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**EFFECTS OF WESTERN EDUCATION ON EMPLOYEES'  
PARTICIPATION AND JOB SATISFACTION  
IN SAUDI ARABIAN INDUSTRIES**

by

**Abdulrahman Y. Al-Selaim**

**A Dissertation  
Submitted to the  
Faculty of The Graduate College  
in partial fulfillment of the  
requirements for the  
Degree of Doctor of Education  
Department of Educational Leadership**

**Western Michigan University  
Kalamazoo, Michigan  
August 1992**

**EFFECTS OF WESTERN EDUCATION ON EMPLOYEES'  
PARTICIPATION AND JOB SATISFACTION  
IN SAUDI ARABIAN INDUSTRIES**

**Abdulrahman Y. Al-Selaim, Ed.D.**

**Western Michigan University, 1992**

The purpose of this study was to investigate to what degree Western education and Saudi Arabian employees' degree of participation in quality circle programs influences their job satisfaction. These variables were investigated using a survey administered to 150 Saudi Arabian employees working in the production department of a Saudi Arabian company. The Questionnaire of Participation and Satisfaction (QPS) instrument that was used in this investigation is a 20-item questionnaire; items 1-13 were developed by the researcher, and items 14-20 were developed by Abbas (1985). The questionnaire consisted of three components designed to determine: where employees were educated, as well as highest level of education attained; degree of participation in quality circle programs within the production department; and, level of employee job satisfaction. Data collected were analyzed using the *t* test for independent means and two-way analysis of variance (ANOVA).

The findings from this study indicated that Western-educated employees are more likely to participate in quality circle programs than those employees who have been educated within Saudi Arabia. Further, the investigation demonstrated that

Western-educated employees are more likely to be satisfied in their job than are those employees who have been educated within Saudi Arabia. Also, this investigation demonstrated that employees' degree of participation in quality circle programs, whether high or low, does not influence their job satisfaction. Finally, this investigation demonstrated that there are no significant relationships among employees' type of education (Western or Arabian) and degree (high or low) of participation in quality circle programs, and their job satisfaction. That is, there were no significant differences between employees' job satisfaction levels as related to their degree of participation in quality circle programs. Employees who participated in quality circle programs to a high degree expressed no significantly higher levels of job satisfaction than employees who participated to a lesser degree in the quality circle programs. Job satisfaction levels were not considerably higher in employees participating to a high degree in quality circle programs, regardless of where their education was received. Employees educated in Saudi Arabia or in Western countries who participated to a lower degree in quality circle programs showed almost the same levels of job satisfaction as their co-workers who participated to a higher degree.

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**Al-Selaim, Abdulrahman Yahya, Ed.D.**

**Western Michigan University, 1992**

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## **DEDICATION**

**I dedicate this dissertation to my father, mother, and brothers; to my wonderful wife; and to my daughters, Sheima and Shada; their love and support allowed me to gain this degree.**

## ACKNOWLEDGEMENTS

This study would not have been possible without the expert advice, guidance, encouragement, and support of Dr. Patrick Jenlink, who served as chairperson, and who gave so generously and graciously of his time and talents from the inception to completion of this dissertation. My thanks are also extended to Drs. Rosalie Torres and Ralph Chandler for their contributions and support while serving on the dissertation committee.

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This dissertation and the attainment of my doctorate are the result of the enduring faith from my wife, Asha. My love for her and her sense of understanding and encouragement created an atmosphere that permitted me to accomplish my educational goal.

To my two daughters, Sheima and Shada, I express love and gratitude for the time that I was so busy while completing my educational goal. I hope I will serve as an inspiration for them to complete their own education.

Abdulrahman Al-Selaim

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## CHAPTER I

### INTRODUCTION

Saudi Arabia is experiencing rapid and vast development, bringing about significant economic gains. Since the establishment of the industrial sector, management in Saudi Arabian companies has been an important issue, especially with respect to specific management practices and their effects on increasing productivity.

Saudi Arabia is only just now becoming aware of management's impact on production. However, in Western nations (and particularly in the United States), interest in this subject began in the early 1900s; at that time, the classical management school concentrated on increasing organizational efficiency in order to improve production (Elbert & Discenza, 1985; Hersey & Blanchard, 1982). Later, in 1927, the human relations school evolved the basic belief of "productivity through people," concentrating on workers' satisfaction and workers' morale to increase productivity.

The social systems school of management evolved in 1950, and concerned itself with both work and workers, depending on the situation. The emergence of group-dynamics, workers' participation, and the overall concept of teamwork, stemmed from the implementation of the philosophy of both the human relations school and the social systems school (Herzberg, 1968).



### Statement of the Problem

The Saudi Arabian industrial sector has developed quite rapidly (within the past two decades), thanks to abundant oil revenues and intelligent government planning. Saudi Arabia's industrial sector is based on oil and oil-related products. The companies are controlled in part by the government and in part by private investors. Private investors include both Saudi citizens and international consortiums, especially American corporations (Saudi Arabian Basic Industries Corporation [SABIC], 1988). The process of managing these companies in an international environment has become increasingly important. These intercultural activities not only can help to reduce differences in technological and industrial processes, but can also lead to the adoption of new managerial concepts and techniques.

In the past decade, management practices implemented in Saudi Arabia have been from established American methods, which most Saudi industry experts feel achieved a high level of performance at the time (SABIC, 1988). However, today, the economic sector in Saudi Arabia is growing more and more complex, and there seems to be a general attitude throughout the industrial sector to concentrate on finding even better ways to achieve employee job satisfaction and commitment, and to also increase productivity and quality (SABIC, 1988). In spite of the full utilization of new technologies, consultation and advice from Western specialists, and a massive effort to train and educate the indigenous population, Saudi Arabian industries still face serious problems in the 1990s. These problems include a low

level of job satisfaction in employees, little worker loyalty toward employers, low production and quality, high turnover rates, and high absenteeism (Abbas, 1989; Abbas & Al-Shakhis, 1989; Almaney, 1980; Badawy, 1980). One proposed solution to these problems has been to introduce the Japanese concept of quality circles to Saudi Arabian industries.

According to Cole (1980), the Japanese have shown a great capacity to borrow, adopt, and institutionalize some of the methods, techniques and ideas of Western organizational technology and behavioral science. This capacity is clearly evident in the introduction of quality circles (QCs). A quality circle, as defined by Marks (1986), is a small group of people who perform similar work, who meet voluntarily on a regular basis (usually once a week), to analyze work-related problems and propose solutions, with management support. Quality circles are a "way of capturing the creative and innovative power that lies within the work force" (Elmuti, 1989, p. 52). In the past, there has been much debate on whether quality circle programs could succeed in countries outside of Japan, because the Japanese work system and related ethics are so unique to that country. However, many large companies in the United States and elsewhere have been effectively using and adapting quality circles to their companies (Elmuti, 1989).

Cook (1982) stated that many organizations in the United States have increased productivity and achieved organizational goals by the use of technologies; however, in other organizations, Cook found that there was a major need to improve workers' performance in order to increase productivity. He believed that greater productivity

increases could be gained by concentrating more on workers' performance, and reasons for lower performance by workers. This idea can also be applied to many organizations in Saudi Arabia, and becomes more obvious when we examine Saudi workers' general attitudes toward their jobs (Abbas, 1989; Abbas & Swiercz, 1986; Yohannan, 1985).

Certain customs, traditions, and norms that are localized in Saudi Arabia and the surrounding Middle East region play a large role in shaping workers' attitudes. For example, custom discourages Saudis from accepting manual, or even semi-skilled jobs; Saudi men prefer to seek higher status work, such as management, or other more professional occupations. Moreover, industries in Saudi Arabia are controlled in part by the government, and the government guarantees work in industries to all Saudi nationals, regardless of educational qualifications. Therefore, workers' attitudes have evolved that make it difficult for employers to instill a sense of loyalty or commitment in their workers, as many studies have shown (Abbas, 1989; Abbas & Al-Shakhis, 1989; Ikhlas, 1987; Isagholian, 1987).

Because Saudi Arabia modernized so rapidly, this created an immediate need to import skilled workers to run the country's new infrastructure (Ministry of Planning, 1983). Beginning in 1975, the Saudi government became aware that their own population must equip itself to oversee the modernization process. A massive effort is now underway, changing the country's heretofore largely illiterate workforce into skilled workers (Ministry of Planning, 1983). While concentrating on building

and staffing educational institutions (from elementary to the university level), the government also began sending a large percentage of students to Western countries --in particular, to the United States and Western Europe--to obtain their education (Ministry of Planning, 1983). Although the percentage of students sent abroad to Western countries has declined in recent years (because of the establishment of several comparable universities and colleges with varied curricula in the Kingdom of Saudi Arabia) many students continue to receive post-graduate degrees from Western educational institutions (Ministry of Planning, 1983). In the meantime, an extremely large foreign workforce has been employed in Saudi Arabia in government administration positions, as well as in many positions of authority in all sectors, including, most specifically, the industrial sector (SABIC, 1988).

The government's policy of sending many students abroad to complete their higher education seems to have resulted in creating a new generation of what could be called "modernized" Saudis, i.e., Saudis who are more Westernized, in their ideas and values, who have been exposed to, and have adapted to a wider variety of technologies, strategies and, in general, other ways of looking at the world (Abbas, 1989; Abbas & Al-Shakhis, 1989; Al-Twaijri, 1989). Political, social, and economic ideas different from those followed traditionally by Saudi Arabia and its people have filtered back to the country via these students. Many of these students have consequently transformed some, and abandoned other traditional Saudi Arabian customs in an attempt to integrate themselves back into the old society that they had left some time ago. Others have tried to create a new niche for themselves, holding

on to some Western cultural traits, ideas, and values that they perceived to be valid while living abroad. This new segment of the Saudi society seems to be adjusting more readily to the rapid social changes taking place in Saudi Arabia today (Abbas, 1985; Almaney, 1981).

The cultural situation that Saudi Arabia is experiencing today reflects what Badawy (1980), as well as others (Gonzales & McMillan, 1961; Harris & Moran, 1981), have found from their studies. For example, Badawy (1980) stresses that before implementing new management strategies in any organization, both the culture of the organization and the culture of the society in which the organization is based, should be fully studied and considered. Harris and Moran (1981) agree. They point out the necessity of modifying managerial attitudes and roles, according to the accepted behavioral norms for any given society, to establish effective management strategies. Societal cultural traits can affect the organization's management strategies adopted from other cultures, and this is especially true when transferring management strategies from Western companies to companies in less developed countries with different cultures (Gonzales & McMillan, 1961).

It is reasonable to assume that Saudi Arabian Western-educated students who have found many Western ideas and values to be valid would be more open-minded toward changes in management practices in Saudi Arabia, and would be more willing to give new programs and strategies a chance to succeed, than would their Saudi Arabian-educated counterparts.

SABIC (Saudi Arabian Basic Industrial Corporation) is the main source in Saudi Arabia for introducing western technology, management techniques, and strategies into Saudi Arabian companies. SABIC is a complex of 15 petroleum-related industrial companies, located in the industrial city of Al-Jubail, Saudi Arabia. These companies represent a joint venture between the Saudi Arabian government and western corporations, with the purpose of building up Saudi Arabia's industrial capabilities. Quality circle programs have recently been introduced into certain SABIC industrial companies in Saudi Arabia, as an attempt to improve worker satisfaction, loyalty, production, quality, and related problems. This situation poses the opportunity to examine any changes in job satisfaction among quality circle participants, both Western-educated and Saudi Arabian-educated.

The purpose of this study, then, was to investigate the extent to which Western education and the degree of participation in quality circle programs of employees working in Saudi Arabian industries have an effect on employees' job satisfaction. It was expected that Western-educated Saudis would participate to a higher degree in quality circle programs than Saudis educated in Saudi Arabia. One reason for this expectation was that employees educated abroad in a Western country would be more familiar with the Western system of management than those educated in Saudi Arabia. Therefore, these employees would display more flexibility toward new ideas and changes. This study investigated the impact of both type of education and participation in quality circle programs on job satisfaction.

### Significance of the Study

The following paragraphs explain three areas of significance for this study. First, very few studies had been conducted on industrial development in developing countries, in general, and on Saudi Arabia, in particular. This study, therefore, contributes to the general literature concerning developing countries.

Second, while much research has been conducted on quality circle programs implemented in Western organizations, little research exists on quality circle programs implemented in industrial sectors of developing countries. This study contributes to research on management styles (i.e., employee participation, quality circle programs) implemented in the industrial sectors of developing countries.

Third, this study may also stimulate changes in the Saudi Arabian industrial sector, if needed, and assist in manpower planning by presenting the findings of this study to the proper agency in the Saudi Arabian government that oversees industrial development.

### Overview of the Methodology

This study was conducted using a survey research design. Divided into three parts, the survey used measured both the degree of employees' participation in quality circles and their level of job satisfaction. The first part of the survey asked for demographic data on the respondents, including their type of education (independent variable). The second part measured the degree of participation of employees in

quality circles (independent variable). The final part of the survey measured job satisfaction (dependent variable). The design of this survey allowed the researcher to investigate any relationships among Western-educated employees and Saudi Arabian-educated employees, their participation in quality circles, and their job satisfaction.

### **Sample**

The population for this research consisted of the employees working in the production department at the Saudi Arabian Basic Industries Corporation (SABIC). Two groups of employees were identified: (1) employees who were Western-educated, and (2) employees who were Saudi Arabian-educated.

A random sample of 75 employees from each category were selected from a list of all employees from the department of production, provided by the personnel department at SABIC. The list described (a) the number of years each employee had been working in the department of production, (b) the employee's nationality, and (c) the colleges those employees attended.

### **Instrumentation**

The Questionnaire of Participation and Satisfaction (QPS) instrument that was used in this investigation is a 20-item questionnaire; items 1–13 were developed by the researcher, and items 14–20 were developed by Abbas (1985). It was administered in two versions: Arabic language, and English language, in order to encourage a higher response rate. Items 1–4 were designed to collect demographics



data about the participant, items 5–13 were developed to measure the employee's degree of participation and involvement in quality circles, and items 14–20 were taken from Abbas (1985), to measure employee's job satisfaction. Permission was granted from Abbas (1985) to use these items (see Appendix A). The survey was administered by one manager from the safety department at one SABIC company. Manager participation was solicited by the president of the company to administer the instrument. This procedure was used to overcome problems associated with mail service and minimize the nonresponse rate. The employees were assured that the questionnaire was for research purposes only and that their responses would remain anonymous.

### Data Analysis

The individual respondent scores obtained on the instrument measured the independent variables: type of education and degree of participation in quality circles; and the dependent variable: level of job satisfaction. The  $t$  test of independent means, and two way analyses of variance for independent means were used to test the null hypotheses at .05 level of significance. Statistical data computations were made through the Academic Computing Services at Western Michigan University.

### Organization of the Study

The introduction, statement of the problem, significance of the study, methodology, and organization of the study have been presented in Chapter I. A

review of selected literature on quality circle, job satisfaction, culture, and management strategies are presented in Chapter II. In Chapter III, the methodology and research design are discussed. Chapter IV presents the study's findings. Conclusions and recommendations are presented in Chapter V.

## CHAPTER II

### REVIEW OF THE LITERATURE

#### Introduction

The term "quality circle" was first introduced in May of 1962 by the Japanese Union of Scientists and Engineers (JUSE), in an article entitled "Quality Control for the Foreman" (Crocker, 1984). Contributions to the improvement of quality circles and their implementation came from fields such as industrial psychology and industrial sociology, which emphasize group dynamics and employee participation to improve production quality and the quality of work conditions.

Management in United States industries has experienced great pressure from the Occupational Safety and Health Act, workman's compensation, and union demands (Mitchell, 1986). This has forced management to consider employee participation in improving the quality of work conditions, and this is achieved partially by implementing quality circle programs.

Cole (1980, cited in Mitchell, 1986) states:

In the early 1970's, there were extensive discussions in America...about the need to "humanize work" and raise the quality of work life. By increasing employee participation in workplace decisions, increasing job variety, and making more effective use of worker potential, it was argued, not only would the quality of work life be enhanced, but organizational efficiency and worker productivity would be improved. (p. 38)

Industrial organizations have become concerned with people-oriented management techniques, and they have, consequently, become increasingly interested in the implementation of quality circles (Mitchell, 1986). The economy is also pushing toward more and more production with improved quality. This, in turn, makes industries believe more and more in the concept of productivity through people. This means, in part, that employing quality circles will increase production and production quality (Mitchell, 1986).

Many writers and researchers in organizational management theory put great emphasis on the importance of management's devotion and commitment to quality circle programs (Dale, 1985; Elmuti, 1989; Liverpool, Gupta & Smith, 1989; Putti & Cheong, 1990). Their research tends to establish that quality circles, if implemented and monitored properly, will prove successful in every organization and at every organizational level. In general, conclusions concerning the positive impact of quality circle programs are similar and consistent (Dale, 1985; Elmuti, 1989; Liverpool et al., 1989; Putti & Cheong, 1990).

### The Formation of Quality Circles

The formation of quality circle programs in a single organization has been described by Sud Ingle (1982):

1. A steering committee that is made up of 5 to 15 members; their job is to oversee and direct the quality circle program in the company. They will attend circle meetings and management presentations when requested and they will implement the

solutions and suggestions that are recommended by the quality circle members. They act as mediators between quality members and the upper management.

2. The coordinator is usually a plant manager or an industrial engineer whose job is to supervise the facilitators, to provide administrative duties, and to insure the continuation of the program.

3. The facilitators are the mediators between the steering committee and the group leaders and they keep the steering committee informed about the circle's activities, demands, and problems.

4. Circle leaders—for every circle there is a leader who might be the supervisor or any other selected member of the group. The leader will be highly trained in the communications skills and in the problem solving methods. The responsibilities of the leader include scheduling and conducting meetings, directing the issues at every meeting, and training circle members.

5. Circle members include 4 to 10 employees who work in the same area or department and who volunteer to meet periodically to identify, analyze, and solve work related problems.

Some organizations might have all five levels, while others might eliminate some levels, depending on the size of the organization.

### Function of Quality Circles

Workers from the same department volunteer to be members in a specific circle and they get together once a week to solve a work-related problem that is

presented by one of the members or by the circle leader. The group starts the discussion by identifying the problem and breaking it up into small segments. The problem and its parts are then analyzed, and finally a solution or several solutions are formed. The group then selects the best solution, keeping in mind the seriousness of the problem, the cost of implementing the solution, and benefits gained from implementing it (Hutchins, 1985; Ingle, 1982).

The leader is the key person in the group in terms of helping shape and organize thoughts, and in choosing the best solution. The leader then organizes the meeting agenda, which includes the problem that was discussed and the solutions that were suggested. This document is submitted to the facilitators, who will review it and send it to the steering committee. The steering committee will investigate the problem and study the economic feasibility and practical ability of implementing the solutions. A recommendation as to the best solution is sent to upper management by the steering committee. Management must then implement the solution promptly and provide quick feedback to the circle members. Management supportiveness and quick response are the most important factors in the function and success of quality circle programs, because their feedback increases the morale and commitment of the circle members (Hutchins, 1985).

### Process of Quality Circles

Ingle and Ingle (1983) listed the most necessary steps to successful quality circle programs as being: people-building philosophy, volunteer participation, management support, training, and recognition (p. 165).

Crocker's (1984) investigations of quality circle programs include descriptive data, historical data, experimental studies with functional data, and documented conclusions. In his conclusion, Crocker lists several steps that would contribute to the failure of quality circles, and similarly, steps which would ensure their success. Crocker states: "Quality circles are people-builders. They allow employees to be human and not just robots or appendages of machines. Circles require workers to use their physical efforts" (p. 231).

Leonard (1983) defines quality circles, explains reasons for their success in Japan, and the reasons for their more limited success in the United States. Leonard provides remedies for United States' industries to ensure the success of quality circles. He states: "Looking closely at forces at work in the organization's internal environment can help the manager determine whether or not a quality circle program can survive and succeed" (p. 70).

Misken and Gmelch (1985) provide an excellent analysis of the traits and skills that quality circle leaders should possess. They provide some recommendations concerning development of leadership skills among team leaders, as well as among team members. They also recommend that the success of the program be measured by workers' morale rather than by dollars, by stating:

Too often we find ourselves measuring success in dollars. How much has the team saved the organization? What was the value of increased productivity resulting from this team's efforts? How many dollars of profits were added to that team's recommendations? The desired focus of quality teams in an organization...the real measure of success...must be in the development of individual team members if the team process is to be sustained. (p. 124).

The design of implementation plans, along with employee training plans, are prerequisites to starting the program (Barra, 1983). Management support, from the top down, with supervisor-level comfort, is critical (Ingle & Ingle, 1983).

Training is the most important part of the process, and may occur in any number of ways. Members of quality circle programs should receive training in problem solving, quality control, and group dynamics to help them function well (Mitchell, 1986). It could be done by outside consultants who should have at least two years experience in providing training and consultation. Consultants should also provide training materials, and at least a week of training; they should also remain available to answer questions and to help solve problems (Thompson, 1982).

