A STUDY OF QUALITY CONTROL CIRCLE
IN
AN AUTOMOBILE SERVICE COMPANY IN HONG KONG

by

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ABSTRACT

The aim of introducing Quality Control Circle program in an automobile service company in Hong Kong was to attain the goal of 'better quality and efficiency'. However, due to the inadequate preparation for the introduction of the new concept to the automobile service industry and the company itself, the program has never been implemented satisfactorily and was found hard to be sustained. The research results indicated that there should be reinforcement and improvement in the top management support, middle management acceptance, the implementation procedure and a re-structure of the program before the program could survive and become beneficial.
TABLE OF CONTENTS

ABSTRACT ................................................................. ii
TABLE OF CONTENTS ................................................... iii
LIST OF TABLES ........................................................... iv
ACKNOWLEDGEMENT ....................................................... v

CHAPTER

I. INTRODUCTION ......................................................... 1

II. RESEARCH PROBLEM AND METHODS ................................. 3

  Research Problem ..................................................... 3
  Limitations ............................................................. 4
  Secondary Data References .......................................... 5
  Primary Data Sources ................................................ 5
  Design of Questionnaire .............................................. 6
  Survey Administration ............................................... 7

III. QUALITY CONTROL CIRCLES .......................................... 8

  History of Quality Control .......................................... 8
  Objectives of QCC .................................................... 12
  Concept of QCC ....................................................... 12
  QCC Meeting .......................................................... 14
  Sustaining QCC ....................................................... 14
  Some Guidelines for Successful QCC ............................... 16
  Causes of Failure of QCC .......................................... 16
  Hong Kong Experience ............................................... 17

IV. THE QUALITY CONTROL CIRCLE PROGRAM
    OF DAH CHONG HONG (MOTOR SERVICE CENTRE) LTD. ........... 20

    The Business ...................................................... 20
    The Organisation .................................................. 21
    Introducing QCC to the Company .................................. 24
    QCC in the Parts Division ........................................ 24
    QCC in the Service Division ..................................... 26

V. RESULTS AND ANALYSIS ............................................... 28

VI. DISCUSSIONS AND RECOMMENDATION ................................. 38

APPENDIX .................................................................. 49

BIBLIOGRAPHY ............................................................. 55
LIST OF TABLES

TABLE 1. ANSWER TYPE: FIVE POINT SCALE
TABLE 2. ANSWER TYPE: YES / NO
TABLE 3. CIRCLE LEADER SELECTION
TABLE 4. QCC MEETING FREQUENCY
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CHAPTER I

INTRODUCTION

Since being developed in Japan in 1962, Quality Control Circle (QCC) activities have attracted international notice and have been adopted in many countries worldwide. Hong Kong, without exception, has also imported the new concept in the early eighties of this century. The application area of the QCC in Hong Kong is still mainly concentrated in the manufacturing sector from which the circle concept was originated. There were many successful examples here. After several years of its existence in Hong Kong, the circle activities began to be employed in the fields, other than the manufacturing sector, such as inside the office for some clerical jobs. However, as to the automobile service industry, Dah Chong Hong (Motor Service Centre) Ltd, abbreviated to Dah Chong Hong, was the first one to attempt this experience in this service sector.

QCC has been implemented in Dah Chong Hong for two years. Before QCC was introduced, in certain departments, some regular short meetings were held to solve the work problems and sometimes might touch the sphere of quality control. Then QCC program was launched in its Parts Division and later the Service Division with the aim to attain 'better quality and efficiency'.
In this research, it is intended to carry out the investigation of the QCC program of Dah Chong Hong, evaluation of the current performance and find out if unfavourable factors exist to undermine the program. Finally, possible means to improve the current situation would be recommended to the Dah Chong Hong QCC.
CHAPTER II

RESEARCH PROBLEM AND METHODS

Research Problem

The introduction and application of Quality Control Circles to two divisions of the Dah Chong Hong have met with limited successes and somewhat defensive position has been taken by some levels of management.

The research will try to evaluate the current performance of the Dah Chong Hong QCC program with regard to the following aspects:
1. the implementation method and procedures
2. circle leaders' performance
3. circle members' participation
4. top management support
5. middle management acceptance and recognition

In addition to the above five main topics, the particular features which might influence the running of a QCC program such as the routine short meetings and management style etc will also be studied.

Through the overall review of the program by this study, it is intended to locate possible deficiencies and recommend possible solutions accordingly.
Limitations

There are several limitations to the research on the subject. To a certain extent, QCCs are new to Hong Kong and therefore, there are not many researches or papers on how they operated or how they should operate in the context of Hong Kong. Most of the available materials come from the West or Japan. Although some of their content might be applicable to Hong Kong, many of the findings would not be useful in the local environment owing to the cultural difference, methods of training, education levels etc.

Besides, the application of QCC concept to the automobile service industry is in its infancy in Hong Kong. As a matter of fact, such application is just at the point of starting and not many conclusions could be drawn.

Time available for the research has also been a problem. As this research has to be carried out in a short period of time, the literature survey and the actual survey might not be as exhaustive as desired. In addition, no pretest of the questionnaire was possible.

Moreover, as the management of Dah Chung Hong requested not to interrupt their shop floor business, the time-consuming but more informative interview with workers could not be done. Thus, workers' opinions on the QCC program were limitedly reflected.
Secondary Data References

In order to get a complete picture of QCC in Hong Kong, literature survey was necessary to review the general practice of QCC from 1981 to date and the practice of QCC in foreign countries in the past three decades. There were numerous secondary data sources available. Apart from the books, papers published in management journals or papers of international quality control conferences are available. Some of these are publications from famous pioneers in the field, for example, The Hong Kong Manager, ICQCC, ASQC, JUSE, The Hong Kong Quality Circle Association Ltd. and Hong Kong Productivity Centre etc.

In addition, a literature study on features such as the general education level of the employees, their promotion channel and the usual organisation structure of the automobile service set-up was completed in order to gain a more in-depth understanding of the industry.

Primary Data Sources

It was essential to understand thoroughly the company under investigation, the Dah Chong Hong including its organisation, the QCC program and other relevant information useful to our research. To achieve this, interviews with the top management and the QCC program co-ordinators were arranged. Questions would be asked on the purpose of the QCC program, how it was started and the difficulties encountered. By means of the interview, the effectiveness of the QCC program of Dah Chong Hong from the management's
point of view was obtained.

In addition to the interview, it was worthwhile to explore the QCC program from the viewpoint of the circle members, who were mainly the workers. Thus, a questionnaire survey approach was chosen for the sake of its cost-effectiveness. By means of the analysis of the collected data from the questionnaire survey, it was expected to reveal some findings which when combined with the data gathered from the interviews would give sources for further review of the QCC in Dah Chong Hong.

