CIMA

Intermediate Level   Systems and Project Management

10

ISPM

20 November 2003

Thursday morning

INSTRUCTIONS TO CANDIDATES

Read this page before you look at the questions

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|---|
| You are allowed three hours to answer this question paper. |
| ALL questions are based on the scenario, which is on pages 2 – 5.

 Answer the THREE questions in section A

 Answer ONE question ONLY from section B. |
| Write your examination number, your contact ID and your name on a double-sided card, which must be attached to your answer book.

 Write ISPM on the line marked "Subject" on the front of the answer book. |
| Do NOT write your name or your contact ID anywhere on your answer book. |
| Tick the appropriate boxes on the front of the answer book to indicate which questions you have answered. |

Background

KC Components (KCC) is a company with approximately 60 employees. It manufactures a range of electronic products using modern manufacturing technology. Production involves three shifts per day over a five-day week. Despite a good order book, KCC has made a loss in each of the last two years.

KCC was bought in May 2003 by a large international company. It immediately appointed a new General Manager to KCC. His main objective, as directed by the parent company, was to introduce a Total Quality Management (TQM) programme. He had a strong interest in quality management, but no past experience of TQM implementation. Over the next two months, he appointed a new Finance Director and a new Manufacturing Director who were both supportive of TQM. However, this replacement of the two directors caused some dissatisfaction in the organisation.

Organisation structure – July 2003

The workforce consists of a core of permanent staff and several casual staff. Many of the core employees have worked for KCC for a number of years, and, in the past, there has been a general reluctance to change current procedures and practices. In addition, there has, in the past, been some degree of hostility between the manufacturing function and the finance function. The new General Manager hopes this will be overcome by the two new directorial appointments. The structure of KCC in July 2003 is shown below.
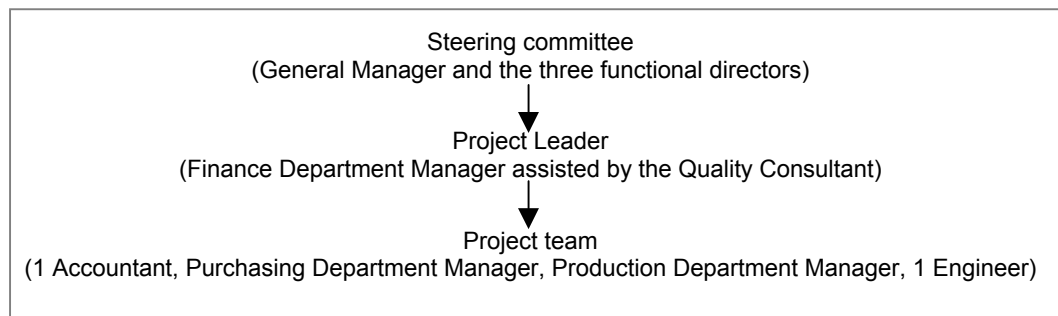
Figure 1
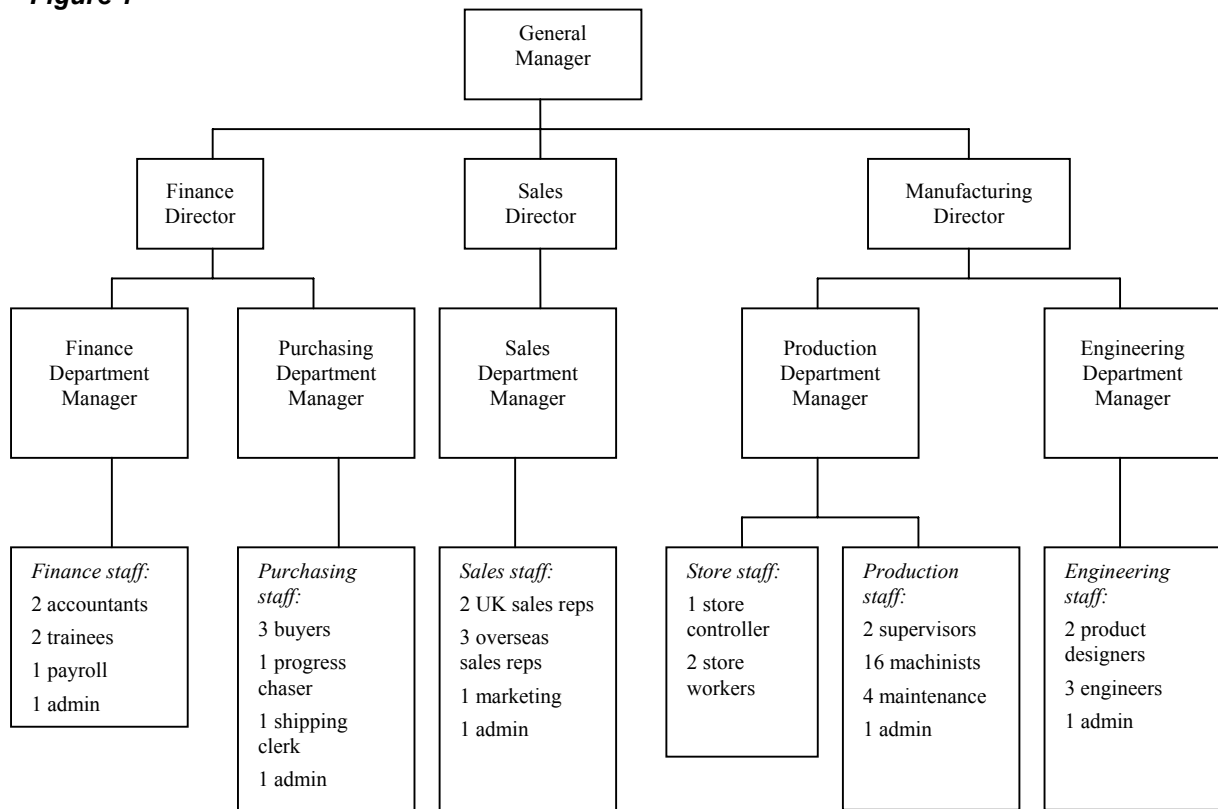
A quality focus