Robson (1984) has examined and followed up some quality circle programs implemented in certain organizations, such as British Telecom, Bally Shoes, The Toy Industry, and many others. He has traced each program from the first step to the last step of the implementation process, and has observed the results and the factors behind the success or failure of each program. In pointing out some of the problems, Robson found that the concept of quality circles is more complex than it seems to be, and that this is why many organizations fail in introducing and maintaining them successfully. While there are many reasons for failure, Robson found that by far, the most common reason for failure was that "the organizational culture did not really fit the approach" (p. 158). For successful implementation, there is a need to move slowly, as well as the need to start with pilot programs (Barra, 1983).



Robson (1984) provides some recommendations for the introduction of quality circles in an organization. During this introduction phase, Robson would emphasize that organizations should seek the help of a reputable consultant and utilize a well-designed training program.

1. Quality circles have different forms and shapes. What is presented here, in this study, is the most typical and used one, but not the only one, having been discussed by Hutchins (1986).

2. There could be quality circles in different levels of the organization, such as white collar quality circles, blue collar circles, and vendor-buyer circles.

3. Union members could also be members of a quality circle if they so desired.

4. A solution might not be possible to implement because of problems, but feedback from management and an explanation are necessary.

5. Quality circle members are not allowed to discuss pay, benefits, or contractual agreements, and they must not criticize individuals or departments. They discuss work-related problems in their department only.

6. Senior management teams must be totally committed if quality circles are to succeed.

7. Quality circles do not pose a threat to management, employees, or unions, because they allow workers to solve problems within their work area only.

8. Quality circles do not bypass managers, and they must work within the system. Circles do not have any authority.

9. Members of a quality circle are free to choose in joining a circle and in leaving it any time.

10. Quality circles will not function and should not be considered with part-time workers (Robson, 1984).

### **Benefits of Quality Circles**

Quality circles have been used in many organizations, such as factories, hospitals, educational institutes, construction, service industries, businesses, and government agencies, and they all have accomplished sizable benefits from implementing successful quality circle programs (Griffin, 1988; Ingle, 1982; Robson, 1984). Some of the major benefits are:

1. Higher employee morale, because employee participation in problem-solving and the decision making process allow the employees to feel involved and important, and that they are being given a chance to prove their ability in dealing with problems in their jobs (Mitchell, 1986; Tang, Tollison, & Whiteside, 1989). As morale goes up, team spirit goes up, resulting in a group effort to increase productivity and the quality (Crocker, 1984).

2. Quality circles emphasize the quality of all aspects of the organization, creating an atmosphere of quality awareness and consciousness among management, supervisors and employees, which makes everyone develop a personal devotion to the quality of production (Chase, 1983).

3. Communication improves in all directions. Management starts to understand employees much better and gets to know their concerns and problems (Roll & Roll, 1983). Employees start to understand the role of management by being involved in the problem-solving and the decision making process. Employees get to understand each other through meetings and group activities (Ingle, 1982; Ingle & Ingle, 1983).

4. Since the employees are the ones to suggest the solutions and changes, they become very committed to them when they are implemented (Gibson, 1983).

5. Waste of scrap and materials is reduced. This is due to combined efforts of circle members in the reduction of costs, and the awareness they develop through training and interaction with each other of the cost of materials and the savings from the reduction of material waste (Hutchins, 1985).

6. Lower labor turnover is another benefit. Quality circles improve worker morale, and this increases job satisfaction, which in turn causes low labor turnover (Ingle, 1982).

7. Material handling is improved, and delays and holdups are reduced. This is due to the improved communication between employees. Improved communication through group activities is a major advantage one can enjoy by initiating quality circles (Ingle & Ingle, 1983).

8. There are also fewer grievances. Quality circles improve the relationship between management and employees, as well as helping the employees express their

feelings and concerns to the management, who will work out an agreeable solution for both of them, thus reducing the number of grievances (Robson, 1984).

9. Absenteeism is reduced. Due to higher job satisfaction among employees, they will want to be at work more often (Gibson, 1983; Robson, 1984).

10. Safety will be improved, and there will be fewer accidents. In quality circle meetings, employees can point out hazards in their work area and request the elimination of them (Ingle, 1982).

11. Productivity, costs, and quality can be controlled. Through the suggestions and participation of employees in all divisions of the organization, quality and productivity could be improved, and the cost could be maintained at a low level (Griffin, 1988).

### Quality Circles in Japan

Quality circles in Japan were met with great enthusiasm in 1965. Three years after the first circle was introduced, there were 4,930 registered quality circles in Japan. Crocker (1984) stated that the use of and commitment to quality circles has accomplished great success, and has boosted the Japanese economy. Crocker explains:

The achievement is reflected in the Japanese worldwide industrial trade surplus of over \$76 billion in 1981. During the same year the U.S. had a deficit of \$28 billion. Japan has succeeded because there is an all out effort to seize world leadership in quality, and this, in no small measure, is attributable to the QCC movement (p. 13).

The tremendous success of quality circles in Japan is attributed to the following factors stated by Crocker (1984):

1. Narrow industrial base. After World War II, Japan decided to concentrate its industrial activities on three areas: steel, automobiles, and consumer electronics.

2. Strong loyalty to the company. The company is like a family that the employees identify with. When a Japanese man is asked where he works, his reply would be, "I am a Toyota man," or "I am a Datsun man"; this is due to the great support and concern that management gives to employees.

3. Homogeneous population. Japan is very homogeneous in regard to race, religion, language, and culture. Class differences among workers, or among workers and managers, is almost nonexistent.

4. Japanese work ethics. The Japanese commitment to team work, self-worth, and national growth is almost ritual.

5. Management-union relations. Unions in Japan are enterprise unions, rather than industry or craft unions, and each company has its own. Management-union relations are very good, and they all work together to provide better working conditions for the employees. Management also encourages workers to join the unions and improve their leadership skills.

6. Lifetime employment. Permanent employees are seldom laid off or discharged. They are usually transferred to other areas if they are dispensable. If the company is under pressure, the government will help to keep the business running.

7. Family structure. Japanese social structure is that of the extended family, where reliance upon group work in the family is mandatory for survival.

These factors put together can explain why a teamwork philosophy, such as quality circles, was very successful and fruitful in Japan.

### Quality Circles in America

After widespread use of quality circles in Japan and the noticeable success and impact they had on Japanese industries, United States industries began to adopt the Japanese system. The first circles were formed in October of 1974, at the Lockheed Space Missile factory in California (Crocker, 1984). Those first circles were so successful in their financial rewards, as well as in improving worker morale, that less than three years after implementation, Lockheed reported that the net savings from those initial circles was over \$3 million, and the benefit to cost ratio an estimated 8:1. By 1978 there were about 25 organizations that had implemented quality circles, and most of them had reported great benefits from those programs. The number of quality circles rapidly grew to over 6,000 by 1980 (Gryna, 1981).

One of the main organizations that contributed to the spread and promotion of quality circles was the International Association of Quality Circles, which was established in the United States in 1977, and which had, by 1982, approximately 5,400 members. By 1982, the New York Stock Exchange survey showed that 75% of the large manufacturing companies (with over 10,000 employees) had quality circles, and 44% of the total companies with over 500 employees were using quality circles

(Crocker, 1984). Quality circles in the United States have achieved some success, but this success, when compared and measured by the success that was achieved in Japan, could be considered very slow and marginal. This is due to the following factors, according to Crocker (1984):

1. Before quality circles were introduced, the prevailing management style in the United States was autocratic, which makes the philosophy of participative management hard to accept.

2. Management–employee relations were very poor, consisting of hostility and mistrust.

3. The labor unions had an anti–management attitude, and perceived any new program as a way to manipulate employees and increase production without increasing pay. The unions, therefore, encouraged employees not to cooperate with management.

4. Inadequate support from senior and middle management has hindered the process. Senior management wants quick implementation and fast financial rewards, which is not the basic philosophy of quality circles; they usually give up and eliminate the program at its birth. Middle management, on the other hand, feels insecure with the idea of employee participation in decision making. Feeling threatened, they try to make it fail.

Most of the reasons behind the success of quality circles in Japan versus quality circles' success in America are attributable to differences between the two cultures (Crocker, 1984, p. 69). For example, in Japan, the unions cooperate with management, thus creating trust. On the other hand, unions in America are more

likely to treat management with suspicion, and vice-versa. Crocker goes on to state other differences between Japanese and American companies: the slow progress of careers for workers in Japan compared to the rapidness of career progress in America; the differing reasons for promotions; the commitment (or lack thereof, in the American case) to retrain workers; and the acceptance or rejection of innovations, robotics and training (Crocker, 1984, p. 69).

According to many previous studies, a by-product of implementing quality circles is improved job satisfaction of employees (Chase, 1983; Crocker, 1984; Gibson, 1983; Ingle & Ingle, 1983; Mitchell, 1986; Tang et al., 1989). Participation is closely related to job satisfaction (Roll & Roll, 1983). One purpose of quality circle programs is to enhance the participation of employees by involving them in the decision-making process; by their involvement, employees are expected to become more committed to the success of the implemented decisions (Gibson, 1983; Ingle & Ingle, 1983; Roll & Roll, 1983). A closer look at the factors involved in job satisfaction/dissatisfaction is beneficial in this study in order to understand the role of quality circles in improving worker satisfaction.

### Job Satisfaction

Definitions of job satisfaction are both numerous and diverse, simply because the concept of satisfaction, as related to the job, is difficult to define (Carroll, 1973).

While most industrial psychologists accept the definition that job satisfaction is a pleasurable or positive emotional state resulting from the appraisal of one's job



or job experiences, in practice, the concept of job satisfaction is operationally defined; meaning that "job satisfaction is whatever my [arbitrarily chosen] measure of it measures" (Locke, 1976, p. 1300). This idea of defining job satisfaction depending on what an individual researcher is working on (specific aspects of job satisfaction), is common in recent literature (Carroll, 1973).

Defining job satisfaction also depends heavily on the influence of environmental factors at any given time. For example, such factors as new technologies, social and economic conditions, or management practices may change how job satisfaction is defined now, compared to future times. In fact, Hoppock (1935, as cited in Locke, 1976), who published the first comprehensive study of job satisfaction, found that any number of factors could affect an individual's job satisfaction, including psychological, physiological and environmental factors.

Moreover, since satisfaction is an emotional response (Locke, 1976), its definition falls within the subjective experiences of the single individual toward his work situation (Locke, 1976; also can be found in Korman, Greenhaus & Badin, 1977; Kumar, 1986).

Perusal of the literature indicates that defining job satisfaction in individuals consists of four characteristics: (1) the type of satisfaction being measured; (2) the individual researcher's interests; (3) the variables under scrutiny; and (4) the prevailing social climate of the times (Chandler & Plano, 1988; Herzberg, Mausner & Snyderman, 1959; Locke, 1976).

Two major themes mark the direction theoretical research on job satisfaction has taken so far: (1) causal models (process theories) of job satisfaction and (2) content theories. The causal models try to identify the types or classes of variables (needs, values, expectancies, perceptions, etc.) considered causally relevant, as well as how these variables combine to determine overall job satisfaction (Locke, 1976). Content theories, on the other hand, concentrate on identifying the particular needs and values necessary to be achieved in order for an individual to be satisfied with his job.

The two major content theories that dominate the literature are Maslow's Need Hierarchy theory and Herzberg's Motivator-Hygiene (or two-factor) theory. Maslow's theory (1954) involves five categories of man's needs, arranged in a hierarchy, according to which needs must be met first before higher needs can be achieved. Starting with the most basic needs (physiological; i.e., food, water, air, etc.), Maslow asserts that man moves up the hierarchy as each group of needs are met. After physiological needs are met comes safety needs (physical and economic security), belongingness and love needs, esteem needs, and finally, self-actualization--achieving one's own potentials. Maslow further contends that an individual does not desire or seek higher-level needs until lower-level needs are first satisfied. Therefore, there is no motivation for an individual to seek belongingness or love, for example, until physiological and safety needs are met. Maslow did not design his theory for use on worker motivation, per se, although it can, and has certainly, been adapted to theories on factors that relate to an individual's job satisfaction although

it has been criticized for lack of empirical support in field studies (Chandler & Plano, 1988, p. 137).

More than Maslow's theory, however, Herzberg's Two-Factor theory can be found in the majority of literature related to job satisfaction. This theory, which is also known as Herzberg's Motivator-Hygiene theory, was put forth from the results of his 1959 study about 200 engineers and accountants, who were asked to describe times when they felt either especially satisfied or dissatisfied with their jobs. These descriptions were then classified into groups, according to their similarity and the frequency with which they were mentioned by the subjects. Most often mentioned by the subjects of the study as sources of satisfaction, but less frequently as sources of dissatisfaction were aspects of the work itself: achievement, promotion, recognition, responsibility, and the work itself. Herzberg labeled these factors as "motivators" (Chandler & Plano, 1988, p. 135).

Other categories, labeled by Herzberg as "hygienes," were mentioned most often as sources of dissatisfaction, rather than as sources of satisfaction. These categories were: supervision, interpersonal relations, working conditions, company policies, and salary. In other words, sources of dissatisfaction primarily involved areas on the periphery of the work itself (Herzberg et al., 1959).

Therefore, Herzberg maintained that job satisfaction and job dissatisfaction result from different, rather than the same causes: motivators related to satisfaction, whereas hygiene factors were related to dissatisfaction.

### Factors Relating to Job Satisfaction

Numerous factors affect an individual's job satisfaction, as has been seen in the previous section. In this particular review of the literature, however, only some of them will be scrutinized: workgroup, supervisors, pay (salary), organization, promotion (chances for advancement within the organization).

#### Workgroup and Job Satisfaction

In his study of decision styles and work satisfaction among managers of select Middle Eastern countries, Ali (1989) attempted to discover which individual and organizational characteristics are associated with worker satisfaction and decision styles. He measures workgroup, supervisors, pay, job, organization, promotion and chances for advancement, and found that while the Arabian managers in his study favored a traditional approach to management (largely influenced by their cultural and historic values), worker satisfaction among Ali's group of Arabian managers was similar to satisfaction of managers from other underdeveloped, as well as developed nations (Abbas, 1989b).

Another study found that the effect of leadership on workers had much to do with job satisfaction. Glisson (1989) sought to identify the dimensions of leadership that could affect the attitudes of workers from 22 different human service organizations. Maturity, power and intelligence were found to be three of the most important factors that workers evaluated in their leaders. Significant relationships

between the dimensions of leadership and job satisfaction were also found (Glisson, 1989).

Glisson and Durick (1988) created a model predicting job satisfaction and commitment by collecting data from individuals in a number of different human service organizations. Variables from the categories of job characteristics, worker characteristics, and organizational characteristics were used in the model. The end analysis indicated that satisfaction was most highly correlated with role ambiguity, task identity, and task significance; while commitment correlated with role conflict, role ambiguity, organization age, and leadership. Also, workers' education was found to be a good predictor of commitment, but not of satisfaction (Glisson & Durick, 1988).

Wall, Kemp, Jackson and Clegg (1986) showed that autonomous workgroups created a lasting effect on employees' intrinsic job satisfaction, as well as a more temporary effect on extrinsic job satisfaction, in their long-term field study of workers at a new factory owned by a large company in the United Kingdom. This experimental work design was believed to enhance worker motivation and group performance, as well as job satisfaction. While the study did not find significant consequences for work motivation or performance, improvements in productivity were made possible by eliminating supervisory positions, even though labor turnover increased (Wall et al., 1990).

### Supervisor and Job Satisfaction

There have been a number of studies conducted that relate how employees' feelings and attitudes toward their supervisors have much to do with employees' job satisfaction. For example, a study by Rahim (1989) showed how leader power was related to compliance and satisfaction with supervision. In this study, Rahim (1989) examined the effectiveness of the bases of leader power (i.e., coercive, reward, legitimate, expert and referent) in influencing behavioral compliance with a superior's wishes and satisfaction. Expert and referent power bases were positively associated with compliance and satisfaction, while a legitimate power base was found to be positively associated with compliance, but negatively associated with satisfaction.

Organizational commitment and job performance were studied in research done by Meyer, Paunonen, Gellatly, Goffin and Jackson (1989). They examined the relationship between the performance of first-level managers and their affective commitment (emotional attachment to, identification with, and involvement with the organization), and their continuance commitment (perceived costs associated with leaving the firm), to job satisfaction. Affective commitment correlated positively and continuance commitment correlated negatively with all three performance measures. The purpose of Meyer et. al. (1989) was to show the importance of distinguishing between commitment based on desire and commitment based on need, both of which can affect job satisfaction, negatively or positively.

In his study on what motivates employees, and how workers and supervisors differ in their assessment on this subject, Kovach (1987) found an interesting and disturbing trend. Despite numerous research evidence that employees rank "self-fulfillment" factors as what motivates them the most (i.e., interesting work, full appreciation of work done, feelings of being in on things, etc.), supervisors, on the other hand, continue to believe that wages are the main thing that motivates employees, and they place other factors, such as work itself, achievement and recognition, at the bottom of the list. Kovach's (1987) research on the differing attitudes of employees and supervisors can serve as a basis for more research into this subject.

### Pay and Job Satisfaction

In the majority of literature on pay and its relationship to job satisfaction, the researcher found that pay itself, in most cases, does not affect the level of worker job satisfaction (McHale, 1990; Steffy & Jones, 1990; Stratton, 1988).

For example, a study conducted by McHale (1990) on companies in the United Kingdom that are expressing strong interest in performance management and pay for performance shows that incentive bonus schemes work only in certain situations. Other strategies to create improved performance and productivity should be adopted, according to McHale (1990). Further, the key to deciding which performance strategy is needed is in understanding the employee's relationship to the work and the environment.

The different attitudes between full-time and part-time workers, role strain, and work satisfaction were explored by Steffy and Jones (1990), in their study of approximately 10,000 workers from 65 small and medium-sized hospitals. Differences in satisfaction with pay, advancement, management, coworkers and the work in general were evaluated. Role strain was seen to effect part-time workers more, but no differences in satisfaction were found to exist.

On the other hand, Lumpkin and Tudor (1990) showed in their study that pay did have an effect on job satisfaction among a group of 395 purchasing managers from several different firms. However, this effect seems to be caused by gender. Female purchasing managers experienced an annual mean salary of about 36 percent less than the average mean salary of their male counterparts, and this led to findings that indicated females in the study group had more negative perceptions of job-related factors than did the males in the study group. Women also had more negative attitudes about: pay, promotion, company policy and support, supervisors and coworkers. Lumpkin and Tudor (1990) concluded that since female purchasing managers are paid less and are less satisfied with that pay, it follows that job satisfaction, and ultimately performance, may be lower because of this fact.

Stratton (1988) conducted part of the 1988 "Quality Progress Salary Survey", in which respondents were asked the open-ended question: "Are you fairly compensated for your work?" Stratton found that most respondents felt there was more to fair compensation than wages alone, including things such as health insurance, profit sharing, or management support.



### Organizational Structure and Job Satisfaction

The organizational structure and climate of companies seems to also have an effect on worker satisfaction. In the review of literature on this subject, much research has been conducted; a few studies seem to be representative of the current views on this issue.

The impact of top-management actions on employee attitudes and perceptions is the subject of a study conducted by Niehoff, Enz, and Grover (1990). Popular approaches to organizational leadership show that productivity and innovation in U.S. organizations can be improved if top managers put more emphasis on organizational values and culture. To prove this, Niehoff et al. (1990) conducted a survey of 862 employees of a midwestern insurance company. The results suggest that top management actions are strongly related to employee commitment, job satisfaction and role ambiguity, and while the effects of certain actions varied for different organizational settings, the researchers found that five top management actions positively affected these three factors: (1) the development and sharing of a vision for the organization; (2) modeling that vision; (3) encouraging innovativeness; (4) supporting employee efforts; and (5) allowing employees input into decisions concerning their jobs.

In their study, Pavesic and Brymer (1990) looked at the hospitality industry to discover why so many younger generation hotel and restaurant managers seemed dissatisfied with their positions. Surveying 442 recent graduates, Pavesic and Brymer

found that many of the respondents changed positions often, citing personal reasons, inadequate pay, and long hours as some of the reasons for their dissatisfaction. Respondents from the top-ranked schools were the least satisfied with their career programs.

Lincoln (1989) compared employee work attitudes with management practices in the United States and Japan, attempting to discover whether management practice and organizational design can account for the differences he saw in employees' attitudes and motivation in the U.S. and Japan. His results were somewhat surprising. Lincoln's investigation spanned three years (from 1981 to 1983), in which he interviewed over 8,000 employees at 106 factories in the U.S. and Japan, as well as factory executives. The results showed that while the Japanese are less satisfied with their jobs, they are more committed, and Lincoln attributes this to the Japanese-style management and employment strategies, as well as seniority systems and the strong fostering of social bonds. He also discovered that management and employee techniques of both the U.S. and Japanese plants produced similar employee work attitudes. Japanese workers are more committed, says Lincoln, because of such practices as quality circles, the ringi system, centralized authority combined with de facto participation, employee services, seniority compensation, and enterprise unions.