The Design of Questionnaire

There were totally six groups of questions in the questionnaire (see Appendix II). They are:

<table>
<thead>
<tr>
<th>Group</th>
<th>Area of Survey</th>
</tr>
</thead>
<tbody>
<tr>
<td>G1</td>
<td>Implementation of QCC - Training</td>
</tr>
<tr>
<td>G2</td>
<td>Circle leaders - their capability and attitude</td>
</tr>
<tr>
<td>G3</td>
<td>Circle members - their involvement</td>
</tr>
<tr>
<td>G4/5</td>
<td>QCC meeting and top management support</td>
</tr>
<tr>
<td>G6</td>
<td>Middle management support and attitude</td>
</tr>
<tr>
<td>G7</td>
<td>Achievements of QCC - working environment, job satisfaction, quality and communication</td>
</tr>
</tbody>
</table>

Among the six groups, eight questions were set in the form of five point scale with score '1' for 'Never' and score '5' for 'Always' at the two extremes while another eight questions only required a 'Yes' or 'No' leaving only two
answered in a different form. Thus, there were mainly two different types of simple answers for the respondents so as to let them work on the questionnaire more easily and hence quickly. The short question format helped the respondents in reading the questions and saved time because the survey had to be done during business hours.

The Survey Administration

The 80 questionnaires were passed first in the ratio 40 to 40 to the co-ordinators of the Parts Division and the Service Division for their subsequent distribution to the relevant circle leaders and department heads respectively and hence finally to the hands of the circle members. The time for completing the questionnaire was chosen to be during a circle meeting so as to ensure a higher return rate and more attention. The respondents were not required to sign their names in the questionnaire to encourage true information feedback. Before attempting the questionnaire, the circle leaders concerned were instructed to brief the employees on the structure and the purpose of the survey, so that misunderstanding of the questions and undesired reactions could be minimized. As a result of the type of questionnaire design and the precautions taken, all the questionnaires could be completed within ten minutes.
CHAPTER III

QUALITY CONTROL CIRCLES

History of Quality Control

Quality Control (QC) was originated in America as Statistical Quality Control (SQC), which proved effective in controlling the quality of manufactured goods. It was called SQC because it was based on statistical techniques such as control charts and sample inspections.

QC was introduced to Japanese companies after World War II by Dr. W. E. Deming and Dr. J. M. Juran of America. In Japan, QC proved to be a vital managerial tool for manufacturing products of stable quality. The ultimate goal, of course, was to manufacture goods that would meet consumers' requirements for quality. To achieve this ultimate goal, wastage of materials, labour, overhead and other causes of low quality had to be eliminated.

However, there were problems in early QC activities in Japan because of social, cultural and business differences of Japan versus America. To solve these problems, the Japanese began to develop around 1955 QC activities suited to the circumstances of their country. The result was


2 "Work Improvement Teams" - The Hong Kong Version of Quality Circles & Their Applications in the Public Sector Alice S.Y.L. Lui CUHK
Total Quality Control (TQC). One major reason for the emergence of TQC was the overall consumer services—including the guarantee of product quality, product development and sale, and scrupulous after-sales service. In other words, the whole company came to seek improved QC. The TQC adopted and improved by the Japanese is performed by employees in all sections of the company. Thus Japanese TQC is called Company-wide Quality Control (CWQC).

CWQC is characterized by small group, or Quality Circle or Quality Control Circle (QCC) activities. Small group activities are activities performed by a small group of employees functioning independently to improve the company's productivity, product quality, working conditions and management.

The basic ideas of QCC activities are as follows:—

(1) To contribute to the improvement and development of the company.

(2) To respect humanity and to create satisfying employment and a happy, bright work place for employees.

(3) To display human capabilities fully and to draw out human potential.

A QCC should be organised by workers with a sufficient knowledge of the basic ideas. In organising a QCC, the following steps are quite important:

1. Study publications about QCC activities.

1 "Invitation to TQC (Part I - VI)" Special Issue Nissan Group, Japan 1984
2. Observe actual circle activities.
3. Consult with company top management, superiors and colleagues who are potential members.
4. Select a leader.

And the QCC leader should be a person:
1. with persuasive power and leadership ability.
2. capable of creating harmonious relations and of containing his emotions.
3. with some knowledge about QCC and its methods.
4. with sufficient technical knowledge, skill, and experience in his work section.

In general, the ideal size of a QCC is five to seven members including the leader.

Within the QCC structure, there are usually some facilitators who are responsible for making integration of program easier at all levels. The role of the facilitators in QCCs is a vital and control one. There are no absolute rules as to from what part of the business that he/she should come or indeed his/her characteristics as an individual. Successful facilitators have worked in every type of development. It is clear, however, that the better the facilitator, the more successful will be the programme and that good facilitators do seem to have common characteristics. Some of them are:-

1. they are genuinely enthusiastic about the approach and their enthusiasm 'bubbles over' and transmits itself to others.
2. they tend not to be cynical people, not only in relation
FIGURE I

GENERAL STRUCTURE OF ORGANISATION OF QCC
3. they have the ability to communicate clearly and accurately to people at many different levels of the company and to see things from other people's point of view.

4. they usually have a well-developed capacity for enjoying the work and helping others to enjoy it well.

Objectives of QCC

The objectives of QCC are basically three-fold. They are staff involvement, people development and the generation of tangible benefits.

The staff involvement and development of people in the organisation are quite important. QCC undoubtedly promotes the development of staff, through acquisition of new skills and the opportunity to work together on 'real world' problems, and they also help supervisors to build their problems-solving-skills and their abilities in working and leading small groups.

The generation of benefits for the organisation and the people in it cannot be neglected. The evidence suggests that QC programs tend to be cost effective, and, sometimes dramatically so.

Concept of QCC

To many people, there is always a range of misconceptions held about QCC. QCC is actually a process mechanism and should not be confused with other vehicles for solving
problems and making the most of opportunities. Many people are concerned about what happens to Quality Circles when the first flush of enthusiasm has died away.

The QCC concept is universal with literally millions of people involved covering all continents of the world. Though QCC first developed in Japan during the late 1950 and early 1960, the approach is based on western theories of management, notably Douglas McGregor's 'Theory Y'.

The concept of QCC\(^1\), in a sentence, Quality Control Circle is an approach which allows employees to became more involved by solving their own job-related problems in an organised way.

QCC is a process which allows people to become more involved, but puts no pressure on them to do so. In other words, the approach is entirely voluntary at all levels of the organisation. If a manager objects to the concept there will be no QCC in his department until he changes his mind. This principle of voluntariness is crucial to the success of QCC.