In July 2003, the new General Manager ran a three-day workshop for all departmental managers and directors. This workshop focused upon the need for change, and to introduce the concept of TQM. The local Business Economic Development Unit also sponsored KCC to use 100 hours of one of its Quality Consultant's time in order to help implement the TQM programme. (The Quality Consultant will assist in managing the programme until July 2004.)

During the workshop, team-building exercises were carried out in order to develop managerial co-operation and to develop a team attitude towards TQM. It was evident from this workshop that the Production Department Manager, who had worked for KCC for 18 years, was hostile towards the project. He felt that production had been blamed in the recent past for falling profits, and he was particularly hostile towards the Purchasing Department Manager, who he blamed for purchasing poor materials. During the meeting, an initial TQM project structure was drawn up *(Figure 2* below)*.

Figure 2

Steering committee
(General Manager and the three functional directors)

↓

Project Leader
(Finance Department Manager assisted by the Quality Consultant)

↓

Project team
(1 Accountant, Purchasing Department Manager, Production Department Manager, 1 Engineer)

The Finance Department Manager, who had joined KCC two weeks previously, was assigned as Project Leader (he will be assisted by the Quality Consultant initially). The project team was chosen to include members from most areas of the business. However, the Production Department Manager continued to show little enthusiasm for the exercise. He felt that he was too senior to be part of the project team.