Finally, Lawson Savery (1989) looked at the influence of particular job factors on employee satisfaction, and found that internal or external conflict, failure to reward, and the lack of recognition all produce low job satisfaction, all of which can

cause increases in labor turnover and absenteeism. His research also supports the theory that high job dissatisfaction results in frustration and poor health in workers.

#### Promotion/Future Advancement and Job Satisfaction

Numerous research studies have concentrated on the subject of how employees perceive their chances for advancement and promotion within a company, and their level of job satisfaction. Representative of this research is Linden's (1991) survey of how happy people are with their work. Conducting the survey for the Consumer Research Center of the Conference Board by National Family Opinion Inc., Linden found that most Americans are generally satisfied with their jobs. But on the basic economic issues, such as job security, wages and promotion policy, the degree of satisfaction was found to be only moderate, and further, that workers showed a high level of discontent with job promotion policies.

Another study, this one conducted with workers in the United Kingdom, investigates why people have become more mobile in their jobs (Beaumont, 1989). Through a major newspaper survey, Beaumont (1989) found that the workforce in the U.K. has become quite mobile, both in the frequency of changing jobs, and in the willingness of workers to relocate elsewhere within the country, as well as abroad. The desire for promotion, and the desire for change were found to be the leading incentives for changing jobs.

Much of the literature on promotion and advancement as factors of job satisfaction concentrated on the perception, as well as the reality in many industries,

of fewer opportunities for advancement because of the economic climate and top management's desire to cut back on the levels of managers in their organizations. One such study, conducted by Goffee and Scase (1986), concentrated on this issue, and limited its survey to six major organizations within the United Kingdom, in which they interviewed managers employed in these companies. Overall, the results showed that managers felt that while they had to make greater efforts in their jobs, rewards were shrinking. While career progress was seen as an important job reward, opportunities for advancement were seen as limited. Finally, the survey showed that many managers were no longer putting their careers at the top of their priority lists; the job and its pay were seen by many as just a source of income in order to pursue other, personal interests.

### Culture and Management Strategies

Definitions of culture contain many multiple points of view. In the *Dictionary of Education* (Good, 1973, p. 156), the term is defined as the "aggregate of social, ethical, intellectual, artistic, governmental, and industrial attainments characteristic of a group, state, or nation, and includes ideas, concepts, usages, institution associations and other objects." This definition gives the meanings of a collective process resulting from the interaction of an individual-social structure-environment.

Hatch (1973) puts forth an anthropological viewpoint of culture, meaning that culture includes any habits, customs, beliefs, and so forth that humans have gained as a result of being members of civilization or society. There is no distinction between

social organization and social institution in this definition. Tyler's concern is mainly with the ideological aspects.

Kroeger (1952) believed that culture consists of patterns, explicit and implicit, of and for behavior acquired and transmitted by symbols, constituting the distinctive achievement of human groups, including their embodiments in artifacts. In his studies he emphasizes the essential core of culture, consisting of traditional ideas, especially their attached values. In addition, Kroeger examines culture as behaviors and attitudes substantially sustained by its material aspects.

The theory of social structure mentioned by Hatch (1973) includes the concept of culture representing institutionalized and standardized modes of behavior and thought. Once more, culture is related to behavior.

Bullivant (1984), cited by MacPherson (1986), defined culture as an interdependent and patterned system of values, traditional and current public knowledge and conceptions, embodied in behaviors and artifacts, and transmitted to present and new members both symbolically and nonsymbolically, which a society has evolved historically. These are progressively modified and augmented to give meaning to, and to cope with, its definitions of present and future existential problems.

Time, man and environment are the key points in the different definitions analyzed. Further, culture and behavior are inextricably related. Any behavior observed in the individual is part of his cultural expression.

An organization's culture is defined by Goldhaber (1986) as "an organization's development of collectively held logics and legends about the organization's life and identity" (p. 80). Another way to explain culture is as a "body of solutions to problems which have worked for the organization" (Macpherson, 1986, p. 39). These solutions are taught to new members as the appropriate way to perceive, think about, and feel in relation to these problems (Goldhaber, 1986). The solutions come about from a system of shared values, philosophies, ideologies, beliefs, assumptions, expectations, and attitudes which produce behavioral norms (Goldhaber, 1986).

Badawy (1980) discusses the transfer of management techniques or strategies to other cultures. He suggests that before implementing any new management strategies (such as quality circle programs) in any organization, the culture of the organization and the culture of the society in which the organization is based, should be looked at and considered (Badawy, 1980).

Badawy (1980) pointed out the close relationship between management and culture. While basic principles of management theory are applicable in all cultures, Badawy found that cultural differences need to be taken into account in order to modify managerial attitudes and styles. Harris and Moran (1981) agree with Badawy's findings regarding the interrelationship between culture and management. They add that a culture's influence is both conscious and unconscious. Thus, there is a necessity to modify leadership roles and styles according to the accepted behavioral norms for a given society; this is vital in establishing effective management systems.

Gonzalez and McMillan (1961) suggested that when establishing programs to transplant managerial resources from Western nations to the less-developed countries, it is necessary to be aware of the cultural impediments to the applicability and utilization of Western management and leadership principles.

Culture should be considered in the planning process. In any organization, the elements that form its culture should be kept as main aspects in its innovations and reform.

Badawy (1980) discussed managerial function and the differences between the United States and Middle Eastern management. He believes those differences should be considered to insure a better chance of success when transferring Western technology to less-developed countries.

Ingle (1982), however, disagrees with Badawy, stating that Dr. Ishikawa, a well-known authority on quality circles from Japan, said that "quality circle activities are rapidly growing in many countries such as Taiwan, the United States, Mexico, Brazil, Thailand, Malaysia, The Netherlands, Belgium, Denmark, and the United Kingdom" (p. 59). Because quality circles seem to be gaining common acceptance all over the world, Ishikawa feels these activities have no "socioeconomic or culture limitations", and can, therefore, be implemented anywhere, in any culture, because they have "human benefit" (p. 59).

Cultural differences in different societies, as Badawy (1980) suggested, effect managerial strategies, processes and development--in other words, societal cultural

traits can affect the organization's culture, creating a need for the modification of management techniques adopted from other cultures.

Saudi Arabia, as a middle Eastern country, fits neither the Eastern nor Western molds of society. Therefore, in order to determine the possibilities of utilizing and adapting foreign management techniques in Saudi Arabian industries, it is necessary to first investigate possible obstacles in the social climate of Saudi Arabia.

In general, Arabs, no matter their country of origin, display certain common traits; they share the same language, the same religion (to a large extent), and the same historical and cultural heritage. Some scholars, such as Almaney (1981) also contend that Arabs share the same passions and temperament. However, differences do exist from region to region, and from country to country, and Saudi Arabia is no exception.

The indigenous population of Saudi Arabia is comprised of homogeneous, nomadic tribes (Ruch, 1989). While tribal affiliations have weakened in more modern times with the settlement of many nomadic tribes in and around cities, one's tribal membership is still of great importance and a matter of prestige and honor.

Today's average Saudi Arabian family is extensive, often including many generations living in the same household, or in several households close by each other. Next to Islam, the family is the strongest unifying force in Saudi Arabia (Ruch, 1989).

Authority in Saudi Arabian families extends in a patriarchal line; the father is the undisputed head of the family (Abbas, 1985). Since an individual is recognized



only through his membership in a family, personal or career choices are seen only as secondary in importance to what is best for the whole family (Abbas & Al-Shakhis, 1989).

Since family in Saudi Arabia takes precedence over the individual, the individual's first duty and obligation is to his family. Work, on the other hand, is seen only as a way to foster the family's interests and to improve prestige in the community (Abbas & Al-Shakhis, 1989). A family's image and prestige in the community increases if members of that family work in respected positions. Respected positions are those that carry with them some authority and rank; Saudis feel manual or semi-skilled labor positions are non-status jobs that are better left for foreigners to fill.

In work, social and family structure are reflected. Workers believe that their leaders should be strong, and willing to force their will on the organizations they work for (Abbas, 1985). Just as the image of an "ideal" father, a respected manager is one who builds a reputation of being "honest, wise, generous and committed to his extended family" (Abbas & Al-Shakhis, 1989, p. 143).

The power of the importance of family is also seen in the people's unwillingness to accept jobs that may separate an individual from his family. Al-Nimir and Palmer (1982) found that no incentives were high enough to persuade the Saudi public managers in their study to relocate away from relatives. Other organizational studies confirm these findings; for example, Abbas and Al-Shakhis (1989) found that economic incentives do not play a high role in work. Instead,

managers in their study were motivated more by social needs (family) than by money; meaningful work that gives them a sense of pride and which facilitates family interaction and social cohesiveness was found to be a more powerful incentive than money.

Further, Saudi managers do not equate economic incentives with worker satisfaction. Islam places a high value on loyalty to authority figures; the social structure is set up so that subordinates, whether in work or family life, obey and respect their elders, or their "authority" figures. Abbas (1985) found that the Saudi managers in his study were "conformists"--oriented toward duty, loyalty, and what they "should do." Thus, these managers valued loyalty, and equated loyalty to their employers with present and future rewards; materialistic rewards were seen as inappropriate, unless they are given almost as a "right of position." In fact, these managers recognized and respected seniority, rather than any sort of meritorious performance on the part of an individual.

These findings are confirmed by Ikhlas (1987), who found that managerial positions, especially in the Gulf region, are not usually occupied by experts and experienced people; rather, appointment to managerial positions depends upon two factors: (1) who you know, and (2) what you are--in other words, your connections to the informal groups within the organization (extended family members or close friends) and whether or not you are a native of Saudi Arabia (many authority positions are exclusively for nationals).

Both in the government and in the private sectors, kinship (tribal) relationships play a large role in the staffing and recruitment practices (Ikhlas, 1987). Whenever possible, businessmen or influential government employees will give jobs to their relatives or members of their tribe. Therefore, the employee's loyalty and job security depends upon his kinsmen who were instrumental in getting him the job in the first place, rather than to the organization for which he works.

While the newer urbanized society in Saudi Arabia has weakened tribal and kinship ties somewhat, it can be clearly seen that the tribal structure and the importance of family are interrelated in all aspects of the society, including work itself. The social fabric of Saudi Arabia closely interweaves religion, customs and traditions with family and tribal duties and obligations. Therefore, one cannot talk about one aspect of the society without interrelating it to every other aspect of the society.

As cultural factors, there are many myths and generalizations that develop among the business community toward specific cultures. Obviously, open communication and the importance of good personal relationships are the key to success in all cultural environments (Barratt, 1989). Muna (1980), as cited by Barratt (1989), has studied some key points about a typical Arab executive, including his relationship with the environment, how he makes decisions, handles conflict, and his leadership style:

1. There is a close relationship between the Arab executive and his environment. The Arab executive is looked on as a community and family leader.

There are numerous social pressures on him as a result of this role. He is consulted on all types of problems, even those far removed from his position. These demands are very time consuming.

2. With regard to decision making, the Arab executive is likely to consult with his subordinates, but will take responsibility for his decision himself, rather than arriving at it through consensus.

3. The Arab executive is likely to try to avoid conflict. If it is an issue which he favors, but which is opposed by his subordinates, he tends to impose his authority. If it is an issue favored by the subordinates, but opposed by the executive, he is likely to let the matter drop without taking action.

4. The Arab executive's style is very personal. He values loyalty over efficiency. Though some executives find the open door tradition consumes a great deal of time, they consider it worthwhile and unavoidable. Many executives tend to look on their employees as family, and will allow them to bypass the hierarchy in order to meet with them.

5. The Arab executive, contrary to popular belief, puts considerable value on the use of time. One of the things he admires most about Western or expatriate executives is the use of their time. He would like to encourage his own employees to make more productive use of their time (Muna, 1980, p. 29).

Muna (1980) also points out the many other difficulties Arab managers face, including, "the inadequacies of the economic and organizational infrastructure, i.e., bureaucracy which causes innumerable delays; the social pressures and the low level

of delegation." Thus, he states, "the interpersonal style of the managers requires a great deal of time to be spent on other than business matters" (p. 29).

Barratt (1989) supports Muna's comments, and went further in adding that the Arab executive does plan ahead and places emphasis on preventative maintenance. There are situations, however, which the Arab executive feels are beyond his control. These include political and economic issues, government rules and regulations, manpower labor shortages, and so forth.

The "typical" Arab executive that Muna (1980) and Barratt (1989) describe in their studies is the product of a very unique society in which the norms, customs and traditions have developed over centuries.

The Kingdom of Saudi Arabia only came into existence in 1932, under the leadership of the late King Ibn Saud, who managed to unite warring tribal factions in the region (Ruch, 1989). After World War II, vast oil reserves were opened, and revenues helped to begin the speedy process of modernization.

What King Ibn Saud had really set in motion was not just the speedy development of the country's infrastructure, thanks to oil revenues, but also rapid social changes. The discovery and exploitation of oil and oil-related products changed the face of the centuries-old Arabian society. The newly-formed oil industry, eventually led by ARAMCO (Arab-American Oil Company), needed local manpower. The need for workers led to the mass relocation of many from the rural areas into the newly-built urban centers where the factories were located (mostly in the Eastern Province) (Abbas & Al-Shakhis, 1989). What began as a largely tribal,

traditional society, gave way to a modern one in which people still try to hold on to their traditional values and customs; transforming some of them and abandoning others in an attempt to answer some of the dilemmas they found themselves facing in an urban setting.

A large foreign labor force was, and continues to be, imported, partly through necessity (because women cannot work with men) and partly to take over manual and semi-skilled jobs that Saudi men have found distasteful (Abbas & Al-Shakhis, 1989; Ikhlas, 1987). The influx of foreign workers is, by itself, another problem, as foreigners bring into Saudi Arabian society their own ideas and value systems, which often differ from the established status quo (Almaney, 1980). However, oil and its revenues also allowed for dramatic increases in the standard of living for the Saudi people (Ministry of Information, 1985).

To solve the problems associated with having a substantial foreign labor force in Saudi Arabia, and in order to prepare the indigenous population for further national development, the government of Saudi Arabia began the enormous task of educating the largely illiterate public in the late 1950s and the 1960s (Ministry of Information, 1985).

Education in Saudi Arabia is free for every citizen, including education at the university level. A large portion of the annual national budget goes toward building new, and improving existing facilities, and for training qualified teachers to staff these institutions. Education is overseen by the government, by the Ministry of Education, and programs are also available nationwide to educate the adult population. Further,

a large segment of Saudi students attend foreign universities and colleges all over the world, particularly in Western Europe and the United States, in order to complete their graduate studies.

The great emphasis the Saudi government puts on education has resulted in the substantial increase of literacy throughout the country, as well as a corresponding societal value; people, in general, value higher education--an opportunity and privilege not given to previous generations, and one which can lead to more prestige, status, and income-earning potential in the society (Almaney, 1980). A further incentive to seek higher education is also apparent; the shortage of well-trained and educated indigenous manpower in Saudi Arabia assures graduates of some position guaranteed by the government, and further increases chances of a career with some amount of authority and prestige. One drawback to the push by the government for students to complete their graduate studies abroad comes in the form of Westernized thinking and values replacing the old, traditional values of the Saudi Arabian society (Almaney, 1980).

Perhaps no other cultural factor is so important to investigate as the influence of religion in Saudi Arabia. Islam is a religion which encompasses a whole way of life; indeed, in Saudi Arabia, the birthplace of the Prophet Muhammed, Islam takes on special significance. All aspects of society and government are directed by Islamic principles. For example, the Constitution of Saudi Arabia is the Qur'an (the Holy Book of Islam), and the legal system is based on Shari'ah (Islamic laws). The government of Saudi Arabia takes seriously their responsibility to all Muslims to

safeguard the practice of Islam and the Holy sites (Mecca and Medina). Islam is both a religion and a total way of life for the people of Saudi Arabia (Almaney, 1980).

Historically, the rise of Islam in the seventh century A.D. combined certain existing customs and social practices in the region with aspects of both Christianity and Judaism. The nomadic Bedouins of the Arabian peninsula were drawn to Islam because of its ability to blend Bedouin values with the religion of monotheism (Almaney, 1980). These cultural traits were then spread throughout most of the known world at the time, through military and diplomatic conquests; indeed, the Islamic Empire stretched from Africa to China, and north to southern Europe at one time. The conquered peoples eventually adopted not only Islam, but also the language, customs, and manners of thinking of the Bedouins of the Arabian peninsula (Almaney, 1980).

Bedouin cultural ideals, such as hospitality, generosity, chivalry, bravery, and defiance (or revenge), became deeply ingrained with Islam, and these cultural patterns have survived almost intact until today in Saudi Arabia. The Bedouins are seen as the most "pure" Arabs, and they play a large role in influencing the modern society of Saudi Arabia (Almaney, 1980).

The preceding pages have given just a general overview of the unique culture of Saudi Arabia. But, enough has been discussed to reveal possible social obstacles to the adaptation of foreign management techniques into Saudi Arabian industries. Because Saudi Arabia is steeped in social and religious traditions that have not changed for centuries, it is important for those trying to upgrade industry to realize



that new and different ways of doing things may not be readily accepted. It will take time, patience, and understanding for changes to be successful.

## **CHAPTER III**

### **METHODOLOGY AND RESEARCH DESIGN**

The purpose of this study was to determine to what degree Western education and degree of participation in quality circles programs by employees working in Saudi Arabian industries might have an effect on employee job satisfaction.

This chapter presents a detailed description of the study and a discussion of methods and procedures used to test the hypotheses. The primary aspects of this chapter are: (a) research questions, (b) the independent variables, (c) the dependent variable, (d) instrumentation, (e) the company, (f) quality circles, (g) sample, (h) data collection procedures, and (i) data analysis.

#### **Research Questions**

The main research questions investigated in this study are:

1. Is there a significant difference between employees' participation in quality circle programs, and their type of education: Saudi Arabian Western-educated or Saudi Arabian-educated?
2. Is there a significant relationship between employees' job satisfaction and:
  - a. their type of education: Saudi Arabian Western-educated or Saudi Arabian-educated.
  - b. their degree of participation in quality circles: high or low.

c. Are there significant interaction effects among these variables?

### Independent Variables

There were two independent variables in this study. The first was the type of education: Saudi Arabian Western-educated and Saudi Arabian-educated. Saudi Arabian Western-educated employees are those who have been exposed to Western culture for a prolonged period, through education abroad (in the U.S. or Western Europe). Saudi Arabian-educated employees are those who have not been exposed to Western education; that is, they were educated within Saudi Arabia.

The second independent variable was the degree of employee participation and involvement in quality circles meetings. Quality Circles as defined by Marks (1986), are small groups of people who perform similar work, who meet voluntarily on a regular basis (usually once a week), to analyze work-related problems and propose solutions, with management support.

### Dependent Variable

The dependent variable for this study was the employees' degree of job satisfaction. For this study, job satisfaction was defined as how much one's work coincides with the source of satisfaction (i.e., does the individual derive most satisfaction with the workgroup, supervisor, job, organization, pay, promotion, and future) that fulfill desirable expectations (Abbas, 1982).

### Description of the Instrument

The Questionnaire of Participation and Satisfaction (QPS) instrument was used in this study; it has three parts, consisting of 20 items. The first part, items 1–4 were designed to collect demographic data on respondents': (a) age, (b) earned degrees, (c) where the highest degree was earned, and (d) years of experience. The demographic items allowed for a description of the population participating in the study.

The second part, items 5–13, was developed to measure the degree of employees' participation in quality circles. These items were constructed primarily from items suggested by the literature regarding individual participation and involvement in quality circles meetings. Item 5 asks about employees' attendance at these meetings. Items 6, 7, and 8 were developed in accordance with the work of Townsend and Geghardt (1986), which suggests that quality is everybody's concern. Therefore, item 6 asks about encouraging co-workers to attend quality circle meetings. Item 7 asks how often the employee participates by making suggestions, and item 8 asks the employee if he misses a meeting, does he try to find out what was discussed. According to Ingle and Ingle (1983), participation of employees and their input in these meetings help employees to understand each other. Items 9, 10, and 11 are based on the idea that when employees are the ones to suggest the solutions and changes, they become very committed to them when these solutions are implemented (Gibson, 1983; Maretz, 1983). Further, Crocker (1984) and Gryna

(1981) explain reasons behind quality circles' success in Japan, as opposed to America, when they state that it is commitment to quality circles that has accomplished great success in Japan and has boosted their economy. These items were used to measure the degree (high or low) of the individual's participation and involvement in quality circles programs. For example, item 9 asked the employee to rate how beneficial quality circle meetings are to the work unit. Item 10 asks the employee how committed he is to the results from these meetings. Finally, item 11 asked the employee how confident he feels in the success of these meetings.

Items 12 and 13 were suggested by the expert review panel chosen to evaluate the questionnaire. Item 12 addressed communication improvements through quality circle meetings. Item 13 asked the employee to rate management's understanding of employees' concerns and problems after quality circle programs are put in place.

The response format for part 2 of the questionnaire was Likert-type, with three choices of low, middle, and high. Scoring weights for these choices were 1, 2, and 3 respectively. The participation score is determined by adding the weights for all items related to the variable.