The QCC approach is that the people who join in are encouraged to solve their own job-related problems. Its definition is that the members solve their problems in an organised way. In other words, they are given training in the skills of systematic problem solving and of working together effectively in a group. QCC is probably the only approach which gives such training to non-supervisory staff.

\(^1\) "Invitation to TQC (Part I - VI)" Special Issue Nissan Group, Japan 1984
It is difficult to see how a QCC program could really succeed without training being an integral part of it.

There are some particular characteristics of the QCC approach. QCC is a natural workshop approach as distinct from a task-force or project-group process. Project groups are task-specific and therefore their effective life-span tends to be related to the problem they are solving. The group does not need to consist of the entire workforce from that section.

QCC Meeting

QCC meeting is a major item of QCC program. The groups have to meet regularly, say once a week, for an hour, and in paid time. Once a week is a good practical balance between the desire to get on with things on one hand and the need to ensure that the workforce in the section is not adversely affected on the other hand. The groups, at their meetings, do not stop simply at the identification of problems for passing on to management, but go on to develop their own solutions.

Sustaining QCC

There is always a question in QCC - How QCC are maintained, either after the first flush of enthusiasm has died away, when there is newer and more immediate pressure on people's time, or when all the problems have been solved. Many companies, however, become worried after a short time when the initial gloss has worn off, even though in fact this stage represents the end of the beginning rather than
the beginning of the end.

In practice, there is more than one danger period, but the first is usually the most difficult to cope with, and this usually comes some time between one and two years after the launch.

Two important points about starting new circles are that the rules of the approach must be observed at all costs, and that there must be adequate resourcing available, in the shape of a facilitator, to help the new groups to get off the ground.

Any QCC program should have an active and carefully thought-through communication strategy, which should include 'advertising' both the concept itself and the success of the groups. In the event of one or two groups, falling by the wayside, it may be appropriate to use this medium to encourage more groups to form and thus to use all the available facilitator support.

To sustain QCC, firstly, the co-ordinator and facilitator should plan to be able to expand the programs, given sufficient volunteers, and to achieve this within eighteen months or so. Secondly, it must be recognised that some groups will be successful enough ultimately for the remaining problems in their area to be so trivial that they are not very compelling to work on. QCC is not only there to deal with problems, they can look at any topic within their area that they believe they can influence positively.

Finally, with the help of their facilitators, there will be ultimately more situations wherein groups are ready to
tackle genuine interface problems with another group, and this obviously would help to broaden their scope.

Some Guidelines for Successful QCC

There are some guidelines worthy of consideration, that may promote more successful QCCs. They are:

1. QCC and any other genuinely participative mechanism, involves a high level of trust in people within the organisation.

2. The process of training and informing is vital and that the requirement does not stop. It must become a central and permanent part of the organisation's culture.

3. The whole process is a permanent one and that it is likely to be three to five years before an organisation reaches a point which could be called 'the end of the beginning'.

4. Change of the type of management due to QCC affects the whole of the organisation, and thus, the organisation has to be prepared for it.

Causes of Failure of QCC

There are many reasons for something that fails. One of the chief causes of difficulty, then with the Quality Circle approach is the failure of some companies to think fully through the meaning and implications of developing an open and participative style of management.

Another common cause of failure with the concept is the non observance, either conscious or unwitting of some organisations of the long-established 'rules' which underpin
A third cause of failure is inadequate resourcing. The people who will play an active role as members of QCCs are unlikely to have been involved in such activity before.

Hong Kong Experience

QCC has taken root in Hong Kong since early 1980. In 1981, the Hong Kong Productivity Centre (HKPC) took the effort to introduce the concept of QCCs into the minds of the Hong Kong management. In September 1981, Japan held an international convention on quality circles so that management from all over the world could sit together to exchange their experiences. HKPC was to organise a study mission to join the convention and to visit practising companies in Japan. The trip was a successful one and nineteen representatives from the companies joined the mission. It turned out at the end that many of them started QCC in their own companies.

In March 1981, Dr. K. K. Tse, the Personnel Manager of Lam Soon (H.K.) Ltd., attended a conference on QCCs in Kuala Lumpur. Dr. Tse became a great promoter of QCC in Hong Kong and carried out considerable research and study on the introducing and adapting QCCs in Hong Kong. Dr. Tse has written a number of articles and discussed in various

1 "Current Development of Q.C. Circles in Hong Kong" M.K. Cheung, Proceedings of International Convention on Quality Control Circles '82 - Seoul

seminars organised by some associations and companies including the Hong Kong Management Association (HKMA) and the Hong Kong Industrial Relations Association (HKIRA).¹

Subsequent to the workdone of various pioneers, HKIRA also held an Asia Quality Circle Conference in November 1981 which further promoted QCC and attracted the attention of many local managers. The participants at the conference decided to form the Hong Kong Association of Quality Circles.²

Over the past few years, a number of organisations chose to implement QCC. Many of them found QCCs were useful and yielded the expected results while many others found QCCs had a lot of inherited problems. In either case, the following factors were common:³

1. Lack of training of circle members and leaders
2. Apathy on the part of members
3. Noncooperation of supervisors
4. Distrust and fear of the QCC concept by middle management

¹ "Harnessing Quality Circles for Higher Quality and Productivity, Lessons from Japan" Hong Kong Industrial Relations Association, 1981 P. 1 - 20

² The First Hong Kong Quality Circle Convention 1985, Hong Kong Quality Circles Association.

³ "Current Development of Q.C. Circles in Hong Kong" M.I.C. Cheung, Proceedings of International Convention on Quality Control Circles' 82 - Soeul
5. High turnover rate of circle members
6. Low education level of workers
7. Lack of patience on the part of top management
8. Lack of confidence on the part of employees in the QCC activities.
CHAPTER IV

THE QUALITY CONTROL CIRCLE PROGRAM
OF THE DAH CHONG HONG (MOTOR SERVICE CENTRE) LTD.

The Business

The Dah Chong Hong (Motor Service Centre) Ltd. was established in 1972 and aims at providing the best repair and maintenance services as well as the ample supply of spare parts for car and industrial machine owners who patronize the Dah Chong Hong Motor Group (Appendix I). To achieve the Company's long term goal - "Customer First, Service the Best", their experienced and skillful technicians operate a service network. This service network is equipped with modern installations, special tools and advanced equipment including wheel aligners, brake testers, computer engine analysers, chassis dynamometer, automatic parts cleaners, automatic under chassis washing machines, wheel balancers and diesel fuel injection pump test benches etc. to render fast and quality service to the customers.