At the end of the workshop, following lengthy discussions, the most important areas of quality management were agreed *(Figure 3* below)*. Each member of the project team would lead a quality circle to address one of the areas. Each area was considered by the directors and managers at the initial three-day workshop to be critical for quality improvement:
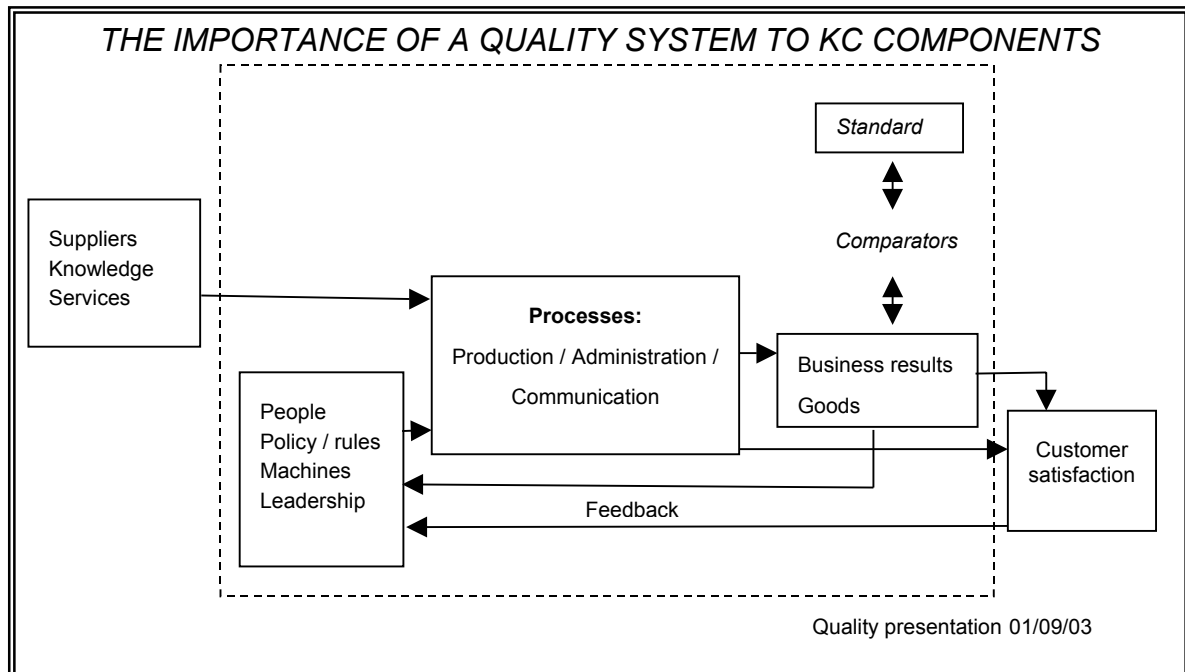
Figure 3

Quality circle	Team Leader	Issues to consider
Material management	Production Department Manager	Material wastage and supplier management
Communication systems	Accountant	Use of technology in communication (internal and external)
Customer management	Purchasing Department Manager	Customer feedback systems
Product design	Engineer	Design and engineering quality

Stage 1 – Initial awareness training

In July 2003, a memo was sent to all staff from the Project Leader, informing them of the TQM programme about to be undertaken. The Quality Consultant carried out a two-day TQM philosophy and techniques awareness course for quality circle Team Leaders in August and a one-day TQM awareness course for all employees in early September. The Quality Consultant advised the General Manager that in order to gain user acceptance, it would be more appropriate if the General Manager undertook a series of briefings prior to the one-day training.

One of the key presentation slides the General Manager used in his briefing presentations demonstrated the importance of a quality system to KCC. This is shown in *Figure 4* below. The main message that the General Manager wished to present to the staff was the importance of good communication if TQM was to succeed: *"It is vital that we encourage the involvement of all parties in the production system, both internal and external. Effective communication both internally and externally is critical to the acceptance of this TQM approach."*

Figure 4

THE IMPORTANCE OF A QUALITY SYSTEM TO KC COMPONENTS

Standard

Comparators

Suppliers
Knowledge
Services

Processes:
Production / Administration /
Communication

Business results
Goods

People
Policy / rules
Machines
Leadership

Feedback

Customer
satisfaction

Quality presentation 01/09/03

Stage 2 – Quality circles first meetings

Material management quality circle

In October, the first quality circle meetings took place. The Production Department Manager called the meeting after work, which resulted in some degree of resentment and a number of absences. The team was made up of 10 staff from all departments (only 6 turned up for the first meeting). No agenda was sent prior to the meeting. At this first meeting, the Production Department Manager highlighted a number of control problems:

- holding stocks which were unused;
- ordering of wrong materials (all orders are placed via a phone or fax order);
- defective / rejected output;
- re-work of outputs due to poor material.

KCC has used one reliable main local supplier (Z Ltd) for many years, and building a number of key supplier relationships has not been a priority in the past. The Production Department Manager instructed the team that the focus of this quality circle was to be upon the process of improved material purchasing, with a view to improving production output. One of the team members from the purchasing department disagreed with the control problems highlighted by the Team Leader and with the focus of the meeting. There was a great degree of hostility. At

the end of the first meeting, the Team Leader forgot to assign each member of the team a task to undertake, nor did he set a date for the next meeting.

Customer management quality circle

One week prior to the meeting in October, the Purchasing Department Manager sent out an agenda to all of her quality circle team. In addition, she telephoned all team members to arrange an appropriate time that would suit the majority of members. She also asked the Project Leader and Quality Consultant to the meeting. All team members attended. At the start of the meeting, the Purchasing Department Manager set out the key problems of control leading up to the need to focus upon customer management:

- in the last year, KCC has lost two local customers as a result of missed deliveries;
- there is currently no formalised system of collecting customer feedback (KCC does not have a company website or e-mail address for customers to access);
- customers have complained that staff have not dealt with complaints quickly or effectively.