The third part, items 14–20, was taken from Abbas (1985). These items measured the employees' degree of job satisfaction. These items were developed (by Abbas, 1985) using a Likert-type scale (1=very dissatisfied, 2=somewhat dissatisfied, 3=neutral, 4=fairly satisfied, 5=very satisfied). Items 14, 15, and 16 asked the employee how he would rate his satisfaction with persons in his workgroup (14), his supervisor (15), and his job (16). Item 17 asked for the employee's overall

satisfaction with the organization. Item 18 deals with pay and satisfaction. Items 19 and 20 asked the employee to rate the level of satisfaction he felt for his progress in the company up to this point, and for the future, respectively.

### Expert Review

To establish validity for items 5–13 in part 2 of the QPS, an expert review panel was used. The questionnaire was reviewed by three experts, selected on the basis of their expertise and experience in quality circles work. The panel was composed of (a) a management instructor, (b) an industrial management instructor, and (c) a manager in the production department of SABIC. They submitted their judgments on the content and structure of each item in the instrument. In addition to reviewing the questionnaire, the panel members were asked to add suggestions or comments concerning additions, deletions, or technical changes.

A cover letter (see Appendix B) attached to the evaluation sheet accompanied the questionnaire materials mailed to each reviewer. It expresses appreciation for their willingness to participate in the study and asked that the evaluation sheets be returned within three days.

Items were rated based on the following criteria: (a) essential, (b) important, but not essential, and (c) not important. The items rated as essential or important by two out of three experts were retained in the questionnaire. The results of the validity process, according to the importance of the items expressed by the experts, were summarized. Items 1, 3, 5, and 6 were rated as essential by all three experts. Items

2, and 4 were rated by one expert as essential and rated as important by the other two; and Item 7 was rated by the three experts as important. In addition, two of the panel members have suggested adding two questions: (1) regarding the improvement of communication, and (2) regarding management's understanding of employees' concerns and problems. All the seven items described above plus the two additional items that were suggested were used to measure the employees' degree of participation in quality circles programs.

### Field Testing

A pilot test was necessary to establish the reliability of the participation items in part 2 of the QPS. The researcher contacted a local company currently using quality circles programs in its production department. An American company was chosen because of the difficulty (i.e., time and distance) of conducting a pilot study in Saudi Arabia. However, the researcher believes the pilot test is reliable for use in Saudi Arabia because quality circle programs can be implemented in any culture, despite differences, according to Ingle (1982). After discussing the purpose of the research's study, the manager agreed to pilot test the instrument on September, 30, 1991. The manager administered the instrument at the company cafeteria, during lunch time, to 30 employees randomly selected. They were asked to respond to the questionnaire after explaining the importance of their participation in the study. They were assured of anonymity. The pilot test was conducted without problems.

The reliability for this part of the instrument was determined by use of the Cronbach alpha Coefficient calculated using the reliability program of the Statistical Package for the Social Sciences (Norusis, 1988). The variable, degree of participation in quality circles, demonstrated an alpha coefficient of .85. Evidence of sufficient reliability of this part of the instrument was established. No negative item correlation among the items was found.

The participation and demographic items were translated into the Arabic language using the back-translation method (Abbas, 1982). It was first translated from English into Arabic. The Arabic version was then translated back into English by a bilingual translator who works for the Saudi government in Washington, to assure the integrity of the translation. The final version was reviewed by an Arabian teacher who has worked for 15 years as an English instructor at Western Michigan University. This instructor teaches English classes as a second language.

The third part, items 14–20, were developed to measure the employees' job satisfaction, the dependent variable in this study as taken from Abbas (1985). The instrument aimed to measure each of three hierarchical groups (middle management, second line supervision, first line supervision): organizational climate, supervision leadership, group process, and satisfaction. The reliability for this instrument was not reported, but is considered to be one of the best instrument to measure employee attitudes on these topics (Bowers & Franklin, 1977; Housser, Pecorella & Wissler, 1977; Taylor & Bowers, 1972).



Part three of the QPS consisted of seven subscales that measured satisfaction with work group, supervisors, pay, organization, promotion, and chance for advancement in the organization. A five-point likert-type scale was used for these items, ranging from very dissatisfied to very satisfied. The survey was conducted in English and Arabic (see Appendices C and D). The questionnaire was developed using the back-translation method. Abbas (1985) rendered it from English into Arabic. The Arabic version was then translated back into English By a bilingual translator who was educated in Canada. The difference between the original and the new version was reconciled. The final version was reviewed by a top executive who had worked for several years as a manager in London. The response rate was 57 percent. Permission for the use of the instrument was granted (see Appendix A).

### The Company

The company which served as field site for this study was one company of the Saudi Arabian Basic Industries Corporation (SABIC), a Saudi Arabian joint stock company. SABIC was established by Royal Decree in 1976 to expand the industrial base of the Kingdom of Saudi Arabia beyond oil (Ministry of Planning, 1983). SABIC is comprised of 15 petrochemical, plastics, fertilizer, and steel manufacturing industries. Most of SABIC's industries were established as joint venture partnerships in tandem with leading companies of the United States, the Far East, and Europe. SABIC is, today, a worldwide supplier in the petrochemicals industry (SABIC, 1988).

SABIC companies, as all business organizations in Saudi Arabia, employ only male workers. This is in keeping with religious and social customs forbidding interaction between males and females in the work environment.

Quality circles was one of many management strategies adopted from American industries to Saudi Arabian industries. Quality circles, as practiced in U.S. companies, were adopted by SABIC in 1989. Dr. Wajeeh Al-Ali (1987) translated the quality circle concept into the Arabic language to serve as a framework to help implement quality circles in the Arabic world (see Appendix E).

### Sample

Employees within the production department of SABIC's company were the target population of this study. Three-hundred male employees represented the accessible population from which the sample was drawn. The production department was selected because: (a) it had the largest number of Saudi-native employees, and (b) it was the first to implement quality circle programs. The sample consisted of 150 full-time production employees. The following criteria were used to select the sample: (a) full-time employees, (b) working week of 40 hours, (c) at least three years at the same job, and (d) Saudi-native employees educated either in the West or in Saudi Arabia. The following paragraphs explain why these criteria were used.

First, the SABIC company employs males exclusively. Religious traditions prohibit women from sharing the same work environment with men. Regarding the second criterion, the organizational structure and regulations have established 40 hours

as working time per week. The third criterion was based on exposure to quality circle programs in the company. The quality circle programs were developed and executed in 1989 (Elmuti, 1989) involving all departments. The sample population of employees selected for this study have all been exposed to the design, organization, and implementation of the quality circles program in the SABIC company.

The fourth criteria statement for the sample clearly restricts the population to which the research findings may be generalized. Only employees born in Saudi Arabia were part of this study. They are part of the culture and, even more, are more identified with Saudi organizational behaviors and climate. It is important to indicate that Saudi companies do not have part-time employees. Therefore, all employees work the same hours. This fact encourages the ecological generalization of the findings.

A random sample of 150 full-time SABIC employees from the Department of Production within the company was used. The distribution was: 75 employees who are Saudi Arabian Western-educated and 75 employees who are Saudi Arabian-educated. The selection procedures involved:

1. A list of all employees from the Department of Production was provided by the personnel department. The list described (a) the number of years each employee had been working in the Department of Production, (b) the employee's nationality, and (c) the colleges that the employees attended.

2. Employees who had less than three years working time were excluded from the list.

3. A total of 75 full-time employees were assigned from both groups (Western educated and Arabian educated) using a computerized program called BASIC. It provided 150 random numbers. Each number represents an individual from the list of Saudi employees in the Production department at SABIC.

4. The employees' names were alphabetically organized. Each individual was assigned a matching number.

5. From the list, 150 random numbers were drawn. The numbers matched with the employee's name were automatically selected.

#### Data Collection Procedures

##### Permission to Conduct the Study

The company was visited (by the researcher) and an interview was held with President of the company to request permission to conduct the study, and solicit cooperation during the data collection process; subsequently, permission was granted. At the request of the researcher an assistant to be in charge of the administration of the QPS was appointed by the President. This assistant was the manager from the safety department at the company. The manager was instructed by the researcher on the data collection procedures.

##### Contact With Participants

After the Human Subjects Institutional Review Board at Western Michigan University approved the implementation of the research (see Appendix F), and the

participating employees had been selected, initial contact with the participants was by an appointed manager. It was anticipated that having the manager of the safety department administer the survey instrument would result in a higher response rate and would also overcome problems associated with mail service. The participants received a letter (see appendix C) indicating that they had been randomly selected to participate in the study. The letter explained the purpose of the study and the time period needed to collect the data. Confidentiality of information provided by the participants in the study was promised.

After the return of survey instruments, the researcher created data files using the computer system at Western Michigan University. Data files were constructed and statistical computations completed using .SPSSX (Norusis, 1988).

### Data Analysis

The individual respondent scores obtained on the instrument measuring employee job satisfaction (dependent variable of this study) were used as the unit of analysis. In this study the research questions investigated were:

1. Is there a significant difference between employees participation in quality circle program and their type of education: Saudi Arabian Western-educated or Saudi Arabian-educated?
2. Is there a significant relationship between employees' job satisfaction and:
  - a. their type of education: Saudi Arabian Western-educated or Saudi Arabian-educated.

- b. their degree of participation in quality circles: high or low.
- c. are there significant interaction effects among these variables?

The null-hypotheses tested were as follow:

#### **Hypothesis #1**

There is no difference among the mean score of employees participation in Quality Circles, when they are Saudi Arabian Western-educated or Saudi Arabian-educated.

#### **Hypothesis #2**

There is no difference among the mean score of employees job satisfaction, when they are Saudi Arabian Western-educated or Saudi Arabian-educated.

#### **Hypothesis #3**

There is no difference among the mean score of employees job satisfaction, when they have a high or low degree of participation in Quality Circles.

#### **Hypothesis #4**

There is no difference among the mean score of job satisfaction of Saudi Arabian Western-educated and Saudi Arabian-educated employees who have high participation in quality circles, and the mean score of job satisfaction of Saudi Arabian

Western-educated and Saudi Arabian-educated employees who have low participation in quality circles.

The  $t$  test of independent means, and two way analysis of variance for independent means were used to test the null hypotheses at .05 level of significance. The results were computed by the Academic Computing Services at the computer facilities at Western Michigan University.

### Summary

In Chapter III, the purpose of the study, the research question, the independent variables, the dependent variable, the instrumentation, the company, sample, the data collection procedures and the data analysis were examined in relation to the problem stated for this research study. Chapter IV provides the results of the study.

## CHAPTER IV

### RESULTS

This chapter will discuss the findings of the research process as described in Chapter III. First, the respondents and their response rate will be discussed. Second, data analysis, and the findings will be summarized.

The purpose of this study was to investigate to what degree Western education and degree of participation in quality circles program of employees working in Saudi Arabian industries have an effect on employees' job satisfaction.

#### Respondents

##### Response Rate

The Questionnaire of Participation and Satisfaction (QPS) was distributed to 150 full-time employees working in the department of production at one company of Saudi Arabia Basic Industrial Corporation (SABIC). To overcome problems associated with mail service due to the distance, and to minimize nonresponse rate, the instrument was administered by the manager of the safety department within the company, who avoided personal contact with participating subjects in order to avoid bias in the responses. Since this manager did not work in the production department,



he did not know the subjects. This helped to insure the subjects would answer more openly, without fear of being identified.

Two weeks following the distribution of the instrument, 95 questionnaires were returned, a 63% return. After 4 weeks, a total of 141 questionnaires had been received, a 94% return. Nine individuals of the sample did not return the questionnaires and were contacted to determine a reason for nonresponse. Personal and telephone inquiries were made. Two of the nine nonrespondents reported not having time available to fill out the questionnaires. The remaining seven subsequently returned the questionnaires. The total number of respondents was 148, a 98% return rate. Of these, 13 of the participants (8.6%) completed the instrument in the English version and 135 (90%) had completed the instrument in the Arabic version.

#### Characteristics of the Participants

Demographic data were collected on four characteristics of the subjects who completed the (QPS) instrument: (1) age, (2) degree level completed, (3) location of highest degree earned (Saudi Arabia, United States, or Europe), and (4) years of experience. The demographic characteristics of the subjects are reported for descriptive purposes to alert readers to their possible influence on the findings of the study.

These data are summarized below in Tables 1–4 for the 148 subjects who completed the survey.

Table 1  
Age of Respondents

Age	N	%
Less than 25	23	16
26-35	42	28
36-45	46	31
46-55	37	25
Totals	148	100

As Table 1 indicates, the distribution of respondents by age is approximately normal. The highest percentage of respondents (31%) are between the age of 36 and 45 years. The lowest number of respondents (16%) are less than 25 years of age.

Table 2  
Highest Degree Completed by Respondents

Highest Degree Completed	N	%
Baccalaureate Degree	82	55
Master's Degree	38	26
Associate Degree	14	10
High School Degree	11	7
Doctoral Degree	3	2
Totals	148	100

As shown in Table 2, just over one-half of the respondents (55%) have completed their Baccalaureate degree; 26% have completed their Master's degree;

10% have completed an Associate degree; 7% have completed their High School degree; and, 2% have completed their Doctoral degree.

Table 3  
Location of Highest Degree Earned

Where Highest Degree Was Earned	N	%
Saudi Arabia	74	50
United States	61	41
Europe	13	9
Totals	148	100

As Table 3 indicates, approximately equal numbers of the respondents earned their highest degrees in Saudi Arabia (50%) and in the United States (41%). Only 9% of the respondents earned their highest degree in Europe. Considering both the United States and Europe provide educational experiences in a Western culture, the combining of these two locations results in equal percentages of respondents being Saudi Arabian (50%) and Western educated (50%).

Table 4  
Number of Years Experience at SABIC of Respondents

Years of Experience	N	%
More than 10 years	36	24
7-10	63	43
3-6	49	33
Less than 3 years	0	0
Totals	148	100

Table 4 indicates that 43% of the respondents have worked at SABIC for 7 to 10 years; 33% of the respondents have 3 to 6 years of experience at SABIC, while 24% of the respondents have worked for SABIC for more than 10 years. None of the respondents had less than 3 years of experience.

## Data Analysis and Findings

### Research Question 1

Is there a significant difference between employees' participation in quality circle program when they are Saudi Arabian Western-educated or Saudi Arabian-educated?

### Hypothesis 1

There is no difference among the mean scores of employees' participation in quality circle when they are Saudi Arabian Western-educated or Saudi Arabian-educated ( $p < .05$ ).

In order to test this hypothesis, the sum score of items 5–13 from the QPS which measured employees' degree of participation in quality circles were analyzed using the  $t$  test. The results are presented in Table 5. In this table, the means, standard deviation, and the  $t$ -test findings for the variable type of education (Saudi Arabian Western-educated/Saudi Arabian-educated) are described in terms of the degree of participation in quality circle programs.

**Table 5**  
**Means, Standard Deviations, and t-test Results for**  
**the Variable Type of Education by Degree of**  
**Participation in Quality Circle**

Variable	N	Mean	SD	df	t	2-tail Prob.
Saudi Arabian Western-educated	74	21.8	5.3	138.3	4.8	.0001
Saudi Arabian-educated	74	17.1	6.7			
Grand Mean	148	19.5				

These findings show that employees who have been exposed to Western education had significantly ( $p < .0001$ ) higher mean scores than those who had been educated within Saudi Arabia. Consequently, the null hypothesis of no differences between employees' participation in quality circles, when they are Saudi Arabian Western-educated or Saudi Arabian-educated was rejected. Furthermore, the grand mean of participation was calculated at 19.5, which was in the moderate range.

### Research Question 2

Is there a significant relationship between employees' job satisfaction and:

- a. their type of education: Saudi Arabian Western-educated or Saudi Arabian-educated.
- b. their degree of participation in quality circles: high or low.

c. are there significant interaction effects among these variables?

### Hypothesis 2

There is no difference among the mean score of employees' job satisfaction, when they are Saudi Arabian Western-educated or Saudi Arabian-educated.

In order to test this hypothesis, the sum score of items 14–21 from the QPS which measured employees' job satisfaction, was used in a two-way ANOVA. The results show that (see Table 6):

Table 6  
Summary of ANOVA for Hypothesis 2: Job Satisfaction  
and Type of Education

Source	df	Ms	F	F <sub>pro</sub>
Education Type Groups	1	1747.30	33.89	.0001
Within Groups	144	51.56		

The null hypothesis of no differences in the mean score between employees' job satisfaction when they are Saudi Arabian Western-educated or Saudi Arabian-educated was rejected ( $p < .0001$ ).

### Hypothesis 3

There is no difference among the mean score of employees' job satisfaction when they have a high or low degree of participation in quality circles.

This hypothesis was tested using two-way ANOVA at .05 alpha level (see Table 7).

Table 7

Summary of ANOVA for Hypothesis 3: Job Satisfaction  
and Degree of Participation in Quality Circles

Source	df	Ms	F	E <sub>pro.</sub>
Quality Circles Groups	1	169.69	3.29	.072
Within Groups	144	51.56		

The null hypothesis of no differences in the mean scores between employees' job satisfaction when they have high degree or low degree of participation in quality circles was accepted at .072. The findings indicated no significant differences of employees' job satisfaction, when they have a high or low degree of participation in quality circles.

#### Hypothesis 4

There is no difference among the mean scores of job satisfaction of Saudi Arabian Western-educated and Saudi Arabian-educated employees who have high participation in quality circles, and the mean scores of job satisfaction of Saudi Arabian Western-educated and Saudi Arabian-educated employees who have low participation in quality circles.

This hypothesis was tested using two-way ANOVA (see Table 8).

Table 8

Summary of ANOVA for Hypothesis 4: Job Satisfaction  
and Type of Education and the Degree of  
Participation in Quality Circles

Source	df	Ms	F	F <sub>pro.</sub>
Type of Education by Quality Circles Groups	1	2.09	.04	.841
Within Groups	144	51.56		

The null hypothesis of no differences in the mean scores of job satisfaction of Saudi Arabian Western-educated and Saudi Arabian-educated employees who have higher participation in quality circles, and the mean scores of job satisfaction of Saudi Arabian Western-educated and Saudi Arabian-educated employees who have lower participation in quality circles was accepted. The findings indicated no significant differences were found.

Table 9 presents descriptive data concerning Hypotheses 2, 3, and 4. This table shows that Saudi Arabian Western-educated employees with high degree of participation in quality circles report higher job satisfaction than those employees who are Saudi Arabian Western-educated with low degree of participation in quality circles ( $26.09 > 23.93$ ). Regarding Saudi Arabian-educated, the findings show that Saudi Arabian-educated employees with high degree of participation in quality circles report higher job satisfaction than those employees who are Saudi Arabian-educated with low participation in quality circles ( $18.59 > 15.90$ ). Furthermore, the grand mean of job satisfaction was calculated at 21.39, which was in the moderate range.



Table 9  
Sample Size, Means, and Standard Deviations  
of Respondents by Groups: Job Satisfaction

Groups	N	Mean	SD
HQCs.WED	59	26.09	7.56
HQCs.AED	34	18.59	8.22
LQCs.WED	15	23.93	7.25
LQCs.AED	40	15.90	5.43
Grand Mean	148	21.39	

Note:

HQCs.WED = High participation in quality circles and Saudi Arabian Western-educated.

HQCs.AED = High participation in quality circles and Saudi Arabian-educated.

LQCs.WED = Low participation in quality circles and Saudi Arabian Western-educated.

LQCs.AED = Low participation in quality circles and Saudi Arabian-educated.

### Summary

In this chapter, the responses characteristics, the demographic characteristics of the subject, and data analysis and findings have been presented.

The  $t$  test and two-way analysis of variance (ANOVA) were used to test the four research hypotheses. The findings of this study show that the null hypothesis 1 was rejected. That is, employees who had been exposed to Western education had significantly higher mean scores than those who had been educated in Saudi Arabia. This finding indicates that Saudi Arabian Western-educated employees participated

in quality circle programs to a higher degree than their Saudi Arabian-educated counterparts.

Null hypothesis 2 was also rejected. That is, the analysis of the data found that job satisfaction was significantly higher for those employees who received their education outside of Saudi Arabia, in Western countries.

Hypothesis 3 was accepted. There were no significant differences between employees' job satisfaction levels as related to their degree of participation in quality circle programs. Employees who participated in quality circle programs to a high degree expressed no significantly higher levels of job satisfaction than employees who participated to a lesser degree in the quality circle programs. Finally, hypothesis 4 was also accepted. Job satisfaction levels were not considerably higher in employees participating to a high degree in quality circle programs, regardless of where their education was received. Employees educated in Saudi Arabia or in Western countries who participated to a lower degree in quality circle programs showed almost the same levels of job satisfaction as their co-workers who participated to a higher degree.

In Chapter V, a summary of the study, conclusions, and recommendations for further research are presented.

## CHAPTER V

### SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

#### Summary

The purpose of this study was to investigate to what degree Western education and Saudi Arabian employees' degree of participation in quality circles programs affects their job satisfaction. A review of the literature was conducted related to the variables. Research hypotheses were formulated expecting no significant differences among the mean scores. In Chapter III, methods and procedures used to test the four hypotheses were discussed, and in Chapter IV, the results were presented and discussed.