The company is also the pioneer in providing 24-hour vehicle repair and maintenance services in Hong Kong, Kowloon and the New Territories. At present, there are in total four service centres situated at Quarry Bay, Kowloon Bay, Tsuen Wan and Yuen Long. The number of employees exceeds 1550. Over 110,000 vehicles were serviced in the four service centres in 1986.
The Organisation

In addition to the departments responsible for the repair and maintenance activities of trucks, passenger cars, and industrial machinery, the following departments also play an important role in the organisation.

The PARTS DIVISION headquarter and main godown are housed in the Quarry Bay Service Building and Kowloon Bay Service Building respectively. There are five depots and four sales counters which are associated with the service centres. The space parts inventory consists of nearly 210,000 items worth HK$100 million. It has been computerized since 1978. An on-line computer system with 65 terminals is being used for sales and inventory control. Invoice and stock transfer notes are also printed by on-line printers.

The NEW VEHICLE DIVISION is mainly responsible for the transportation, storage, maintenance and pre-delivery inspection of all new vehicles represented by the DCH Motor Group.

The BODY CENTRE performs tasks such as body repair and vehicle refinishing. The main workshop is in Kowloon Bay Motor Service Centre. There is also well-equipped body workshop in each service centre to be responsible for minor body repairs.

The CHINA BUSINESS DIVISION was formed in 1984 to promote motor service in China by means of a joint venture relationship with related units in China. Four joint
ventures, namely, Guangzhou-Dah Chong, Hangzhou-Dah Chong, Beijing-Dah Chong and Shenzhen-Dah Chong have been formed. Another four joint ventures in Wuhan, Kunming, Xian and Taiyuen are under planning for opening in near future.

The OPERATION RESEARCH DEPARTMENT is responsible for the following functions:

1. To analyse current organisational structure, to study work flow and the operational system and to make suggestions for possible re-organisations or improvements.

2. To participate in the development of computerized system of the Service Division and review the system from time to time and to plan for future business development with reference to the monthly management reports.

3. To plan and analyse the future need of new facilities, tools and equipment and their related maintenance programs.

4. To train administrative executives.

The PRODUCTION DEVELOPMENT CENTRE is responsible for the following functions:

1. To prepare and submit technical reports and warranty claims to principal manufacturers;

2. To translate technical and service bulletins, prepare and compile service handbooks, and provide technical assistance in solving special service problems;

3. To provide technical training courses for mechanics, parts personnel, service advisors, vehicle owners as well as customers in China and Macau, organize advanced courses to update senior mechanics and technicians and liaise
with the Labour Department of Hong Kong Government and technical institutes;

4. To monitor examinations for A-grade mechanics.

The PUBLIC RELATIONS DEPARTMENT acts as a bridge between the public and the Company. It liaises with customers so as to handle their complaints and collect information for making improvements and coordinating the activities of various concerns, such as Service Fortnights and Campaigns. Moreover, it organises and conducts business tours for guests and provides every possible assistance for overseas visitors during their stay in Hong Kong.

The Passenger Car Service Department, the Truck Service Department, the New Vehicle Division, and the Body Centre are collectively called the Service Division so as to distinguish them from the other business activities of the Company i.e. the parts supply.

By the nature of technical service, the Company employees are mainly technically-oriented. The education level of such blue-collar work force is generally Form 5 standard or below. They usually come from apprenticeship training schemes jointly held by the company and the Vocational Training Centre. Even up to and including the middle management level, the education level is on average at Form 5 standard because most of the middle management personnel got their senior positions by internal promotion from clerks and technicians through long time of service with the company.
Since the company is a wholly-owned subsidiary of Dah Chong Hong Ltd, which is a typical Chinese family business, the management style of the company is rather autocratic instead of open and participative. Because of this, two-way communication between upper and lower levels is rather limited.

**Introducing QCC to the Company**

In the beginning of 1986, the top management announced that the objective of the year was 'higher quality and efficiency'. The Operation Research staff of the Parts Division carried out various studies such as customer opinion survey and time study etc to find some ways to achieve that goal. QCCs came to the minds of some of them who had attended the first conference of QCC in Hong Kong. The Operation Research staff then proposed the concept of QCCs to top management, who showed keen interest and support to the implementation of QCCs. The Parts Division was chosen to be the first division to start QCCs.

**QCC in the Parts Division**

The Parts Division is composed of five departments, namely, Administration, Warehousing, Sales, Inventory and Information departments. Ten QCCs were formed from the nine depots and the Information Department. Circle leaders and secretaries were elected among circle members. Staff were encouraged to participate in the QCC voluntarily. The company also organised a training course of eight half-day
lectures for all circle leaders and some members. The
lectures were concentrated on the functions of each role in
the circle and the QCC techniques so as to enable the circle
leaders to guide their own QCC meeting effectively. The
Operation Research staff of the Division played the role of
steering committee who evaluated the opinions generated in
QCC and sorted out the feasible ones for management's
consideration. For the non-feasible opinions, they would
explain in details to the QCC concerned on why the idea was
turned down or discuss it further with them.

In the initial stage, the QCCs opinions were mostly
associated with the workers' own benefits such as more
favourable working environment and conditions. After
evaluation, the steering committee decided to send one of
its members to attend each QCC meeting so as to guide the
meetings to align with the goals of QCCs.

QCC meetings were held during office hours and usually
lasted from one to two hours beginning normally from
3:00 p.m. The steering committee kept track of the QCC
meetings and encouraged each circle to meet at least once a
month.

However, it was found that only four circles held meetings
regularly while the remaining circles were found inactive.
Among the relatively more active circles, three of them were
large sales depots composed of more staff and the other was
the Information Department to which a member of the steering
committee belonged.
There were around 20 cases submitted to the steering committee and about one-third of them were accepted. However, most of the cases were generated from two circles.

**QCC in the Service Division**

After the QCC program had been launched in the Parts Division for about two months, the top management felt that it was possible to extend the program to the Service Division so as to enhance better quality and efficiency of the company. Thus, the steering committee of the Parts Division was asked to arrange a half-day lecture to the heads of the individual service departments such as truck and passenger car service departments etc. and some relevant staff about the brief concepts and technique of QCCs. It was hoped that the attendants could convey the QCC messages correctly to the staff below and help to implement the QCC program in the Service Division smoothly.

A QCC promotional plan using posters was initiated in order to make the QCC in the Service Division more actively accepted. Posters, emphasizing free communication of opinions and basic QCC spirit, were put in every workplace and played an important role in monitoring all level of this plan, an essay written about QCC and its implementation in the company was printed in the company's monthly bulletin.