All team members then brainstormed the major changes needed to improve customer management. Each team member was then assigned a specific task and deadlines were set for completion. A date for the next meeting was set for two weeks later, and the Team Leader concluded the meeting by summarising all of the key points.

First TQM progress review meeting – November 2003

The Project Leader called the first team meeting in early November, when all of the team members presented the current activities of their quality circle teams. You are an internal auditor working for the parent company of KCC, and you have been invited to attend this meeting. A summary of the main issues presented by each Team Leader is provided in *Figure 5* below:

Figure 5

Quality circle	Main findings of initial team meetings
Material management	- No supplier evaluation or review - Excessive levels of re-working and material wastage
Communication systems	- Manual material order records leading to inaccurate / lost raw material orders - Poor internal decisions being made due to wrong/mis-timed information
Customer management	- Weak customer management system - Complaints procedures limited (no on-line feedback)
Product design	- Infrequent design reviews - Frequent changes to engineering/ design in production

You have been assigned the task of providing feedback to the managers and staff of KCC on the progress of the TQM project. You are to report back to both the Board of the parent company and to the General Manager and Directors of KCC.

The questions based on this scenario start on the next page.

Pages containing the questions (section A – compulsory questions) and 9 (section B – choice of questions) are detachable so that you can see the questions at the same time as the material in the scenario.

SECTION A – 80 MARKS
Read the scenario before you attempt the questions
ANSWER ALL THREE QUESTIONS

Question One

You have asked all of the quality circle Team Leaders to send you the minutes from the first quality circle meetings, in order to review the initial progress of the TQM programme. The General Manager has asked you to review the two meetings in the scenario.

Required:

Prepare a report to the project steering committee of KCC which will

(a) briefly explain the importance of undertaking a series of quality circle meetings. Evaluate the methods used by the two quality circle Team Leaders highlighted in the scenario, in both organising and managing the quality circle meetings which took place in October;

(12 marks)

(b) recommend FOUR actions which could be undertaken by the steering committee to ensure that the team management problems encountered in the material management quality circle do not occur again.

(8 marks)

(Total = 20 marks)

Question Two

The General Manager has identified that effective communication, both internal and external, is one of the key criteria for the success of the TQM project. You have been asked by the General Manager to prepare an internal memorandum to all staff.

Required:

(a) Using the definitions employed by general systems theory, explain the General Manager's key presentation slide *(Figure 4)*.

(16 marks)

(b) Explain the concepts of "feedback" and "feedforward" control. For each of these control mechanisms, describe one way in which they could be used by KCC to improve quality management.

(10 marks)

(c) Explain how information technology could be used to improve communication by KCC, both internally and externally. (You are to assume that IT is currently not used widely to communicate either internally or externally.)

(10 marks)

(Total = 36 marks)

Question Three

(a) Following the first TQM progress review held in early November, you have been asked by the Project Leader to prepare a set of briefing notes for the quality circle Team Leaders. The briefing notes will

(i) briefly explain the four categories of quality cost, and provide a brief example of each for KCC;

(8 marks)

(ii) analyse the findings, using the information presented in the table *(Figure 5)* at the end of the scenario, of any *ONE* of the initial quality circle team meetings in terms of the quality cost categories mentioned above.

(4 marks)

(b) The Project Leader is particularly concerned with the findings from the material management quality team meeting. He has asked you to:

(i) provide him with a set of briefing notes which will discuss the control problems identified at the material management quality circle team meeting;

(8 marks)

(ii) make TWO recommendations for improvement in the control systems used in material management.

(4 marks)

(Total = 24 marks)

Question Four

Analyse the issues likely to be encountered by a small organisation when undertaking a complex and long-term project such as TQM. Your answer should provide an analysis of the following areas:

   (i)   communication and leadership;

   (ii)   resource management (that is, finance and staff);

   (iii)   time management;

   (iv)   change management.

(20 marks)

Question Five

(a) Explain the key attributes of an effective internal audit.

(8 marks)

(b) The internal auditor has been asked by the Board of Directors of the parent company to undertake an audit of the TQM programme.

Explain the problems which may be encountered by the internal auditor when auditing the TQM programme occurring in KCC, and recommend three ways in which the internal auditor could overcome these problems.

(12 marks)

(Total = 20 marks)

End of paper