The design of the study involved the participation of 150 Saudi Arabian employees working in the production department of a Saudi Arabian Company. Ninety-eight percent of the sample population participated in this study. The validity and reliability of the instruments were reported. Standard conditions for administration and scoring were used and the alpha reliability coefficient obtained was .85.

In this research study, the independent variables were the type of employee education (Saudi Arabian Western-educated and Saudi Arabian-educated), and the degree of employee participation in quality circles programs (high or low). The

dependent variable was employee job satisfaction as measured by items 13–20 of the QPS, which was translated into Arabic language.

The  $t$  test and two-way analysis of variance (ANOVA) were used to test the four null hypotheses.

The following research questions were studied:

1. Is there a significant difference between employees' participation in quality circles programs, when they are Saudi Arabian Western-educated or Saudi Arabian-educated?

2. To what extent is there a significant relationship between employees' job satisfaction and:

- (a) their education: Western or Saudi Arabia;
- (b) their degree of participation in quality circles: high or low;
- (c) their education (Western or Saudi Arabian) and their degree of participation in quality circles: high or low.

In Chapter IV, the following four hypotheses, stated in null form, were tested:

1. There is no difference among the mean scores of employees' participation in Q.C., when they are Saudi Arabian Western-educated or Saudi Arabian-educated.

2. There is no difference among the mean scores of employees' job satisfaction, when they are Saudi Arabian Western-educated or Saudi Arabian-educated.

3. There is no difference among the mean scores of employees' job satisfaction, when they have a high or low degree of participation in quality circles.

4. There is no difference among the mean score of job satisfaction of Saudi Arabian Western-educated and Saudi Arabian-educated employees who have high participation in quality circles, and the mean scores of job satisfaction of Saudi Arabian Western-educated and Saudi Arabian-educated employees who have low participation in quality circles.

### Conclusions

Demographics of participants (e.g. age, highest degree completed, location of highest degree earned, and number of years experience in the company) were collected and reported for descriptive purposes to alert readers to their possible influence on the findings of the study. In addition, the survey was completed in English and Arabic, with the majority of subjects responding in the Arabic version (90%).

Null hypothesis 1 was rejected, as expected. Employees who had been exposed to a Western education showed significantly higher participation rates in the quality circle programs than their Saudi Arabian-educated co-workers. This conclusion may indicate that Saudi Arabians receiving their education abroad in Western countries have had more opportunity than their Saudi Arabian-educated counterparts to experience a greater variety of new ideas. Exposure to a variety of new ideas and ways of doing things makes these workers more open to giving different strategies, such as quality circle programs, an opportunity to succeed.

On the other hand, those employees who received their education in Saudi Arabia have had little exposure to management techniques other than the standard ones already in practice in Saudi Arabian industries. The centuries-old traditional culture of Saudi Arabia may be discouraging acceptance of changes in business, as it does in social life. The traditional role of managers as authoritarians who make all decisions perhaps discourages more traditional workers from trying participatory management techniques, such as quality circles. Workers not exposed previously to shared decision making, as in quality circles, may exhibit a certain amount of suspicion and distrust, and prefer not to accept any responsibility for making group decisions previously made by one authoritarian manager.

The rejection of null hypothesis 2 presents more questions than answers. Results of the study indicate that employees who have received a Western education express a higher level of general job satisfaction than those employees educated in Saudi Arabia. However, it is the opinion of this researcher that further studies are needed before reliable conclusions can be reached. Unaccounted for variables involving the subjects themselves may be more responsible for the results than the type of education the respondents actually received. For example, stereotypes exist in Saudi Arabia about people who strive to get a Western education. There is some degree of status and prestige afforded to those who get their education in the West. A more comprehensive study involving a much larger subject base could be enlightening to educators in both Saudi Arabia and in the United States.

Hypothesis 3 asked if employees' job satisfaction levels were related to their degree of participation in quality circle programs. The findings showed that there were no significant differences in job satisfaction levels, whether participation of employees in quality circle programs was high or low. This finding indicates that other factors may be contributing to job satisfaction levels of employees besides participation in quality circle programs. For example, factors not related to the job itself, but to the job environment. These companies are located in industrial cities—built specifically for the industries. The workers live in quarters set up by the company, but workers are deprived of normal family and social life. Further research concentrating wholly on factors related to job satisfaction is probably warranted.

The acceptance of hypothesis 4 suggests the data reveals that job satisfaction levels of employees were not considerably higher, whether they participated to a high degree in quality circle programs or not, and regardless of where they received their education, in Saudi Arabia or in Western countries. The findings clearly indicate that participation levels in quality circle programs did not contribute significantly to employee job satisfaction. Further, the findings contradict the idea that Saudi Arabian Western-educated employees and Saudi Arabian-educated employees will show different levels of job satisfaction, depending on their level of participation in quality circle programs. Therefore, there is no interaction between employees' type of education (Western or Arabian) and their degree of participation in quality circle programs, when it comes to their level of job satisfaction. The data, then, reveals that

other factors could be responsible for differences in job satisfaction levels of employees.

### **Discussion**

This study's investigation raised the interest of the researcher particularly in two areas. The first concerns the relationship between participation in quality circles and job satisfaction. This study clearly demonstrates that participation in quality circles is not related to levels of job satisfaction. This finding is not consistent with the majority of previous studies which show a positive relationship between participation in quality circles and job satisfaction (Dale, 1985; Gupta & Smith, 1989; Mitchell, 1986; Putti & Cheong, 1990; Tausky & Chelte, 1988).

Further, two studies in particular dealt with the implementation of quality circles in Saudi Arabia. The first study (Elmuti & Kathawala, 1990) involved the implementation of computer-aided quality circles in a multi-national firm in Saudi Arabia. Its results showed that these programs had a positive and significant impact on job satisfaction, as well as on the productivity of employees. Another study of a second company using quality circles in Saudi Arabia also reported a significant impact on the job satisfaction of both participants and persons affected by the programs (Elmuti, 1989).

Still, other researchers question such a direct relationship. For example, Abbott (1987) challenged the assumption that a simplistic relationship between quality circles and job satisfaction exists. His study of an electronics firm suggests that other



factors besides the presence of quality circles (e.g., the work environment, recognition, etc.) may also play a role on the levels of job satisfaction in employees. A study by Lincoln (1989), comparing employees in factories in Japan to employees in factories in the United States, found that the implementation of quality circles in the Japanese factories produced greater employee commitment, but less satisfaction, when compared to their American counterparts. Lincoln attributed findings of higher commitment but lower job satisfaction in Japanese workers to seniority systems and strong social bonds. A third study by Verney, Ackelsberg and Voloviak (1989) produced findings that quality circles did not improve satisfaction with the job itself, but did improve workers' perceptions of how management treated them.

These studies indicate that quality circles, by itself, may not always be the answer to producing higher levels of job satisfaction. Many other factors may also help determine higher satisfaction in workers. For example, in the present study, the finding of no relationship between quality circles and job satisfaction may be due, in part, to the way in which quality circles are introduced and implemented in Saudi Arabia and in SABIC. There is a difference of opinion in the literature regarding the implementation of quality circles, or any foreign management techniques cross-culturally. Some scholars feel quality circles transcend cultural differences, while others feel strongly that such strategies must be modified to fit each culture (Badawy, 1980; Gonzalez & McMillan, 1961; Harris & Moran, 1981; Ingle, 1982). It is the opinion of this researcher, based on the results of this study, that Saudi Arabia presents special problems when implementing foreign management techniques and

strategies, due to the unique traditional culture, social customs and the religion of Islam. Because of these special circumstances, foreign ideas of any sort will be difficult to introduce in Saudi Arabia.

When Saudi Arabia began to modernize, build its infrastructure, and develop its industries, the government relied heavily on input from Western experts; notably, American experts. Most Third World developing nations borrow models of development from already established countries, such as from the United States, when they begin to modernize. However, in spite of the full utilization of new technologies, consultation and advice from Western specialists, and a massive effort to train and educate the indigenous population, Saudi Arabian industries are still facing many problems, some of which have already been discussed in this study (i.e., low levels of job satisfaction in employees, little worker loyalty or commitment toward employers, low production and quality, high turnover rates, and high absenteeism). Up to this point, the reaction has been to keep introducing Western management techniques and strategies to Saudi Arabian industries that have been shown to be effective in other developing countries; this, rather than to examine other reasons why Western models are not working in Saudi Arabian industries.

Because Saudi Arabia is a unique country with a very traditional culture, social customs and religion (Islam) that have not changed for centuries, introducing and implementing any foreign ideas has been difficult, at best. Borrowing techniques and strategies from the Western model is not the real problem. However, relying on Western experts to implement such programs may be problematic. Western experts

employed by the Saudi government, and working for such industries as SABIC, are given just a brief overview of the culture, customs and religion of Saudi Arabia--just enough information for them to live for an extended period of time in the country without creating difficulties for themselves or others. Moreover, Westerners working in Saudi Arabia are segregated into communities away from common Saudi Arabian citizens. As a result, Westerners have very little contact with the general population, except for limited exposure from co-workers. Such limited exposure prevents Western experts from gaining any real understanding of the Saudi Arabian people. Further, when programs are advised for the industries by the Western experts, they are implemented in whole, without needs assessments, pilot studies, or any other research being conducted first. The general feeling seems to be that if the programs have worked elsewhere, they will work in Saudi Arabia.

But, since Western experts have very limited knowledge of the culture of Saudi Arabia, many such programs are bound to fail. There is a real need for employing Saudi Arabian nationals who have been educated in the West to act as advisors and consultants to Saudi Arabian industries. Being Saudi Arabian first, and being educated in the West second, give such persons an advantage Western experts do not possess--a good understanding of both the Saudi Arabian and American cultures, the differences between them, and a better understanding of the obstacles present in introducing the Western model to Saudi Arabian society.

Saudi Arabia is different from most Third World developing countries in that, thanks to the abundance of oil reserves and the world's dependency on fossil fuels, the

Saudi government has had a virtually unlimited amount of capital to invest in the modernization process, as well as to create and finance a social welfare system for its people that is unparalleled elsewhere. One of the specific problems inherent in imposing a Western model of development on Saudi Arabian industries is related to the fact that the Saudi Arabian government has been able to economically provide for citizens by guaranteeing them jobs. Therefore, factors such as job satisfaction, loyalty and commitment are not tied to either financial concerns, or to concern of job loss. In fact, material wealth is not of great concern for Saudi Arabians; instead, hospitality, generosity, honesty and courage are upheld as values in the society, in large part because these are values and customs associated with the religion of Islam.

Moreover, the economy of Saudi Arabia is not privatized, as in the United States. Industries are protected through subsidies from the government of Saudi Arabia. Products produced by industries are required to be used by other companies. For example, steel produced by one company must be used by construction companies for their projects under contract with the government; concrete made by another industries is used in building and road construction, and so forth. With heavy government subsidizing, there is no competition in the industrial sector and no incentives for production or quality improvements. In such an atmosphere, it is highly questionable whether Western techniques and strategies such as quality circles are actually beneficial to Saudi Arabian industries. Instead, research should concentrate on discovering first the factors related to what motivates higher job satisfaction in Saudi Arabian workers.

The way in which industries are set up in Saudi Arabia also may factor into low job satisfaction, high turnover rates, absenteeism, and so forth. When the government began planning the creation of the industrial sector, the decision was made to locate industries away from already established towns and cities. Actual industrial cities, such as Al-Jubail where the companies of SABIC are located, were built from scratch. Housing units specifically for workers were built around the industrial companies. But workers applying for jobs in the companies elected not to bring their families and relocate in the new cities, because this did not appeal to the families. The families preferred to stay in the villages, towns, and cities where they were already established, close to their relatives and tribal affiliations. The men who work for the industries, then, stay in the quarters provided for them by the companies during the workweek, and then travel home for the weekend to be with their families. Some live within an hour's drive of the industrial cities, while others may have to travel a greater distance to get home. Since the family is the strongest unifying force in Saudi Arabia, next to Islam, being separated from the family is difficult for most Saudi Arabians. The resulting stress on normal family life, then, plays a role in the high turnover rates, absenteeism, and low satisfaction levels experienced in industries in Saudi Arabia.

A second area of interest to the researcher are the findings of this study on the difference in job satisfaction levels of employees educated in the West and those educated within Saudi Arabia. The findings indicate that those Saudi Arabian SABIC employees educated in Western nations report higher job satisfaction levels than their

Saudi Arabian–educated co–workers. These differences in job satisfaction levels, however, could be accounted for in that persons educated in Saudi Arabia are different from persons pursuing their education in the West to begin with. There is a common perception among Saudi Arabians in general that anything Western is somehow better. Specifically, people who seek higher education in the West are special. They are afforded a greater degree of status and prestige for getting their education in the West, and this factor may carry over into the job market after graduation. One reason this stereotype of Western education being somehow superior comes from the fact that it was not until the 1970s that the Saudi Arabian government was able to develop university programs and curricula comparable to universities in Western nations. Therefore, people still perceive Western educational institutions as superior to those in Saudi Arabia, even though this is no longer true. This perception, however, could be contributing to the higher degree of job satisfaction felt by Saudi Arabian Western–educated SABIC employees in this study.

### Recommendations

Any recommendations based on the findings and conclusions of this study must be considered within the understanding that the subjects who provided the data of this study represented only employees from the production department of one company of Saudi Arabian Basic Industrial Corporation (SABIC). Further, the ratio of Saudi Arabian Western–educated versus Saudi Arabian–educated employees may vary in different departments, companies, and Saudi Arabian industries. The findings

and conclusions of this study may or may not be generalizable to the Saudi Arabian Basic Industrial Corporation (SABIC).

Despite the limitation of this study, the findings and conclusions seem to warrant the following recommendations:

1. There is a general and genuine need, in Saudi Arabia and elsewhere, for organizations to continually re-examine their implementation of management techniques and strategies, in reference to the environments in which they operate and the clientele which they serve. Because SABIC is a jointly-owned concern of both the Saudi Arabian government and Western private investors, intensive cross-cultural research may be useful in determining how foreign techniques and strategies can be adopted and/or modified successfully, given the unique culture of Saudi Arabia.

2. Before any changes in management techniques and/or strategies are implemented in Saudi Arabian industries, needs assessments should be conducted in order to determine whether problems exist, the causes of such problems, and the best solutions to fixing such problems.

3. SABIC may wish to explore the feasibility of implementing training and seminar programs for Saudi Arabian-educated employees, pertaining to the workings of, and reasons behind, the desire to adapt foreign management techniques and strategies in the industry.

4. Currently, the government of Saudi Arabia and SABIC sponsor some employees for higher education abroad in Western countries. A more cost-effective solution to educating employees in Western management strategies abroad could

involve an exchange program between business and management instructors from Saudi Arabia and the United States (or Europe). An exchange program of this type would enable Saudi schools to implement specific curriculum on Western management techniques and strategies, eventually eliminating the need of expensive training and education abroad for individual employees.

5. This study should be replicated with subjects selected from, or inclusive of, all departments of this company, and from more than one company of the Saudi Arabian Basic Industrial Corporation (SABIC).

6. Further research studies should be considered on the subject of factors related to job satisfaction in Saudi Arabian workers.



**Appendix A**  
**Permission to Use Satisfaction Instrument**

Department of Management  
Indiana University of Pennsylvania  
Indiana, PA 15705  
Tel. (412) 357-5759  
Fax (412) 357-5743

July 13, 1991

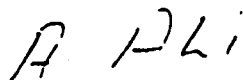
Mr. Abdulrahman Al-Selaim  
P.O. Box 19106  
Kalamazoo, MI 49019

Dear Mr. Al-Selaim:

Enclosed please find a copy of the Arabic version of Work Satisfaction (survey of organization - UM). I translated it to Arabic in 1982. Also please find the instrument for decision-making styles for use in your research. Along with them, I am including some literature related to management and work satisfaction in the Arab world. I hope you find them useful in conducting your literature survey.

If you need more information, please let me know. Good luck on your research and feel free to contact me when you need assistance.

Sincerely,



Abbas J. Ali, Ph.D.  
Professor of Business Strategy  
and International Management

## **Appendix B**

### **Cover Letter and the Expert Review**

September 14, 1991

TO:

DEPARTMENT:

I am in the process of developing an instrument to categorize employees' degree of participation in quality circle programs in a Saudi Arabian Industrial company.

For the purpose of obtaining instrument validity, three experts were selected to serve as a panel to judge the questionnaire items. The questionnaire was designed by the researcher after careful examination of the literature reviewed regarding the individual participation and involvement in quality circle programs.

Please read the directions and indicate your judgment of each item. I deeply appreciate your willingness to participate, and would like to thank you for your kind cooperation.

Most Cordially,

Abdul Selaim

Please read each item, and indicate your judgment by using the following scale:

1– not important

2– important, but not essential

3– essential

If there are any items you think should be added, or any suggestion you'd like to make, please do so by using the last page.

		<b>not important</b>	<b>important, but not essential</b>	<b>essential</b>
1.	I attend most quality circle meetings.	1	2	3
2.	I encourage my co-workers to attend quality circle meetings.	1	2	3
3.	I participate by suggestion ideas in Q.C. meetings.	1	2	3
4.	When I miss a Q.C. meeting, I try to find out what was discussed.	1	2	3
5.	I feel the quality circle meetings are beneficial to our work unit.	1	2	3
6.	I feel committed to the results of the meetings.	1	2	3
7.	I am confident in the success of the meetings.	1	2	3

**Items that should be added, or suggestions:**

**Appendix C**  
**Cover Letter and the Instrument**  
**in English Language**



Dear Sir:

Your company has been selected as one of the companies in Saudi Arabia Basic Industries Corporation (SABIC) to participate in a study that could provide useful information concerning employee satisfaction and their degree of participation in quality circle programs.

Realizing how busy you must be, this questionnaire has been prepared in such a manner as to make your responses as easy as possible. Please take a few moments of your time to complete it as accurately as possible. Please make every effort to return it within three days.

Your responses to the questionnaire will be treated as entirely confidential. You are not asked to provide your name. This letter strongly requests your assistance and cooperation in bringing this study to a successful completion.

I deeply appreciate your willingness to participate, and would like to thank you for your kind cooperation.

Sincerely,

Abdulrahman Selaim

Please read each statement on this questionnaire and circle one of the answer spaces, also please remember there are three pages to be completed.

1. What is your age?

- (1) Less than 25 years
- (2) 25 – 35 years
- (3) 36 – 45 years
- (4) 46 – 56 years

2. What is the highest educational degree you earned?

- (1) Associate
- (2) Bachelor
- (3) Masters
- (4) Doctoral

3. From where you earned your degree?

- (1) Saudi Arabian
- (2) American
- (3) Europe

4. How long have you been working for this company?

- (1) Less than 2 years
- (2) 3 – 5 years
- (3) 6 – 8 years
- (4) 9 – 11 years

Please indicate your response to the following statements by circling your agreement to a low (1), middle (2), or high (3) degree.

	<u>Low</u>	<u>Middle</u>	<u>High</u>
5. I attend most quality circle meetings.	1	2	3
6. I encourage my co-workers to attend quality circle meetings.	1	2	3
7. I participate by suggestion ideas in Q.C. meetings.	1	2	3
8. When I miss a Q.C. meeting, I try to find out what was discussed.	1	2	3
9. I feel the quality circle meetings are beneficial to our work unit.	1	2	3
10. I feel committed to the results of the meetings.	1	2	3
11. I am confident in the success of the meetings.	1	2	3
12. I feel Q.C. meetings improve communication through group activities.	1	2	3
13. I feel Q.C. meetings increase management understanding employees' concerns and problems.	1	2	3

Please indicate below, by circling one of the answer spaces, your response to the following questions.

		Somewhat Dissatisfied	Very Dissatisfied	Neutral	Fairly Satisfied	Very Satisfied
14.	Overall, how satisfied are you with the persons in your workgroup?	1	2	3	4	5
15.	Overall, how satisfied are you with your supervisor?	1	2	3	4	5
16.	Overall, how satisfied are you with your job?	1	2	3	4	5
17.	Overall, how satisfied are you with this organization?	1	2	3	4	5
18.	Considering your skills and the effort you put into your work, how satisfied are you with your pay?	1	2	3	4	5
19.	How satisfied are you with the progress you have made in this organization <u>up to now</u> ?	1	2	3	4	5
20.	How satisfied are you with your chances for getting ahead in this organization in the <u>future</u> ?	1	2	3	4	5

**Appendix D**  
**Cover Letter and the Instrument**  
**in Arabic Language**

الاخ الزميل /

المنتزم

السلام عليكم ورحمة الله وبركاته

حيث انني اقوم باستكمال الخطوات الاخيره من رسالة الدكتوراه ، مما يتطلب مني بحثا ميدانيا غرضه المباشر معرفة بعض البيانات المتعلقة باعمالكم وقياس مدى الرضاء الوظيفي لدى الموظفين عن اعمالهم وذلك فيما يتعلق بالعمل الجماعي ، المدراء ، العمل ، الشركة ، الترقية ، وكذلك المستقبل الوظيفي . لذلك ارفق لكم نسختين من هذا الاستبيان احدهما باللغة العربية والاخرى بالانجليزية ، املا اختيار الاسهل لكم ووضع دائرة امام الاجابة المناسبة من وجهة نظركم  
كما ارجو الاجابة على جميع الاسئلة ، علما بان الاجابات سوف تعامل بسرية ولنفرض العلمي فقط .