Unlike the QCC in the Parts Division, there were no specific QCC meetings in the Service Division. Before the adoption of QCC program, the task groups in the Service
Division had already held regular short meetings once a week or even daily. Each task group was usually composed of 10-20 workers and foremen. Workers must join in the group meeting as long as they did the same work. The purpose of such meetings was to solve the daily work problems. The introduction of QCCs was to encourage the workers to actively speak out about the work problems they faced and place more emphasis on quality and efficiency.
CHAPTER V

RESULTS AND ANALYSIS

Of the 80 questionnaires sent out, the resulting situation is summarized as follows:

<table>
<thead>
<tr>
<th>Service Division</th>
<th>Parts Division</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of questionnaires out</td>
<td>40</td>
</tr>
<tr>
<td>No. of questionnaires returned</td>
<td>38</td>
</tr>
<tr>
<td>No. of questionnaires void</td>
<td>3</td>
</tr>
<tr>
<td>No. of questionnaires valid</td>
<td>35</td>
</tr>
<tr>
<td>% of questionnaires valid</td>
<td>87.5%</td>
</tr>
</tbody>
</table>

The return rates were high as the questionnaires were distributed through the co-ordinators and collected systematically. 73 questionnaires were usable while the rest were discarded for incompleteness and misunderstanding some of the questions.

Table 1, 2, 3 and 4 summarize the results with respect to the answer types. Since the implementation of QCC program and its nature in the Service Division and the Parts Division were different, the responding data of the two divisions were shown separately to make the analysis more clear and easier to understand.
### TABLE 1

**ANSWER TYPE: FIVE POINT SCALE**

<table>
<thead>
<tr>
<th>Question No.</th>
<th>Average Score</th>
<th>Service Division</th>
<th>Parts Division</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q.1.2</td>
<td>3.7</td>
<td></td>
<td>4.5</td>
</tr>
<tr>
<td>Q.2.2</td>
<td>3.4</td>
<td></td>
<td>4.0</td>
</tr>
<tr>
<td>Q.3.2</td>
<td>3.1</td>
<td></td>
<td>4.2</td>
</tr>
<tr>
<td>Q.4.2</td>
<td>1.0</td>
<td></td>
<td>1.0</td>
</tr>
<tr>
<td>Q.4.3(^a)</td>
<td>2.2 for 25 respondents 'Unsure' for 10 respondents</td>
<td>2.4 for 30 respondents 'Unsure' for 8 respondents</td>
<td></td>
</tr>
<tr>
<td>Q.5.1</td>
<td>1.0</td>
<td></td>
<td>1.0</td>
</tr>
<tr>
<td>Q.6.1(^a)</td>
<td>2.3 for 23 respondents 'Unsure' for 12 respondents</td>
<td>2.6 for 28 respondents 'Unsure' for 10 respondents</td>
<td></td>
</tr>
<tr>
<td>Q.6.2</td>
<td>2.0</td>
<td></td>
<td>4.2</td>
</tr>
</tbody>
</table>

\(^a\) A significant number of respondents did not answer in the preset way but wrote down 'Unsure' instead.
**TABLE 2**

**ANSWER TYPE: YES / NO**

<table>
<thead>
<tr>
<th>Question No.</th>
<th>% of the Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Service Division</td>
</tr>
<tr>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>No</td>
</tr>
<tr>
<td>Q.1.1</td>
<td>0.20 0.80</td>
</tr>
<tr>
<td>0.1.3</td>
<td>0.93 0.07</td>
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<tr>
<td>Q.3.1</td>
<td>0.00 1.00</td>
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<tr>
<td>Q.5.2</td>
<td>0.80 0.20</td>
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<tr>
<td>Q.7.1</td>
<td>0.97 0.03</td>
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<tr>
<td>Q.7.2</td>
<td>0.29 0.71</td>
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<tr>
<td>Q.7.3</td>
<td>0.06 0.94</td>
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<tr>
<td>Q.7.4</td>
<td>0.14 0.86</td>
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### TABLE 3
**CIRCLE LEADER SELECTION**

<table>
<thead>
<tr>
<th>Method</th>
<th>No. of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Service Division</td>
</tr>
<tr>
<td>Election inside circle</td>
<td>0</td>
</tr>
<tr>
<td>Appointed by company</td>
<td>35</td>
</tr>
<tr>
<td>Total</td>
<td>35</td>
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</table>

### TABLE 4
**QCC MEETING FREQUENCY**

<table>
<thead>
<tr>
<th>Frequency/Month</th>
<th>No. of Respondents</th>
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</thead>
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<tr>
<td></td>
<td>Service Division</td>
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<tr>
<td>Irregular</td>
<td>0</td>
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<tr>
<td>0 - 1</td>
<td>7</td>
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<tr>
<td>2 - 3</td>
<td>0</td>
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<tr>
<td>more than 3</td>
<td>28</td>
</tr>
<tr>
<td>Total</td>
<td>35</td>
</tr>
</tbody>
</table>
Analysis of the Survey Results

Group I: Implementation of QCC - Training

80% of the respondents from the Service Division replied that they had not received any training of QCC basic techniques while, on the contrary, about 82% of those from the Parts Division confirmed that they had training. As mentioned in the last chapter, training in the Service Division was only limited to department heads and the course was a half-day session. Owing to the fact that the department heads have limited education standard, it was not easy for them to absorb the huge amount of QCC techniques in such a short time and grasp fully the whole idea of QCC. Thus, as reflected by the co-ordinator during the interview, he found that not too many of the department heads could in turn train their subordinates or circle members. The situation was comparatively more favourable in the Parts Division and they had a much longer training time. The steering committee of the Parts Division also published their own training materials to assist the circle leaders and members to understand the QCC concepts and its tools. In general, the training had been better in the Parts Division. The co-ordinator of QCC in the Service Division also admitted that there was very inadequate training.

Members from the Service Division and the Parts Division who received training agreed that the training was useful for them during QCC activities. However, the Parts Division got higher scores than the Service Division. This indicated that the more complete or extensive the training was, the
more useful it could be. On the other hand, most of the respondents who were not trained for QCCs would prefer to have training. Hence, it could be assumed that they had encountered difficulties in solving and analysing problems during QCC activities and found that they needed some techniques to improve the situation. Again, this further indicated that training was essential to QCC.

Group 2: Circle Leaders - Their Capability and Attitude

Regarding the selection of circle leaders, the company had no pre-determined policy. In the Service Division, as the QCCs were evolved from the original task groups, the task group leaders, who were appointed by the company because they were senior in position, became circle leaders automatically. In the Parts Division, they followed the QCC basic requirement to have the circle leaders elected among the circle members.

