemented by an organization must reward and motivate people to be involved in the TQM process (Ooi, Teh and Chong 2009: 477).

Front-line employees are central to the concept of customer-focused organizations as their behaviors influence customers’ perceptions of the quality of the service provided. This in turn influences the level of customer satisfaction, patronage, loyalty and retention, as well as the cost of attracting new customers; hence contributing to the organization’s overall performance (Yap, Bove and Beverland 2009: 279).

Literature has identified the key factors for successful quality management implementation. These factors have been provided by contributions from quality leaders, formal evaluation models (European Quality Award, Malcolm Baldrige National Quality Award, Deming Award) and measurement studies. The research shows some common issues, which can be considered as critical for successful continuous quality improvement effort. Out of these factors, literature has suggested that they may be classified as hard and soft factors. While the hard part includes production and work process control techniques, the soft factors are the human aspects such as leadership and people management (such as employee involvement, training and education and, reward and recognition). The effective use of soft factors in the organization can bring quality improvement (Abdullah, Uli and Tari 2008: 439-440). From soft factors, appropriate rewards reinforce the required behaviors that are consistent with TQM strategy or intended outcomes.

Rewards are the most common human resource management practice used to acknowledge and compensate for good performance. Reward systems consist of both extrinsic and intrinsic programs. Extrinsic rewards refer to the financial inducements that organizations offer employees in exchange for contributing to quality and customer service. In contrast, intrinsic rewards refers to the identification of a “job well done”; hence representing a non-financial means of appreciating and acknowledging employees contributions to quality and customer service (Yap, Bove and Beverland 2009: 279).

The finding of this research states that intrinsic reward have a direct effect on people results performance indicators. On the other hand, extrinsic rewards have not direct motivational effects on people results. Reasons of this result gathered can be explained within the framework of related literature.

Until the end of 1960s, effect of external motivators was basically handled in motivation. However, as a result of introducing that incentives given do not influence every individual in the same way, some researchers were directed to think in a different form. It has been claimed that extrinsic rewards given to the individual does not increase intrinsic

motivation. However, this should not be thought as getting wage from the reward system. Moreover, wage should be handled as a factor that should be emphasized with care. According to this, attention should be paid for the wage system to be fair; key employees can be pleased by being given a special wage because of the skills they own and the importance of the job they are doing, and housing, ticket or ease for transportation to work could be provided that might replace flexible administration, which will enable the individual to feel special (Ergeneli 2006: 201). On the other hand, money is not always a motivation tool. Especially the professionals today desire to find an internal satisfaction, rather than the job. As these individuals have a tendency to get better wages already, managers may first need to use inner motivators about the job, in order to motivate these individuals. Although it is thought that money plays an important role in the motivation of unqualified individuals with low wages, money may not always provide the expected motivation. For these individuals, practices like the employee of the month, successful employee award ceremony, sincere celebration of success can be effective (Ergeneli 2006: 203).

Praising the individual in motivation has always been given importance. The individuals to feel special in motivation have importance. It is being stated that the first step to provide this is praising. Praising on the other hand should be done by paying attention to some points. These are: praising the individual immediately in case he/she does a task worth to praise, the praise to be sincere, explaining why the individual was praised, the praise to include only positive sentences and the manager to notice the positive developments about the employees immediately (Ergeneli 2006: 200).

Thus, only one magical stick valid in every situation does not exist in order to motivate people to work more efficiently. This depends more on good observation of the situation being experienced. In this study, when the situation being experienced is reviewed from the perspective of TQM, it can be stated that the findings obtained from the sample show that intrinsic reward practices competent with the philosophy of TQM do play a key role in supporting TQM and are effective on performance outputs about employees, and that the use of the proper ones can help make TQM more effective at improving people results performance indicators.

## **7. Managerial Implications**

This finding has important practical implications for senior managers and other administrators responsible for implementing TQM in their organizations. This research indicates the importance of aligning the reward system to support TQM. The analysis of the effects of reward practices on the people results sheds further light on how management can use the reward system to ensure that TQM is even more effective. The use of appropriate intrinsic reward practices should be seriously considered to ensure that TQM business practices have an even greater positive effect on people results. More specifically, managers should implement policies and programs that link people results performance indicators to the accomplishment of strategic quality objectives at the organizational, group and individual levels.

The outcome of this study states that intrinsic rewards are instrumental in shaping people results. Hence, manufacturing firms' managers should identify performance related rewards and develop appropriate reward programs to reinforce these people results. In addition, these specific rewards that positively affect performance and contribute to the implementation TQM to be effective should be contingently. More importantly,

manufacturing firms' managers should not underestimate that motivational effect of a simple expression of "thank you" or "well done". The company head office should consider allocating a certain amount of resources to line managers, giving them the discretion and autonomy to use these relatively inexpensive reward systems to enhance employee and team morale, as well as encourage display higher people results.

## 8. Conclusions

This study demonstrated that certain reward programs, namely intrinsic, have the more potential to effect people results than extrinsic rewards.

The major findings from this research study include:

As the main finding of the research, it has been determined that in the Turkish manufacturing industry intrinsic and extrinsic reward practice level is not high. Our analysis found that intrinsic reward practices of "regular expressions of appreciation by managers/leaders to employees" "quality based promotions" and "formal suggestion system" are used more than other intrinsic reward practices; and of the extrinsic rewards "pay for overtime hours work" and "quantity-based performance appraisals" practices are more widely used than other extrinsic reward practices.

As a result of testing research hypotheses, it has been identified that there is a significant difference between intrinsic reward practices according to the market the businesses operate in, their operation periods and TQM experience years; despite this there is not a significant difference according to their sizes. It has been determined that there is a significant difference between extrinsic reward practices of businesses according to the market they operate in and their operation periods; however there is not a significant difference according to their sizes and TQM experience years.

It has been found that there is a significant difference between intrinsic and extrinsic rewards in terms of their effect on people results performance indicators. The use of intrinsic reward practices exhibited a significantly positive effect on people results performance indicators. However, it has been determined that effect of extrinsic reward practices on people results is not significant. This study highlighted the importance of the reward system for implementing TQM, especially putting the intrinsic reward system behind the use of TQM practices on the job.

Several of the limitations to the current study are as follows. To begin with, sample of individuals and organizations in service sectors should be included in subsequent studies. Furthermore, rather than relying on the recall of only human resource managers, as we did, we encourage studies that are able to access the actual formal documents of organizations so they can be content analyzed independently of other data. Further, this present study only investigated some of intrinsic and extrinsic rewards. Future research should investigate the effects of different forms of intrinsic and extrinsic rewards, such as interesting and/or challenging work, increased responsibility, insurance, holidays, medical and healthcare and/or childcare. This will result in a more complete and thorough understanding of the effects of different reward programs on people results. More importantly, this study raises the issue of the distinction between intrinsic and extrinsic reward programs. In particular, it has highlighted the fact that the people results are affected by intrinsic rewards programs.

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