شاكرا لكم تعاونكم ..

اخوكم /

عبد الرحمن بن يحيى السليم

الرجاء قراءة هذه الاسئلة ووضع دائرة أمام الجواب المطابق لوضعك .  
كما ارجو الاجابة على جميع الاسئلة

١ - في أي مجموعة من الاعمار يقع عمرك ؟

١ - أقل من ٢٥ سنة

٢ - ٢٥ - ٢٥ سنة

٣ - ٢٦ - ٤٥ سنة

٤ - ٤٦ - ٥٦ سنة

٢ - ما هي أعلى مرحلة تعليمية اكتملتها ؟

١ - دبلوم

٢ - بكالوريوس

٣ - ماجستير

٤ - دكتوراه

٣ - من أي بلد تخرجت ؟

١ - السعودية

٢ - أمريكا

٣ - أوروبا

٤ - كم مضي على خدمتك في هذه الشركة ؟

١ - سنتين أو أقل

٢ - ٢ - ٤ سنوات

٣ - ٦ - ٨ سنوات

٤ - ٩ - ١٢ سنة

١ ٢ ٣

٥ - كثيرا ما حضر اجتماعات القسم ( دائرة الجودة )

١ ٢ ٣

٦ - اشجع زملائي في العمل لحضور اجتماعات  
القسم ( دائرة الجودة ) ؟

١ ٢ ٣

٧ - اشارك بطرح بعض الافكار والآراء في  
اجتماعات القسم ( دائرة الجودة ) ؟

١ ٢ ٣

٨ - عندما اتغيب عن اجتماع من اجتماعات  
القسم ( دائرة الجودة ) احاول معرفة ما طرح  
او نوقش في الاجتماع ؟

١ ٢ ٣

٩ - اشعر بان اجتماعات القسم ( دائرة الجودة )  
تعود بالفائدة للقسم ؟

١ ٢ ٣

١٠ - اتمك بنتائج القرارات المتخذة في تلك  
الاجتماعات ؟

١ ٢ ٣

١١ - لدي الثقة بنجاح هذه الاجتماعات ؟

١ ٢ ٣

١٢ - اشعر ان اجتماعات القسم ( دائرة الجودة ) ترفع من حسن التفاهم  
بين الافراد خلال العمل

١ ٢ ٣

١٣ - اشعر ان اجتماعات القسم ( دائرة الجودة ) ترفع من اعتماد وتفهم  
الادارة لمشاكل العمال



بشكل قليل جدا  
بشكل قليل  
بشكل متوسط  
بشكل جيد  
بشكل جيد جدا

١٤ - بشكل عام ، هل أنت مرتاح مع المجموعة التي  
تعمل معها ؟

١ ٢ ٣ ٤ ٥

١٥ - بشكل عام ، هل أنت مرتاح مع رئيسك المباشر ؟

١ ٢ ٣ ٤ ٥

١٦ - بشكل عام ، هل أنت مرتاح من وظيفتك  
الوظيفية الحالية ؟

١ ٢ ٣ ٤ ٥

١٧ - بشكل عام ، هل أنت مرتاح مع الشركة التي  
تعمل معها ؟

١ ٢ ٣ ٤ ٥

١٨ - هل أنت مقتنع بالمرتب الذي يدفع لك ؟

١ ٢ ٣ ٤ ٥

١٩ - هل أنت مقتنع بالتدرج الوظيفي الذي  
حصلت عليه في هذه الشركة ؟

١ ٢ ٣ ٤ ٥

٢٠ - هل أنت مقتنع بالفرص التي تتاح لك لتعلم  
مركز أعلى في هذه الشركة مستقبلا ؟

١ ٢ ٣ ٤ ٥

وشكرا لكم على تعاونكم

**Appendix E**  
**Arabic Translation of Quality Circles**

## حلقات الجودة اليابانية: المفهوم والأهمية

الدكتور/ وجيه العلي •

### مقدمة:

يتفق معظم المحللين على أن ظاهرة النجاح أو التفوق الاقتصادي الكبير الذي أحرزته الشركات اليابانية خلال السنوات الأخيرة الماضية إنما يعود، بشكل رئيسي، إلى العوامل التالية [١]:

- اختلاف النمط الإداري الياباني عن الأنماط الإدارية الأخرى السائدة والمعروفة في خارج اليابان.
- اختلاف الأساليب الفنية التي تطبقها الشركات اليابانية عما تطبقه مثيلاتها من الشركات في العالمين: المتقدم والنامي، على حد سواء.
- إيجابية الوسط أو البيئة التي تعمل في إطارها الشركات اليابانية إذا قورنت بما هو قائم في المجتمعات الأخرى.

ومما هو جدير بالملاحظة أن ظاهرة النجاح أو التفوق الياباني هذه قد أثارت فضولا علمياً واهتماماً دولياً لم نشهد نظيراً له من قبل. وأية ذلك قوافل المسافرين من الباحثين والقادة الإداريين الذين يشدون الرحال يومياً إلى «بلاد الشمس» لا بهدف الاستجمام، وإنما بهدف الاطلاع على ما يسمى بـ«الظاهرة اليابانية» أو «المعجزة اليابانية»، والكشف عن المزيد من أسرارها وفنونها.

ولعل واحدة من أكثر فنون الإدارة اليابانية مدعاة للاهتمام والدراسة، هي تلك المجموعات الصغيرة من العاملين الذين يعملون بكل حماس وجدية من أجل أن يطوروا

(٥) جامعة مورت نيسنر الولايات المتحدة الأميركية

مستويات الجودة والانتاجية في مواقع العمل التي ينتسبون إليها جنباً إلى جنب مع قيامهم بواجباتهم الاعتيادية. هذه المجموعات الصغيرة من العاملين تعرف اصطلاحاً باسم «حلقات الجودة» أو «حلقات الرقابة على الجودة»، و يشار إليها اختصاراً بالأحرف (Q. C.) و (Q. C. C.) على التوالي [2].

ترى ما هي حلقات الجودة اليابانية؟ وما هي أهدافها ووسائلها؟ ولماذا كل هذا الاهتمام بها؟ وهل بالامكان نقل هذه التجربة إلى المجتمعات الأخرى؟... هذه التساؤلات وأخرى غيرها هي ما سنحاول مناقشته والاجابة عنه في ورقة البحث الحالية.

### ماهي حلقات الجودة؟

في مقال نشرته مجلة كاليفورنيا للإدارة تحت عنوان «الانتاجية: التعلم من اليابانيين»، عرف الدكتور Hiroaki Takeuchi، وهو أستاذ للإدارة في جامعة هارفارد، حلقة الجودة بأنها «مجموعة من العاملين تتطوع لدراسة وحل مشكلات العمل» [3]. وفي تعريف آخر مماثل، عرفت حلقة الجودة بأنها «مجموعة صغيرة من العاملين يؤدون عملاً متشابهاً أو مترابطاً، يتقابلون بشكل دوري بهدف تحديد وتحليل وحل مشكلات الجودة والانتاج وتحسين الأداء» [4]. وفي تعريف ثالث، عرفت حلقة الجودة بأنها «مجموعة صغيرة من العاملين يشتركون في عملية دراسية تعاونية مستمرة هدفها الكشف عن المشكلات التي تعترض مسيرة العمل، والعمل على تقديم الحلول المناسبة لها» [5].

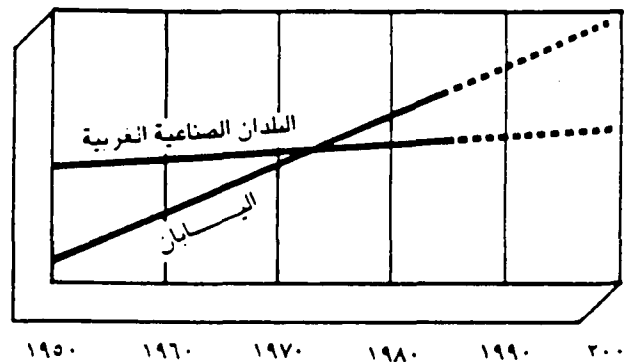
هذا وتقوم فكرة حلقات الجودة اليابانية على الافتراضات الانسانية التالية [6]:

- ١ - إن كل عامل مسئول عن عمله، وأنه يرغب في أن يؤدي عمله هذا بكفاءة وإتقان.
- ٢ - إن كل عامل هو خير خبير في اكتشاف وحل مشكلات الجودة المتعلقة بعمله، وبالتالي فإن أولئك الذين يؤدون أعمالاً معينة هم أعرف من غيرهم بما تتطلبه تلك الأعمال من تحسينات.
- ٣ - التحسينات في الجودة وفي مستوى الأداء لا بد وأن تأتي من أفراد مدربين وملتزمين.

### نشأة حلقات الجودة:

إلى عهد قريب، كانت عبارة «صنع في اليابان» دليلاً للمنتج الرخيص ذي الجودة الرديئة... لكن الأمر قد تغير الآن وأصبحت العبارة تدل، على المنتج الأجود والأرخص ثمناً في السوق الدولية [انظر الشكل البياني رقم ١]. ويعود الفضل في حصول مثل هذا التحول إلى الجهود المنظمة والحثيثة التي بذلها اليابانيون من أجل الارتقاء بمستوى جودة المنتجات التي يقومون بتصنيعها. فلقد أدرك اليابانيون، في أعقاب الحرب العالمية الثانية، أن الوسيلة الوحيدة التي يستطيعون بها تجنب الهزائم المتكررة هي أن تتعلم اليابان بأسرع طريقة ممكنة فنون الصناعة الغربية، لهذا بذل اليابانيون جهوداً مكثفة لاستيعاب معطيات العلم والتكنولوجيا المتقدمة، كما بذلوا جهوداً موسعة لاصلاح النظام التعليمي وتحديثه. ومن أجل أن يحققوا ذلك، قاموا -بالإضافة إلى أمور أخرى - باستقدام العديد من العلماء والمتخصصين الدوليين، وكان من بينهم خبراء مرموقون في مجال الرقابة على جودة الانتاج، أمثال: الدكتور Walter Shewhart من شركة بل للتلفونات، والدكتور Edward Deming من جامعة هارفارد، والدكتور Joseph Juran من جامعة نيو يورك، حيث عمل هؤلاء الخبراء جنباً إلى جنب مع جمعية العلماء والمهندسين اليابانيين (JUSE) Japanese Union of Scientists and Engineers على تطوير مفاهيم رقابة الجودة Quality Control وترويجها في عموم الصناعة اليابانية.

شكل بياني رقم (١)  
تطور مستوى جودة المنتجات اليابانية



المصدر:

[Juran, J. «Product Quality: A Prescription for The West», Management Review, June and July 1981]

وبحلول عام ١٩٦٢، قام اليابانيون بمهاجمة مشكلات الجودة عن طريق فرق أو مجاميع صغيرة (غير رسمية) من العاملين تدعى «حلقات الجودة» أو «حلقات الرقابة على الجودة».

و يبين الجدول رقم «١» لنا التطور التاريخي لهذه الحلقات، ومنه يتضح مدى الانتشار الواسع النطاق الذي حظيت به هذه التجربة الفريدة، فبعد أن كان عددها في عام ١٩٦٢ لا يتجاوز الـ (٢٣) حلقة مسجلة رسمياً لدى جمعية العلماء والمهندسين اليابانيين (JUSE)، تضاعف هذا العدد ليصل في عام ١٩٨١ إلى (١٢٥,٠٠٠) حلقة [٦]. كما يشير البعض [٨] إلى أن هذا الرقم قد يصل إلى ثمانية أمثاله إذا ما أضيفت إليه الحلقات غير المسجلة رسمياً.

جدول رقم (١)  
التطور الكمي لحلقات الجودة في اليابان

عدد المشاركين	عدد الحلقات	السنة
غير متوفر	٢٣	١٩٦٢
٧٠,٩٣٠	٤,٩٣٠	١٩٦٥
٢١٢,١٣٤	١٧,٤١٦	١٩٦٨
٤٧٢,٤٢١	٤٢,٣٦٦	١٩٧١
٦٦٤,٤٥٨	٦٥,٤٧٧	١٩٧٤
٨٣٦,٤٤٨	٨٦,١٨٩	١٩٧٧
١,٠٦٢,٧٥٩	١١٥,٣٥٤	١٩٨٠
١,١٣٢,٠٠٠	١٢٥,٠٠٠	١٩٨١

المصدر:

١- Crocker, Chamev, and Chiu, P. 13

٢- Wood, Hull, and Azumi, P. 38

## أهداف حلقات الجودة

هناك العديد من الأهداف التي يمكن لبرنامج حلقات الجودة أن يحققها. وقد اعتبر الدكتور Kaoru Ishikawa، وهو أستاذ سابق في جامعة طوكيو وأحد المؤسسين البارزين لفكرة حلقات الجودة اليابانية، الأهداف الستة التالية أهدافاً رئيسية لحلقات الجودة اليابانية [9]:

- تطوير شخصية العاملين المنتسبين إلى الحلقة.
  - رفع درجة وعي العاملين بأهمية الجودة.
  - تشجيع القدرات الإبداعية لدى العاملين.
  - تحسين الروح المعنوية للعاملين.
  - تطوير القابليات الإدارية لقادة الحلقات.
  - تطبيق ومتابعة الأفكار الجديدة التي سبق أن اعتمدتها الإدارة.
- من جانب آخر، وبهدف الوصول إلى تحديد أدق لمجموعة الأهداف أو المنافع التي تحققها حلقات الجودة، قام اتحاد العلماء والمهندسين اليابانيين (JUSE) في عام ١٩٧٩ بدراسة ميدانية شملت أكثر من (٥٠٠) شركة تطبق برامج حلقات الجودة، فوجد أن هذه الحلقات قد استطاعت أن تحقق العديد من الأهداف أو المنافع، سواء على صعيد الأفراد المنتسبين إليها، أو على صعيد الشركة التي تطبق مثل هذه البرامج. و يبين الجدول رقم (٢) لنا بعضاً من تلك الأهداف.

## خصائص حلقات الجودة

- تتميز معظم حلقات الجودة اليابانية بالخصائص الرئيسية التالية [10]:
- الانتساب إلى الحلقة يعد أمراً اختيارياً، بمعنى أن العاملين لهم مطلق الحرية في الانتساب إلى الحلقة وكذلك في الانسحاب منها.
  - تحظر الحلقة بالدعم المالي والمعنوي من قبل الإدارة العليا. وهذا يعني أن الإدارة العليا تتحمل كافة المصروفات، وتطبق التوصيات المقدمة من قبل الحلقة، وترعى برامج التدريب. و يعني أيضاً أن الإدارة العليا تخصص وقتاً وتبذل جهداً من أجل تطوير فاعلية هذه الحلقات.
  - انعقاد الحلقة يكون، عادة، بعد أوقات الدوام الرسمي.
  - هناك قائد Leader لكل حلقة (يكون عادة أحد المشرفين أو الرؤساء المباشرين

جدول رقم (٢) أهداف حلقات الجودة

تحسين الاتصالات عملية داخل الشركة			
2 تحسين مواقف العاملين إزاء المشكلات المطروحة	3 تحقيق درجة أعلى من رضا العاملين	4 ارتفاع الروح المعنوية للعاملين	
5 تحسين جودة المنتجات	6 رفع مستوى الانتاجية	7 تحسين السلامة المهنية	
8 تحسين فرص حل المشكلات	9 خفض الضائع من الوقت والجهد	10 تقليص المصروفات	11 تقوية روح العمل الجماعي (روح الفريق الواحد)
12 تماسك التنظيم	13 زيادة رغبة العاملين في المشاركة وفي إنجاز الأعمال	14 خفض معدلات الغياب	15 خفض حالات التذمر
16 علاقات إنسانية أفضل	17 تطوير شخصية العاملين	18 توفير فرص جيدة للتعليم	
19 تصعيد درجة وعي العاملين بالمشكلات المحيطة	20 تحسين بيئة العمل	21 زيادة ولاء العاملين للشركة	
22 زيادة مشاركة العاملين في اتخاذ القرارات وحل المشكلات			

المصدر:

1- Takeuchi, PP. 10-11

2- Ingle and Ingle, PP. 175-180

لمجموعة العاملين المنتسبين إلى الحلقة، إلا أن ذلك لا يمنع من أن يكون قائد الحلقة أيضاً من بين العاملين أنفسهم).

- تجتمع الحلقة في أوقات منتظمة (عادة مرة واحدة في الأسبوع).
- يتلقى أعضاء الحلقة تدريباً مستمراً على مفاهيم الرقابة على الجودة وأساليب حل وتحليل المشكلات.
- يتم التأكيد في داخل الحلقة على مسألة تطوير القدرات والقابليات الشخصية للعضو المنتسب وتحسين الاتصالات.



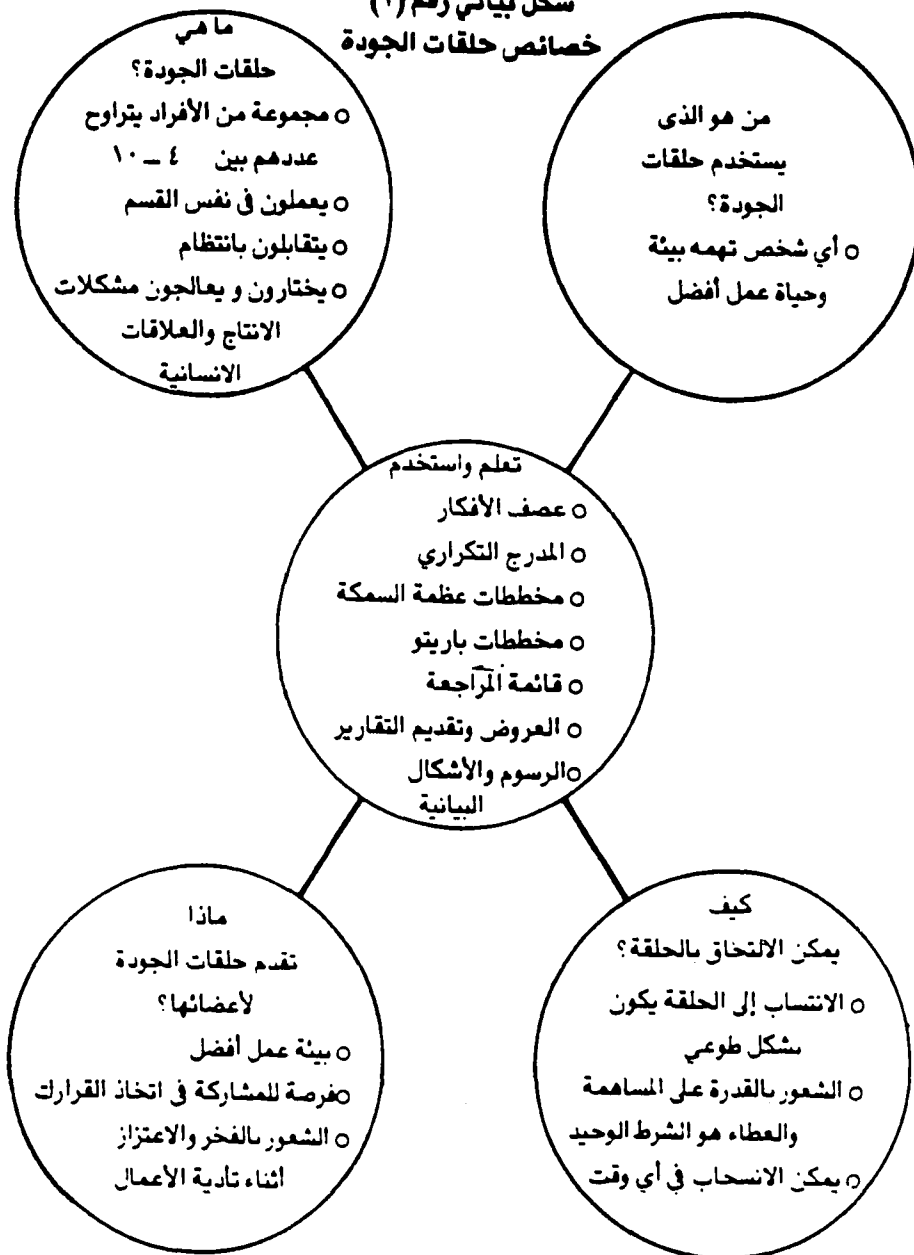
- لأعضاء الحلقة كامل الحرية في اختيار الموضوعات أو المشكلات التي يرغبون في مناقشتها وتحليلها شريطة أن ترتبط هذه الموضوعات بمشكلات الإنتاج والعمل.
  - تستمر الحلقة في البحث عن المشكلات المتعلقة بتطوير العمل والإنتاج واستنباط الحلول المناسبة لها.
  - يتراوح عدد أعضاء الحلقة بين ٤-١٢ عضواً ينتمون إلى مجال عمل واحد أو متقارب.
- و يبرز الشكل البياني رقم «٢». وهو في الأصل ملصق جداري استخدمته إحدى المنشآت الصناعية بهدف التعريف بحلقات الجودة والترويج لها. بعضاً من تلك الخصائص [١١].