The circle leaders in the Parts Division were relatively more capable as the average score of the Parts Division was quite high. This might be due to the fact that the leaders of the Parts Division were elected by members and hence fully supported by them. Besides, they usually were easy-going and could handle personal relationship more smoothly. The score of the Service Division was also about average. However, it was not as high as that of the Parts Division. The leaders in the Service Division carried out the company policy to promote QCCs but whether it was effective or not, largely depended on the quality of the leaders and their
relationship with the members.

Group 3: Circle Members - Their Involvement

In the Service Division, since the QCCs were evolved from the regular task groups, members of those task groups became members of QCC automatically instead of by voluntary action. On the contrary, most members of the Part Division's QCCs joined the QCCs voluntarily as the steering committee encouraged them to do so. However, still some responded that they did not voluntarily participate in QCCs. This might be due to the fact that there were very few staff in certain small depots and hence all staff were required to join the QCC in order to enable QCC operation.

The voluntary participation of the Parts Division encouraged their circle members to become more involved and more willing to give their own opinions during QCC meetings. This was indicated by the relatively higher scores of the Parts Division on Question 3.1. Thus, it revealed that voluntary participation was another requirement for the success of QCCs.

Group 4/5: QCC Meeting and Top Management Support

Again, since the QCC meeting of the Service Division were evolved from previous regular meetings, they could be held regularly as before. On the other hand, QCC meetings of the Parts Division were held during office hours in which most circles faced the non-stoppable counter sales and hence were much affected by the daily business. As a result, irregular meeting schedule was formed in QCC of the Parts Division.
Regarding the top management support, it appeared that the circle members did not feel such support as both divisions showed low scores in Questions 4.2 and 4.3. A significant number could not be sure whether they were supported by the top management. However, the co-ordinators of both divisions insisted that the program had received top management support. One example was that the top management required the department heads to report the progress of QCCs in the management meetings, especially during the initial stage of QCC program. This reflected that communication between levels were not satisfactory and certain improvement measures on this should be introduced.

No tangible rewards or recognition in other forms for constructive opinions or suggestions reinforced the feeling of no top management support in the minds of circle members. As reflected by the co-ordinators, top management did not agree to give any tangible reward for the constructive ideas because they were afraid that it might mislead the QCC members about the original QCC spirit. The co-ordinators also found that motivation was therefore weak and many QCC members considered the program as an extra and non-rewarding job. Most of the respondents desired to have reward in the QCC program. This was not surprising because people in Hong Kong, in general, have a strong belief that extra effort means extra reward. They therefore believed that if there could be some reward, they would try to propose something. It would not be unusual for the blue collars whom the circle members are to look forward to
materialized reward rather than self-respect or self-esteem etc. This differs from the QCCs in Japan where most of the employees consider their jobs as life-time employment and realize that helping the company helps them in the long run instead of looking for short-term materialized reward or incentive.

Group 6: Middle Management Support and Attitude

The results from the Question 6.1 were not favourable. Firstly, the circle members could not be sure that their department heads would transmit their suggestions. Secondly, they believed that their department heads were not willing to revert their opinion to the top management. This showed that the attitude of the department heads towards QCCs were not so encouraging or, at least, in the minds of the circle members, they did not deliberately help the QCCs and fully support its activities. In this respect, according to the co-ordinators, one of the major difficulties was that middle management such as department heads and depot heads etc. did not support the program. It was because they did not believe in QCC or any management theory. Business was the utmost thing for them. Such argument was made more concrete by the fact that the department heads, especially those of the Parts Division, always postponed or cancelled QCC meetings because of the heavy workload. Although it appeared that the occurrence of cancelling or postponing the QCC meetings was comparatively small in the Service Division, no conclusion for middle
management support could be drawn because these meetings were originally the task group meetings. Department heads were required to report the problems raised in those meetings during management meetings. Thus, they could not cancel or defer meetings so easily.

Group 7: Achievement of QCCs - Working Environment, Job Satisfaction, Quality and Communication

Most of the respondents agreed that there were improvements in their working environment and they put more emphasis on the quality after the launch of QCC program. It was very natural to find improvement in working environment since such topics were directly related to the benefit of the circle members and was the one on which the circle members over-concentrated during the initial stage of QCC. Many cases about the working environment were submitted for the management's consideration as pointed out by the co-ordinators during the interviews.

However, concerning the job satisfaction and the communication between peers or supervisors, the respondents thought that there was no significant achievement. This is alarming as certain improvements on the two things were usually found if the QCC program was implemented correctly. Thus, it deserves more attention to find out the causes and make some rectifications accordingly.
CHAPTER VI

DISCUSSIONS AND RECOMMENDATION

Training

From the result of the survey, it was found that training had been inadequate for the general QCC members or the leader. Training was not sufficiently comprehensive. One reason for the problem of training in the automobile service industry is that, in general, the education standard of the employees in the industry is comparatively low. It is not an easy job to train all of them quickly in a short time.

Training has been found to be very important in QCC program and is a continuous process.

In the QCC program of Bank of America, training has been considered as an essential part of a successful QCC program, but it should not stop after the initial facilitator and leader courses. Regular facilitator workshops are held to ensure an interchange of information and to share experiences. For those circles which have been sufficiently equipped with the basic techniques, advanced training courses would give a wider scope and a bigger challenge in their problem solving.

1 Getting Going: Bank of America, Jean Hills Quality Circles in Action P. 80

The Bank of America case, coming as it does from a service industry, clearly gives the tie to the commonly-held view that Quality Circles are only relevant in manufacturing industry.
A similar conclusion was drawn by May and Baker about training. It was found that when a certain stage has been reached, a significant new effort was then being made to expand on progress into new areas. This would involve a further concentrated training program. Same conclusion was reached with Alcan Plate Aluminimum Work which training was considered to be a permanent feature with additional inputs being provided progressively as the groups developed their skills in diagnosis and analysis.

Therefore, in our study, we would recommend the following steps to be taken:

(a) To provide external training to some better-educated staff, by sponsoring them to courses or seminars on Quality Control Circles held by HKAQC, HKMA, HKPC etc.
(b) To employ consultants to provide a full training program in house to all staff.
(c) With the help of the trained staff, provide a simplified training program to the general circle members to suit their education standard.

1 Keeping going II: May and Baker, Dianne Moon and John Drinkwater Quality Circles in Action P. 114
May and Baker is an international organisation which employs approximately 4,000 people in the United Kingdom. Its operations include the manufacture of agro chemicals pharmaceuticals, animal health products, industrial chemicals, laboratory chemicals and photographic products.