### اهتمامات حلقات الجودة:

إن حلقات الجودة، وعلى خلاف ماتوحيه تسميتها، لا يقتصر عملها أو اهتمامها على حل قضايا الجودة ومشكلاتها، بل يتعداه إلى قضايا ومشكلات أخرى عديدة [١٢]. فقد تبين من خلال الدراسات والمسوحات الميدانية التي أجراها اتحاد العلماء والمهندسين اليابانيين (JUSE)، أن هذه الحلقات تبحث في كل السبل المفضية إلى تطور المنشأة وتقدمها، بدءاً من طرائق العمل المطبقة وانتهاء بقائمة المأكولات أو المشروبات التي تقدمها كافتيريا المنشأة [١٣]. ومع ذلك، يبقى الغرض الرئيسي لحلقات الجودة هو حل المشكلات، بمعنى إكساب الأفراد المنتسبين إليها المهارات والدرايات المطلوبة لقياس وتحليل وتقييم المشكلات وحلها [١٤].

و يقدم الجدول رقم «٣» توزيعاً للنشاطات أو الفعاليات التي تمارسها حلقات الجودة طبقاً لما أسفرت عنه نتائج الدراسة الميدانية التي أجراها اتحاد العلماء والمهندسين اليابانيين (JUSE) في عام ١٩٧٩، و يقدم لنا الشكل البياني رقم «٣» كذلك إطاراً عاماً باهتمامات حلقات الجودة ومجالات التطبيق. ومنه يتبين مدى الاهتمام الذي توليه هذه الحلقات لقضايا مثل: الجودة، التكاليف، المواصفات، الانتاجية، الجدولة ... فهذه القضايا الخمس تشكل محوراً واهتماماً مركزياً لجميع الحلقات. أما مجالات التطبيق، فإنها قد توزعت كما هو واضح في الشكل على جوانب أربعة هي: المواد، الأفراد، الماكينات، طرائق العمل [١٥].

شكل بياني رقم (٢)  
خصائص حلقات الجودة



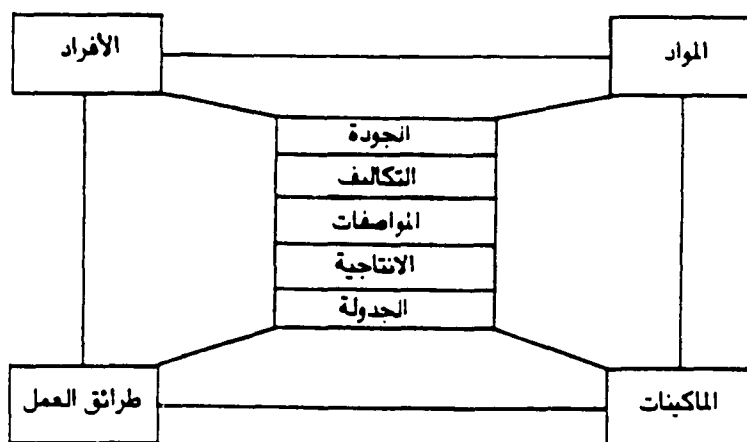
المصدر: P 3: Enck, Ester, and morties

**جدول رقم (٣)**  
**اهتمامات حلقات الجودة مرتبة ترتيبا تنازليا وفقا**  
**لاهميتها النسبية**

مستوى الأهمية	نوع النشاط أو الفعالية
١	○ خفض التكاليف
٢	○ رقابة جودة المنتجات
٣	○ تحسين الخدمات داخل القسم أو الورشة
٤	○ السلامة المهنية
٥	○ رفع الروح المعنوية للعاملين
٦	○ الرقابة على التلوث
٧	○ التقيف المستمر للعاملين

المصدر: (Takeuchi, p 9)

**شكل بياني رقم (٣)**  
**اهتمامات حلقات الجودة ومجالات التطبيق**



المصدر: (Ross and Ross, p 30)

## تنظيم حلقات الجودة:

على الرغم من أن غالبية حلقات الجودة تعمل بشكل غير رسمي، إلا أن ذلك لا يعني أن عملها يتسم بالطابع التلقائي، فبجانب أى برنامج لحلقات الجودة يوجد ظل من التنظيم يدعم نشاط الحلقات و يحدد لها أهدافها ومسئولياتها ونوعية الأفراد المشاركين فيها.

و يوضح الشكل البياني رقم «٤» وكذلك الشكل البياني رقم «٥» سوا المكونات التنظيمية لحلقات الجودة التى تشتمل على العناصر الستة التالية [١٦]:

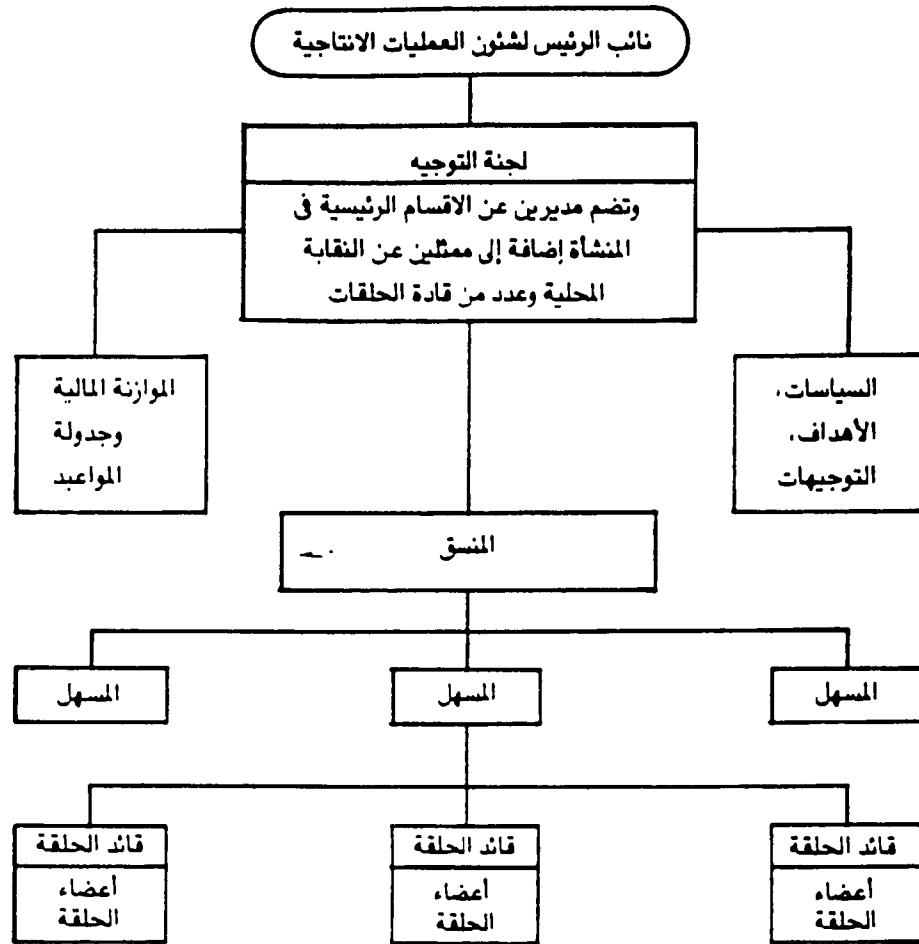
ToP Management	○ الادارة العليا
Steering Committee	○ لجنة التوجيه
Coordinator	○ المنسق
Facilitator	○ المسهل
Circle Leaders	○ قادة الحلقات
	○ الحلقات والأعضاء المنتسبين إليها
Circles and Circle members	

**الادارة العليا:** وتكون عادة ممثلة بنائب الرئيس لشئون الانتاج. أما مهمتها فهي تقديم الدعم المادي والمعنوي لبرنامج حلقات الجودة. ذلك أن عدم القيام بتقديم مثل هذا الدعم، أو التكوؤ في تقديمه، سيؤدي، لا محالة، إلى فشل البرنامج بأكمله.

**لجنة التوجيه:** وتضم في عضويتها مديرين أو ممثلين كبار عن الأقسام الرئيسية في المنشأة، إضافة إلى ممثلين عن النقابة المحلية، وعدد من قادة الحلقات. وتنحصر مهمة لجنة التوجيه في وضع الخطط ورسم السياسات الكفيلة بتطوير برنامج حلقات الجودة، كما أنها تقوم بتعيين من يسمى بـ «منسق البرنامج».

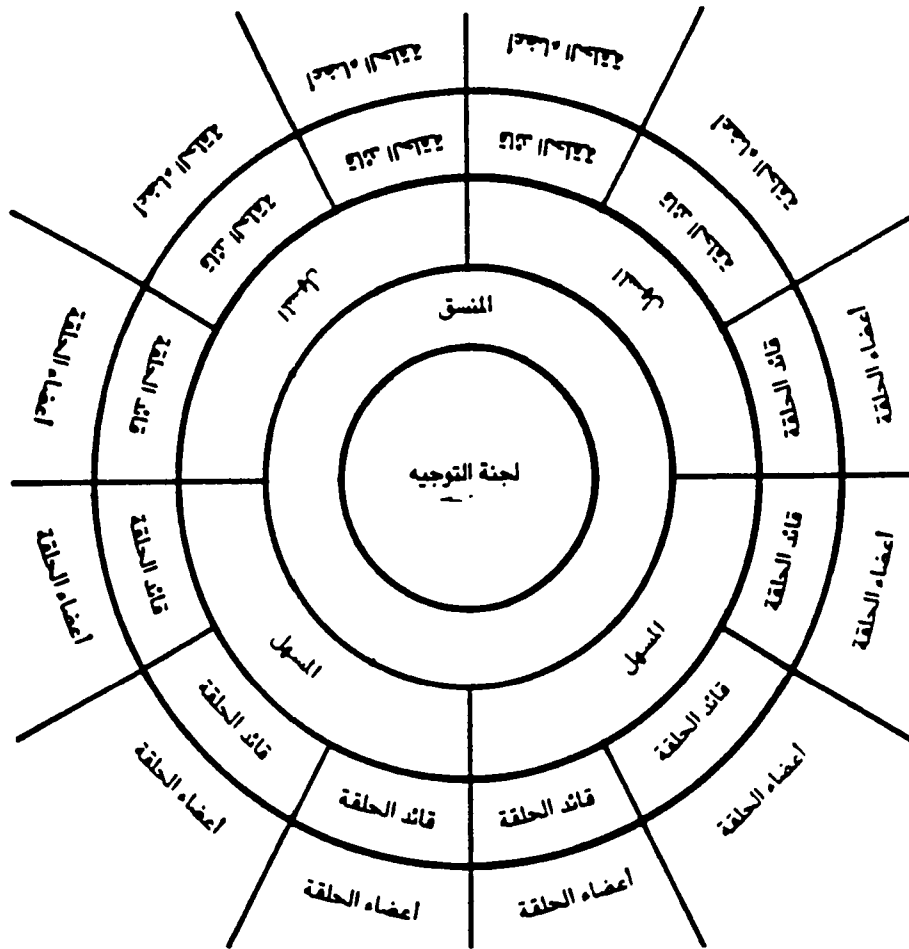
**المنسق:** ويوجد هذا المركز، عادة، في الشركات الكبيرة، حيث تناط بمن يشغله مهمة الاشراف على من يسمون بـ «المسهلين» Facilitators. وينظر إلى المنسق على أنه حلقة وصل بين لجنة التوجيه من جهة، وأقسام الشركة ومجموعة المسهلين من جهة أخرى، فهو الذى يجعل لجنة

شكل بياني رقم (٤)  
مخطط نمونجي لتنظيم حلقات الجودة



المصدر: (P. ١٠٠, Lester and Mottray, ١٩٨٠)

شكل بياني رقم (٥)  
تنظيم حلقات الجودة



المصدر: (Ross and Ross, P. 134)

التوجيه على علم بالتقدم الذي تحرزه حلقات الجودة، كما أنه يوصل رغبات لجنة التوجيه إلى المديرين أو المسهلين. كذلك يقوم المنسق باختيار الأفراد كي يعملوا بصفة مسهلين لبرنامج حلقات الجودة.

**المسهل:** يتلخص عمل المسهل، الذي يتسم بشيء من الأهمية والخطورة

بالنسبة لنجاح برنامج حلقات الجودة، في النقاط السبع التالية:

- ترويج وتعميم فكرة حلقات الجودة.
  - الحصول على المتطوعين للعمل في برنامج حلقات الجودة.
  - تدريب قادة الحلقات.
  - مساعدة أعضاء الحلقة في حل المشكلات المطروحة دون أن يتدخل بشكل مباشر.
  - جعل مديري الأقسام على علم بما يدور في الحلقات.
  - تنفيذ ومتابعة تقييم سياسات المنشأة بخصوص برنامج حلقات الجودة.
  - تقديم المشورة الفنية كلما دعت الضرورة إلى ذلك.
- وباختصار، يقوم المسهل بعمل كل ما من شأنه المساعدة في إنجاح وتطوير برنامج حلقات الجودة.

**قائد الحلقة:** يعتمد إلى درجة كبيرة نجاح أو فشل حلقة الجودة على الدور الذي يؤديه قائد الحلقة. وقائد الحلقة هو عادة أحد المشرفين المباشرين لأعضاء الحلقة، إلا أنه في داخل الحلقة لا يمتلك أية سلطة رسمية، فأي هدف يرغب في تحقيقه أو الوصول إليه، عليه أولاً أن يبيعه لأعضاء الحلقة، وبتعبير آخر عليه أن يقنعهم بأهميته وجدواه. هذا وبالإضافة إلى عملية قيادة الحلقة، يقوم قائد الحلقة بتعليم أعضاء الحلقة بمجموعة الأساليب الفنية المتعلقة بتحليل المشكلات وحلها. و يبين الجدول رقم «٤» مجموعة الصفات وكذلك المهارات القيادية المطلوب توافرها في قائد الحلقة [١٧].

**أعضاء الحلقة:** وأخيراً، ينصب اهتمام أعضاء حلقة الجودة، والذي يتراوح عددهم بين ٤ - ١٢، على حل المشكلات ذات العلاقة بمواقع العمل التي ينتمون

## جدول رقم (٤)

## الصفات والمهارات القيادية المطلوب توافرها في قائد الحلقة

الصفات	المهارات القيادية
<ul style="list-style-type: none"> <li>○ إيجابي المظهر</li> <li>○ مؤمن بأهمية الأفراد</li> <li>○ حسن السيرة</li> <li>○ مستمع جيد</li> <li>○ لديه الاستعداد للتطور</li> <li>○ مبدع ومجدد</li> </ul>	<ul style="list-style-type: none"> <li>○ القدرة على فض النزاعات</li> <li>○ القدرة على التعويض</li> <li>○ القدرة على رفع الروح المعنوية</li> <li>○ القدرة على التفاوض</li> <li>○ القدرة على تطوير معاونين أو مساعدين</li> <li>○ القدرة على تشجيع الآخرين للمشاركة في اتخاذ القرارات</li> </ul>

المصدر: (Ross and Ross, P. 143)

إليها. وفي داخل الحلقة، يتم التأكيد على أمور عديدة نذكر أهمها فيما يلي:

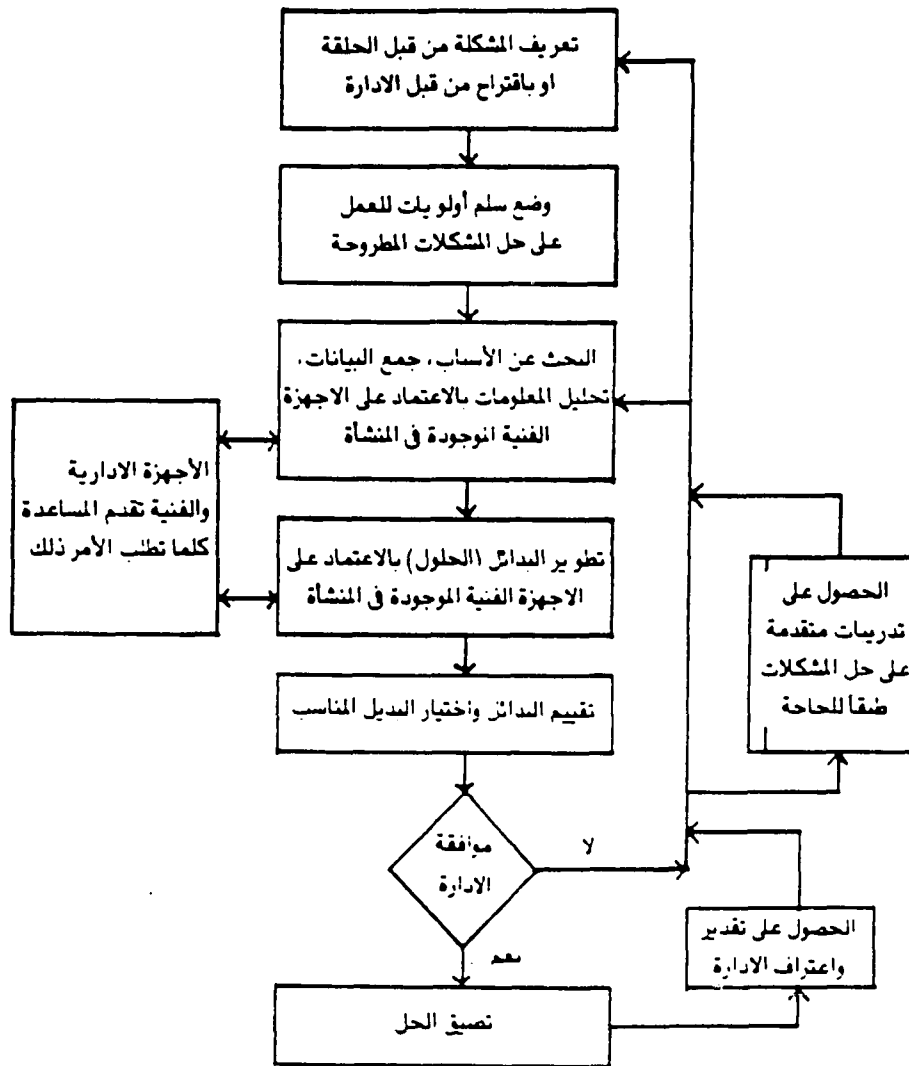
- حرية الانتساب إلى الحلقة.
- استخدام الأساليب العلمية في تحليل وحل المشكلات المطروحة.
- أخذ الآراء أو الأفكار التي يطرحها أي عضو في الحلقة بعين الجد والاعتبار.
- المشاركة في اتخاذ القرارات.

## أسلوب عمل حلقات الجودة

- من الناحية الوظيفية، ينظر إلى حلقات الجودة على أنها جهاز لحل المشكلات، [18]. فهي التي تحدد المشكلات، وتبحث عن البدائل (الحلول)، وتقيم البدائل، وتختار البديل المناسب، وأخيراً تطبق الحل كلما أمكن ذلك.
- ويقدم الشكل البياني رقم «٦» تصوراً مبسطاً عن هذه العملية. كما يوضح أيضاً مقدار الدعم الذي توليه الإدارة لهذه الحلقات والذي يتمثل في الآتي.
- تقديم المشورة الفنية التي يحتاجها أعضاء الحلقات.
  - تقديم التدريبات المناسبة لأعضاء الحلقات بهدف مساعدتهم على حل المشكلات المعقدة.
  - تقديم المكافآت التشجيعية لأعضاء الحلقات.