2 Suspending Quality Circles: Alcan Plate, John Bank Quality Circles in Action P. 136
ALCAN is the short name of Alcan Aluminium Limited of Canada, a multi-national based in Montreal, whose main business is aluminium, from the mining of ore to the production and sales of numerous finished products.
Promotion

It appeared in our study, promotion of QCCs had not been active in Dah Chong Hong. Some means should be organised to better the promotion and to keep the staff informed of the progress of the program. Probably, ideas of others could be borrowed and modified to suit the local environment.

In the Bank of America, a QCC newsletter is published monthly giving update on circles' activities through out the bank and is distributed via the circles to all employees. Similarly in Bally Shoes, advertising has been considered an important factor. Everyone would like to know what has been going on in his own circle or others. Firstly, the rest of the workforce was kept informed, interested, and, secondly, the circle members could see that what they were doing was appreciated and noted by the management. There was newsletter every six weeks or so to let everyone know what had been going on - problems solved, as well as problems being worked on. Through this newsletter, QCC became part of the normal working life at Bally. Management has been supportive throughout the company and everyone is trying to monitor progress even if he/she is not a circle member. Thus, it's better for Dah Chong Hong to inform QCC activities through its monthly bulletin. Similarly, a notice board for such purpose could also be very useful.

1 Preparing the Ground II: Bally Shoes, Bob Marston and Lesley Rudd Quality Circles in Action P. 27
Bally is a brand-conscious manufacturer of high-grade ladies' fashion footwear, although recently the company has diversified into the manufacture of men's shoes.
Facilitators

In our survey, it was found that the structure of QCC in Dah Chong Hong caused some confusion and deviated from theory. There have been insufficient number of facilitators and coordinators. The members of the 'Steering Committee' had to supervise the circle leaders directly.

Research into QCC conducted have indicated that a primary reason for the failure of QCC programs has been the lack of facilitators or insufficient skills amongst those fulfilling the role. In some ways, QCC invite employees to change habits of a lifetime in joining their groups. For most members, it will be their first exposure to such a way of working, and there is no doubt that most groups do require assistance, back-up and support, especially in the early months. Without the enthusiastic commitment and support offered by the facilitator, groups in their early stages will often begin to lose the discipline of the approach, to miss meetings, and to forget the problem-solving structure. Since the facilitator's contribution is so crucial, it is not merely enough to have someone who is willing to undertake the role. A considerable amount of training and development is required by most people if they are to be successful in the job.

It has been concluded at Bally Shoes that if the facilitators were not around in the early stages to see what meeting happen, then the program could all too easily begin to crumble.

Moreover, it is also very important to have a team of
trained facilitators rather than only one. In May and Baker's case, since there was only one full-time facilitator, the whole program was off-track when he left the company.

Circle Leaders

In Dah Chong Hong, QCC leaders in the Parts Division, were elected among the members while in the Service Division, were 'appointed'. Leaders elected among the members usually had the support of members and could operate the circles with greater support and cooperation. However, care must be taken to involve the supervisor. QCC is an approach which may cross the normal line structure. It does not set up an alternative organisation which could only serve to confuse and frustrate. It is equally the case that if the supervisor is not committed to the approach, it will not work, since he would be more likely to react negatively to ideas proposed by the group.

Although, theoretically, QCC leaders should be elected among members irrespective of their rank in the company, it would be more appropriate to start with the supervisors as leaders. When the circles are mature, the supervisor could come down and any potential member could take their place as QCC leaders.

Steering Committee

At present, the only control in Dah Chong Hong QCC is the 'Steering Committee' under the Operation Research Department. It would be better if the committee involved representatives from top management or other departmental
managers so that the QCC could be understood by the whole company and consent from every department head would certainly enhance better functioning of the circles.

Circle Members

In Dah Chong Hong QCC, members are in general, joining the circles voluntarily in the Parts Division but compulsory in the Service Division. The idea of QCC is to allow members to join freely into circles and raise their problems instead of setting to solve pre-determined problems. It is not always necessary at the beginning, to require everyone to join in one circle or every division, department or section have their own QCC. In fact, it may be advisable to begin with some experimental circles for those who are really very interested in the idea. As time goes by, if the experimental circles prove themselves fruitful, people will then form their own circles or be encouraged to join in the established ones.

In Dah Chong Hong, especially in the Service Division. QCC meetings have been also mixed up with the task group meetings. It would be advisable to cancel the task group meeting and leave the team members free to join in a circle or form their own circle. By that way, members who join in are those who are really interested in the program. The atmosphere would be more active and the progress would not be slowed down by those who have no interest at all.
Incentive Scheme

Some think that incentive or reward is not necessary in a QCC program or might be harmful to the development. However, there might be some problems in Hong Kong environment in which people are not working for life-time jobs. Most people feel the need for appreciation and the circle members are no exception. Whilst the circles receive support from their managers and encouragement through the interest shown by the management, it is always advisable for the senior management to make an overall excellence award.

In many circumstances, the QCCs are invariably interested in 'keeping score' of their achievements and this usually implies being interested in achieving tangible benefits of one kind or another. On the other hand, it has to be recognised that QCCs do cost the organisation a substantial amount of money. Most organisations, therefore, will hope for some payback in tangible terms as well as the more intangible benefits of involvement, development, satisfaction and morale. Therefore, talking about intangible is not completely wrong.

However, the key is to recognise that tangible benefits really are not the first in order of importance and that pressure should not be put on groups to work on problems which are likely to yield financial benefits.

Top Management Support

It appears that in Dah Chong Hong, there was the initial support from the top management but the support was not
consistently maintained and felt by the employees.

A vital point about the commitment of top management is that, if it is not visible and believable, it may as well not be there. Moreover, there are programs where senior people are genuinely committed and yet they find it extremely difficult to communicate the depth of the belief to the workforce. As with all life, it is people's own perceptions that determine how they respond. If staff do not believe that their boss is committed, that is the reality the boss has to live with. This has been the situation Wedgewood\(^1\) faced with. To manage it, Wedgewood management has been able to state their commitment clearly and in a way that is tangible and credible and the result is clear to see.

The same conclusion was drawn by May and Baker too. There appears to be a direct relationship between success and the active and overall commitment of management. It has been interesting to note how sensitive members of staff have been to the style of their managers and how they seem to take this into account when finding their view about the QCC approach. Groups that perceive their managers as negative will often claim that it is not worth their forming a group and even if they do decide to go ahead, they will sometimes do so with a somewhat fatalistic attitude.

As discussed above, management commitment is vital, but management need to do more than that just say they are

\(^1\) Keeping going I: Wedgewood, Dick Fletcher

Quality Circles in Action P. 91
supporting QCC. They have to demonstrate their support. A valuable feature is that they can constantly make speeches, arrange presentations on occasions of QCC achievements and provide incentives as mentioned above.