شكل بياني رقم (٦)  
طريقة عمل حلقات الجودة والدعم الذي  
تلقاه من قبل الإدارة



المصدر: (Sule and Strack, P. 91)

وتجدر الإشارة هنا إلى أن أعضاء الحلقات - وقبل أن يباشروا عملهم في حل المشكلات - يتعلمون الأساليب الإحصائية وطريقة حل المشكلات، وذلك بهدف التمكن من عملية استكشاف المشكلات وحلها بشكل فعال. وأدناه قائمة بمجموعة الأساليب الفنية الأكثر استخداماً من قبل حلقات الجودة [19]:

- كشوفات المراجعة . Check Sheets
- مخططات باريتو . Pareto Charts
- مخططات السبب والنتيجة . Cause- and - effect Diagrams
- مخططات الرقابة على الجودة . Quality Control Charts
- عصف الأفكار . Brainstorming
- المدرج التكراري . Histogram
- أساليب البيانات . Data Collection

### لماذا نجحت حلقات الجودة اليابانية؟

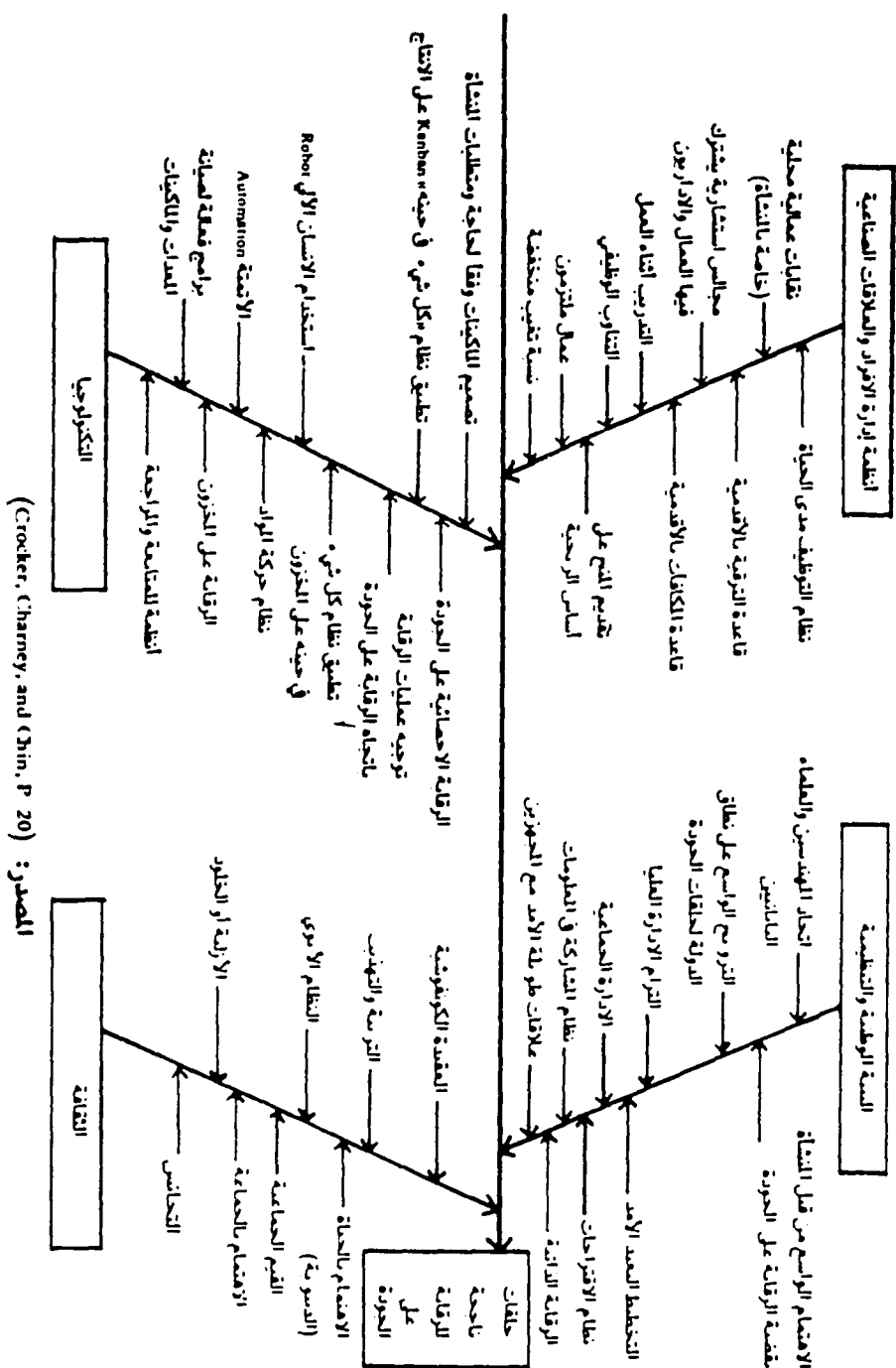
للإجابة عن هذا السؤال، ينبغي البحث طويلاً في مجموعة العوامل السياسية والاقتصادية والاجتماعية والإدارية التي وقفت خلف حركة الرقابة على الجودة في اليابان، وأمدتها بكل المتطلبات الضرورية للنجاح والانتشار. وقد ذكر الدكتور Crocker Olga مع زميلين له، في كتاب لهما نشر عام ١٩٨٤ تحت عنوان «حلقات الجودة»، العوامل التالية باعتبارها عوامل هامة تسببت في دعم حلقات الجودة اليابانية ونجاحها [20]:

- طبيعة المجتمع الياباني وثقافته.
- البيئة التنظيمية والوطنية (المحلية).
- العلاقات الصناعية وأنظمة إدارة الأفراد.
- البرامج المكثفة للتدريب والتثقيف.
- التكنولوجيا.

و يستخدم الشكل البياني رقم «٧» مخطط «عظمة السمكة» لتوضيح هذه العوامل وتفرعاتها المختلفة [21].

• وتسمى أيضاً بمحطات «عظمة السمكة» Fishbone أو محطات «Ishikawa» نسبة إلى مصممها الدكتور Ishikawa الأستاذ بجامعة طوكيو

شكل بياني رقم (٧)  
عوامل مساهمة في نجاح حركة حلقات الرقابة على الجودة اليابانية



هذا وتجدر الإشارة هنا إلى أن نجاح حلقات الجودة وانتشارها في اليابان لا يعني أن هذه الحلقات خالية من المشكلات أو التهديدات ... فثمة مشكلات ومشكلات عديدة ما تزال تقف حائلا في طريق الانتشار والنجاح الكامل لهذه الحلقات، نذكر أهمها فيما يلي [22]:

- الاخلال بمبدأ «طوعية الانتساب» إلى الحلقة.
- التدخل في نشاطات الحلقة من قبل مهندس الإنتاج.
- التركيز على قضية الانتاجية دون غيرها من القضايا.
- اكتساب العمل داخل الحلقة طابعاً طقوسياً رتيباً.

فمن حيث المبدأ، ينبغي أن تأخذ عملية الانتساب إلى حلقات الجودة طابعاً تطوعياً، بمعنى ألا يرغب العامل على الانتساب إلى هذه الحلقات، مادام هو ذاته غير راغب في ذلك. إلا أن التطبيق العملي لهذا المبدأ قد اتخذ مساراً مغايراً... فلم تعد مسألة الانتساب إلى حلقات الجودة، لدى العديد من الشركات اليابانية، أمراً تطوعياً كما يفترض لها أن تكون، بل أضحت الإدارة متورطة في ممارسة الضغوط المختلفة لزيادة نسبة الانتساب إلى هذه الحلقات. وقد كتب الدكتور Robert Cole، مدير مركز الدراسات اليابانية في جامعة ميشغان - أن: «أربور واحد الخبراء البارزين في هذا المجال، معلقاً على هذه المشكلة بالقول:

«من المعروف أن هناك تبايناً كبيراً بين الشركات والصناعات اليابانية بخصوص طوعية الانتساب إلى حلقات الجودة ففي أغلب الشركات التي لديها حلقات للجودة، نجد أن الإدارة تمارس ضغطاً كبيراً على مستخدميها من أجل الانتساب إلى هذه الحلقات، بل إن الإدارة باتت تنظر إلى عدم إذعان العامل لرغبتها في الانضمام إلى حلقات الجودة، على أنه نقص في التزامه حيال المنشأة وأهدافها العريضة، وهو الأمر الذي قد يعرض مستقبله الوظيفي إلى الخطر. كذلك نجد أن بعض الشركات قد اعتمدت نظاماً للحصص: كذا اقتراح لكل حلقة، كذا اقتراح لكل شهر... وهو ما يصعب اعتباره شكلاً أو نموذجاً للتطوعية» [23].

وهكذا تكون الإدارة اليابانية بممارساتها الخاطئة هذه، قد أفقدت حلقات الرقابة على الجودة الكثير من حيوتها وقدرتها على تحديد المشكلات وحلها، بل إن هذه الحلقات قد أصبحت تشكل، في بعض الشركات، عبئاً جديداً ينوء بوظائفه العاملون بعد أن كانت إطاراً تحفيزياً لهم [24].

أما المشكلة الثانية التي تواجهها حلقات الجودة اليابانية وتتمثل في التدخل المفرط من قبل مهندس الانتاج والجودة في أعمال ونشاطات الحلقات... فقد أدى هذا التدخل إلى ظهور العديد من حالات التذمر وعدم الارتياح بين صفوف العاملين المنتسبين إلى الحلقات. كذلك أدى الاهتمام الزائد الذي أولته بعض الشركات اليابانية إلى قضية الانتاجية بدلا من القضية الأساسية المتمثلة في تطوير الامكانيات والقابليات الكامنة لدى العاملين المنتسبين إلى هذه الحلقات، إلى نوع من الاحباط وخيبة الأمل لدى العاملين. وأخيراً، وليس آخراً، وكنتيجة لافتقار حلقات الجودة إلى عنصر «الطوعية»، اكتسبت ممارسة النشاط داخل هذه الحلقات طابعاً طقوسياً رتيباً، ولتفادي ذلك، عمدت بعض الشركات مثل Suzuki Motor إلى إدخال أنظمة جديدة لبعث وتجديد نشاطات الحلقة، وحث العاملين على المزيد من المشاركة في التصدي للمشكلات المطروحة وحلها.

### ما الذي يمكن تعلمه من التجربة اليابانية؟

إن النجاح المدهش الذي حققته الشركات اليابانية ليس بمعجزة أو عمل من قبيل السحر، بل هو نتيجة طبيعية للجهود المشتركة والمبدعة التي بذلها العاملون والاداريون اليابانيون على حد سواء من أجل دفع خطط الانتاج إلى حيز التنفيذ فلقد أدرك الاداريون اليابانيون أن مشكلة تحسين الانتاج وتطوير معدلاته لا ينبغي أن ينظر إليها على أنها مشكلة الآخرين، بل هي مشكلة يمكنهم التحكم فيها ومعالجتها، وإذا ما نجحوا في معالجتها فإن ذلك سيعود بالنفع العميم على كل من: المنشأة والعاملين فيها ونوعية المنتجات أو الخدمات المقدمة. وهكذا تكون التجربة اليابانية في مجال الرقابة على الجودة وزيادة الانتاج قد أمدت الفكر والممارسة الاداريين بالملاحظات أو التطبيقات التالية [25]:

- إن المكان الأول والأوضح للمديرين لكي ينظروا إليه، إذا ما أرادوا زيادة الانتاجية، هو أنفسهم... لأنه في حالة غياب دعمهم أو التزامهم الكامل لبرامج زيادة الانتاجية، فإن هذه البرامج سيكون مآلها الفشل السريع.
- على الادارة أن تدرك جيداً أن كل عامل ومهما قل شأنه أو صغر دوره يمكن له أن يساهم في حل مشكلات الانتاج والعمل.
- على المنشآت الكبيرة أن تتقبل مسئولية تدريب منتسبيها بشكل أفضل.

○ على الإدارة أن تهنيء جواً من الثقة والتعاون بينها وبين العاملين لديها. وقد يستدعي مثل هذا الأمر أن تجري الإدارة تغييرات جذرية في مواقفها وقيمتها وفلسفتها، وحتى في بنائها التنظيمي. ومن ناحية أخرى نجد أن أموراً مثل: العمل جنباً إلى جنب مع العاملين ومعاملتهم بصفتهم شركاء، وتقدير كرامة العاملين واحترام شخصيتهم، وإفساح المجال أمام العاملين للمشاركة في اتخاذ القرارات وحل المشكلات، والحرص على تدريب العاملين وتطوير مؤهلاتهم العلمية والفنية، ومساعدة العاملين في حل مشكلاتهم الشخصية... هي في الواقع تطبيقات إدارية معروفة أثبتت التجربة اليابانية أهميتها في تعزيز أواصر الثقة وروح التعاون بين إدارة المنشأة والعاملين فيها.

### هل يمكن نقل التجربة اليابانية إلى المجتمعات الأخرى؟

على خلاف المقولة القائلة بأن «الشرق شرق، والغرب غرب، وأن التوأمين لا يمكن أن يلتقيا»، كشفت التطورات الإدارية الأخيرة، على الصعيدين: النظري والتطبيقي، أن هذين التوأمين قد ابتداء رحلة الالتقاء [26]، فلم يمض وقت طويل على ظهور فكرة حلقات الجودة اليابانية حتى تبنتها العديد من الشركات الغربية بحماس واندفاع بالغين إلى الدرجة التي رشحها البعض لأن تكون «صرعة الإدارة» Managenal Fad في الثمانينيات [27].

إن شركات عالمية مثل IBM، Westing house، GM، Honeywell، Bosch، Rolls-Royce، هي فقط عدد قليل من الشركات العملاقة التي اعتمدت هذه الفكرة اليابانية وطبقوها في مصانعها وورشها ومكاتبها باعتبارها منهجاً جديداً لزيادة الانتاجية ورفع الروح المعنوية وتخفيض معدلات الغياب وترك العمل.

فعلى سبيل المثال أدخلت فكرة حلقات الجودة اليابانية إلى الولايات المتحدة الأمريكية في أكتوبر عام ١٩٧٤ بواسطة شركة لوكهيد Lockheed [28]، فقد أوفنت، ومنذ بداية السبعينيات، بعضاً من منتسبيها إلى اليابان لزيارة جمعية العلماء والمهندسين اليابانيين (JUSE) وشركات يابانية أخرى نشطة في مجال تطبيق برامج حلقات الجودة. وقد أجمع هؤلاء الموفدون، في تقارير رفعوها إلى شركتهم بعد عودتهم من اليابان، على أهمية حلقات الجودة وفعاليتها في حفز العاملين وتطوير قدراتهم الفنية والشخصية، فضلاً عن تنمية الشعور لديهم بالمشاركة في اتخاذ القرارات وحل

المشكلات [29]. كذلك أفادت هذه التقارير بحياة الدور الذي تلعبه الإدارة في تنشيط وتدعيم هذه التجربة الجديدة [30]. وكنتيجة لذلك، أقدمت شركة لوكهيد على تأسيس أول حلقة للرقابة على الجودة، وكان ذلك في أكتوبر (تشرين الأول) عام ١٩٧٤ كما أوضحنا من قبل. وبعد ثلاثة أعوام فقط، أي في عام ١٩٧٧، أصبح لدى شركة لوكهيد حوالي ٣٠ حلقة للرقابة على الجودة، وفرت للشركة مبالغ نقدية قيمتها ٢ ملايين دولار نتيجة للأفكار الجديدة، ولحلول المشكلات التي تقدم بها أعضاء هذه الحلقات [31].

هذا وتشير البيانات المتوفرة، بأن الولايات المتحدة الأمريكية قد شهدت، خلال السنوات الخمس الأخيرة، تصعيداً واضحاً في برامج ونشاطات حلقات الجودة [32]. فقد تبين من الدراسة التي أجرتها New York Stock Exchange في عام ١٩٨٢، أن ٤٤٪ من الشركات الأمريكية الكبيرة لديها برامج حلقات الجودة، وأن ثلاثة أرباع هذه الحلقات قد باشرت نشاطها بعد عام ١٩٨٠ [33]. وفي دراسة أخرى، ظهر أن أكثر من ٩٠٪ من الشركات الخمسمائة العملاقة في الولايات المتحدة لديها برامج حلقات الجودة [34].

وفي المملكة المتحدة، تعتبر شركة رولس رايس (Rolls-Royce) من أوائل الشركات البريطانية التي استخدمت برامج حلقات الجودة اليابانية، وقد كان ذلك في أواخر السبعينيات [35]. وبمرور الأيام، تزايدت أعداد الشركات البريطانية المطبقة لبرامج حلقات الجودة لتصل في كانون الثاني (يناير) ١٩٨١ إلى ٤٠ شركة على الأقل، ثم ما لبث أن تضاعف هذا العدد ليصل في مارس (مايو) ١٩٨٣ إلى أكثر من ٢٠٠ شركة [36].

هذا وتشاهد اليوم برامج حلقات الجودة منتشرة ومطبقة بنجاح في أماكن وبلدان عديدة متباينة الخلفيات والثقافات مثل: السويد، كوريا، تايوان، أسبانيا، كندا، المكسيك، الهند، سنغافورة، ألمانيا، الفلبين، بلجيكا، اندونيسيا، البرازيل، ماليزيا، استراليا، إيطاليا، الصين، والولايات المتحدة الأمريكية [37].

ومن جانب آخر، نجد أن تطبيق واستخدام حلقات الجودة لم يقتصر على خطوط الانتاج وحدها، بل يمكننا اليوم مشاهدتها أيضاً في المكاتب والمصارف وخطوط الطيران وشركات التأمين والمخازن ومحلات البيع بالمفرد وغيرها من منشآت الخدمة... إن انتشار ونجاح حلقات الجودة اليابانية في أماكن وبلدان صناعية عديدة لا يعني، بالضرورة، إمكانية تطبيقها ونجاحها في جميع البلدان وبالأخص النامية منها. فثمة شروط مسبقة لنجاح هذه التجربة المتميزة، قد يصعب على الكثير من البلدان النامية توفيرها. على الأقل في الأمد القصير. نذكر أهمها:

- تمتع العاملون بمستويات ثقافية عالية تؤهلهم لاستيعاب الأفكار والتقنيات الجديدة.
  - تمتع العاملون بقدرات ذهنية واضحة تمكنهم من استخدام الأساليب الرياضية والإحصائية في معالجة وحل المشكلات المطروحة.
- وغني عن القول، أن اعترافنا بصعوبة نقل وتعميم برامج حلقات الجودة اليابانية بالنسبة للعديد من البلدان النامية لا يعني، بطبيعة الحال، استحالة النجاح أو التطبيق، خاصة في الحالات التي تتم فيها عملية التطبيق بشكل انتقائي مدروس تراعى فيه الظروف والمستلزمات المطلوبة، فقد دلت العديد من التجارب التي أجريت في كل من الهند والصين والبرازيل وسنغافورة وتايلاند واندونيسيا والمكسيك والفلبين وماليزيا... على نجاح برامج حلقات الجودة اليابانية وتقدمها في تحقيق المنافع المرجوة [38].

ولعله من المناسب أن نشير في ختام هذه الفقرة إلى أن كاتب الإدارة المعروف بيتر دراكر Peter Drucker قد كتب في بداية السبعينيات محذراً المدير الأمريكي من مغبة تقليد نظام الإدارة الياباني، واصفاً عملية التقليد هذه بأنها عمل من قبيل الحماسة [39]. ولربما يقال اليوم الشيء نفسه بالنسبة لبرامج حلقات الجودة. إلا أن الذي يدعو إلى الارتياح هو أن العديد من كتاب الإدارة المعاصرين أمثال Ouchi [40]، Hayes [41]، Wheelwright [42]، Pascale [43]، Athos [44]، Takeuchi [45]، يرون، أن الحماسة لا تكمن في تقليد الآخرين، وإنما تكمن في عدم التعلم أو الاستفادة من تجارب ونجاحات الآخرين.

### خلاصة

«صرعة الإدارة في الثمانينيات». هكذا وصف العديد من كتاب الإدارة حلقات الرقابة على الجودة. إنها واحدة من فنون الإدارة اليابانية استخدمتها الشركات اليابانية (بهوس) وحماس عاليين للوصول إلى أهدافها في زيادة الإنتاج وتحسين مستوى الجودة والأداء.

المقالة الحالية تناولت هذه التجربة الإدارية بشيء من التحليل والتفصيل. فبالإضافة إلى قضية التعريف والنشأة، استعرضت المقالة الملامح التنظيمية لحلقات الجودة اليابانية وطريقة عملها بوصفها جهازاً لحل المشكلات. كذلك تطرقت المقالة إلى مجموعة العوامل التي ساعدت في نجاح هذه الحلقات وانتشارها في عموم الصناعة اليابانية دون



أن تغفل المشكلات أو التحديات التي وقفت، وما تزال، عائقاً في سبيل الانتشار والنجاح الكامل لهذه الحلقات. وأخيراً، ناقشت الورقة قضية انتقال هذه التجربة الفريدة إلى المجتمعات الأخرى وأوضحت أن عملية الانتقال وإن كانت لا تسير دون صعوبات وعوائق تعترض سبيلها، إلا أن برامج حلقات الجودة اليابانية، شأنها شأن غيرها من التجارب أو الظواهر الإدارية الناجحة، محكوم عليها بالانتقال عن طريق العدوى.

## **Appendix F**

### **Approval Letter From Human Subjects Institutional Review Board**



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## WESTERN MICHIGAN UNIVERSITY

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Date: May 4, 1992

To: Abdulrahman Selaim

From: Mary Anne Bunda, Chair

A handwritten signature in cursive script, reading "Mary Anne Bunda".

Re: HSIRB Project Number: 92-05-05

This letter will serve as confirmation that your research protocol, "Effects of Western Education on Employees Participation and Job Satisfaction in Saudi Arabian Industries" has been approved under the exempt category of review by the HSIRB. The conditions and duration of this approval are specified in the Policies of Western Michigan University. You may now begin to implement the research as described in the approval application.

You must seek reapproval for any changes in this design. You must also seek reapproval if the project extends beyond the termination date.

The Board wishes you success in the pursuit of your research goals.

xc: Jenlink, EDLD

Approval Termination: May 4, 1993

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