In addition, the top management should invite some objective opinions about the existing management style so as to check whether it is already open and participative enough to be qualified for adopting QCC program. Otherwise, all efforts would be wasted if implementing a QCC program without really open and participative management style.

Middle Management Support

According to a study by B. Dale and S. Hayward,¹ there are many reasons for the failure of QCCs. One of them is the lack of cooperation from the middle and first line managers.

In Dah Chong Hong, QCC meetings have often been deferred or cancelled due to various reasons. However, the success of QCCs requires QCC routine meetings that cannot be cancelled easily. No matter how the work load is, a ten-minute meeting is better than none.

There are many reasons why some middle management tends to object to QCCs or be inert or inactive. One of these is the apparently low education level, which hinders them from

¹ A study of Quality Circle Failures
B.G. Dale and S.G. Hayward UMIST 1984
Table 21 Reasons for Individual Circle Failures where such failures caused or contributed to Q.C. program suspension.
acceptance of the idea. Another reason is that many department heads or supervisors might think that this is some extra work to them.

They might be afraid of the possibility they have to release their power to the QCC and thus resist them. It is also not uncommon that in many cases, the personnel department is the one to begin the program, but the production manager will suspect that his power will be reduced or his work is being checked by others.

Therefore it is vital to start QCCs from the middle management. It would be advisable to have middle management take part in the steering committee and to sponsor them to join courses, seminar and training on QCCs so that they have the right ideas on QCCs and will not be frightened by them.

Conclusion

As a conclusion, Dah Chong Hong should intensify its training scheme and promotion so as to assist the implementation of the QCC program. Restructure of QCCs is also necessary such as employing a team of facilitators for some of whom it is a fulltime job and rearranging the composition of steering committee etc. Incentive in certain forms should be introduced to suit the Hong Kong environment but in a careful manner so that the original spirit of QCC cannot be spoiled. The top management should try its best

1 The Second Hong Kong Quality Circles Convention 1987 Hong Kong Quality Circle Associations.
to communicate downwards effectively the support for the QCC program and evaluate whether the atmosphere created by the management style is suitable for implementation of QCCs. If the finding is negative, he has to either make a change or give up QCCs. Another important thing is to increase the middle management involvement in QCCs and educate them to get the correct QCC concept so that they will be willing to render the program with full support.

Although the cost so incurred may be considerable and the company will certainly face many difficulties during the program, a wellplanned QCC program implemented in a suitable environment will undoubtedly bring huge benefit to the company in the long run.
APPENDIX II

OPINION SURVEY ON QUALITY CONTROL CIRCLE

SERVICE DIVISION ( ) PARTS DIVISION ( )

Please place a 'X' in the appropriate space:

Q.1.1 Did the Company provide the QCC basic technique training for you? Yes ( ) No ( )

If Yes, please answer Q.1.2
If No, please answer Q.1.3

Q.1.2 Can the training help you to analyse and identify the problem faced in the QCC activities?

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Never</strong></td>
<td><strong>Always</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Q.1.3 Do you think such training is necessary? Yes ( ) No ( )

Q.2.1 How is your circle leader selected? Election ( ) Appointed ( )

Q.2.2 Does your circle leader actively encourage the members to speak up their opinions and effectively lead the circle meetings?

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Never</strong></td>
<td><strong>Always</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Q.3.1 Did the circle members voluntarily join the QCC? Yes ( ) No ( )

Q.3.2 Do the circle members actively discuss and willingly share the workload with one another?

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Never</strong></td>
<td><strong>Always</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Q.4.1 How many times the average is the circle meeting held each month?

Q.4.2 Have the senior staff ever participated in your circle meetings?

1 2 3 4 5
Never Always

Q.4.3 Did the company seriously consider or accept the opinions generated from the circle meetings?

1 2 3 4 5
Never Always

Q.5.1 Did the company reward or publicity recognize the constructive opinions of QCC?

1 2 3 4 5
Never Always

Q.5.2 Do you think that reward is necessary for the success of QCC?

Yes ( ) No ( )

Q.6.1 Is the department head willing to revert the QCC opinions to top management?

1 2 3 4 5
Never Always

Q.6.2 Has the department head cancel or postpone the QCC meetings due to the busy work?

1 2 3 4 5
Never Always

Q.7.1 Has your working environment been improved after the launch of QCC program?

Yes ( ) No ( )

Q.7.2 Did QCC increase your feeling of job satisfaction?

Yes ( ) No ( )
Q.7.3 Have you placed more emphasis on 'quality' since joining QCC?

Yes ( )  No ( )

Q.7.4 Did QCC enhance the communication and understanding between you and your colleagues or supervisor?

Yes ( )  No ( )

END

THANK YOU!
品 質 圈 意 見 調 查 問 卷

維 修 部   口
製 造 部   口
請 在 適 當 地 方 加 上 'X' 畫。

1.1 公 司 是否 有 提 供 開 關 於 品 質 圈 之 基 本 訓 練， 是 口 否 口

1.2 (若 在 1.1 項 中 答 '是' 才 須 作 答)
   此 訓 練 能 幫 助 你 於 圈 活 動 中 分 析
   及 找 出 問 題 所 在。

1.3 (若 在 1.1 項 中 答 '否' 才 須 作 答)
   你 認 為 是 否 須 要 有 品 質 圈 技 巧 訓 練， 是 口 否 口

2.1 你 的 圈 長 的 選 出 是：
   圈 中 互 選 口 公 司 委 任 口

2.2 圈 長 有 无 積 極 鼓 勵 圈 員 參 與 意 見
   及 有 效 地 針 導 圈 會 議。

3.1 圈 員 是 否 自 願 參 與。

3.2 圈 員 都 有 積 極 討 論 和 願 意 分 擔 工 作。

4.1 每 個 月 開 圈 會 議 的 次 數 為 次。

4.2 公 司 高 層 人 員 有 无 參 與 你 們 的 圈 會 議。

4.3 圈 會 中 的 意 見 有 无 獲 得 公 司 重 視 或 接 納。
5.1 公司有否對有建設性意見提供獎勵或公開表揚？

5.2 提供水助對品質圈的成功是否必需。是□ 否□

6.1 部門主管有否樂意轉述圈意見至高層？

6.2 部門主管有否因工作緊迫而取消或押後圈會議？

7.1 品質圈推行後，工作環境是否得以改善？是□ 否□

7.2 品質圈是否使你的個人工作滿意感提高？是□ 否□

7.3 參與品質圈後，是否對品質更為重視？是□ 否□

7.4 品質圈是否加強你與同事或上司間之了解和溝通？是□ 否□

～完～

多謝合作！
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