CHAPTER 8

Commerce and Economic Development Bureau
Innovation and Technology Commission

Hong Kong Productivity Council:
Management of projects and services

Audit Commission
Hong Kong
27 October 2009

This audit review was carried out under a set of guidelines tabled in the Provisional Legislative Council by the Chairman of the Public Accounts Committee on 11 February 1998. The guidelines were agreed between the Public Accounts Committee and the Director of Audit and accepted by the Government of the Hong Kong Special Administrative Region.

Report No. 53 of the Director of Audit contains 11 Chapters which are available on our website at http://www.aud.gov.hk.

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HONG KONG PRODUCTIVITY COUNCIL: MANAGEMENT OF PROJECTS AND SERVICES

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PART 1:   INTRODUCTION

1.1   This PART describes the background to the audit and outlines the audit objectives and scope.

Background

1.2   In 1967, the Hong Kong Productivity Council (HKPC) was established as a statutory body under the HKPC Ordinance (Cap. 1116). The HKPC Ordinance stipulates that the functions of the HKPC should be:

   (a)   to promote the increased productivity of industry in Hong Kong and to encourage the more efficient utilisation of resources therein;

   (b)   to consider matters affecting the productivity of industry in Hong Kong;

   (c)   to advise the Chief Executive (CE) concerning the productivity of industry in Hong Kong and measures designed to increase it;

   (d)   to consult with, coordinate and assist the activities of persons or organisations engaged in the study, development or dissemination of programmes, methods or techniques designed to increase the productivity in industry; and

   (e)   to take on productivity related assignments elsewhere than in Hong Kong subject to the conditions that:

   (i)   the assignment can be carried out without prejudice to the performance of the functions referred to in (a) to (d) above; and

   (ii)   the minimum rate charged by the HKPC for the assignment is sufficient to recover all costs incurred in carrying out that assignment, which costs shall include direct costs (recurrent and capital) and overhead costs.

Organisation of the HKPC

1.3   According to the HKPC Ordinance, the Council shall consist of not more than 23 members appointed by the CE (Note 1). Of these members:

   (a)   one member shall be appointed as Chairman of the Council;

Note 1:   *The authority of the CE to appoint members of the Council, other than the Chairman, has been delegated to the Secretary for Commerce and Economic Development.*

(b)   not more than 17 shall be appointed to represent management, labour and professional or academic interests; and

(c)   not more than 5 shall be public officers.

1.4   As at 1 July 2009, the five public officers appointed as Council members were:

(a)   the Permanent Secretary for Commerce and Economic Development (Communications and Technology);

(b)   the Commissioner for Innovation and Technology;

(c)   the Director-General of Trade and Industry;

(d)   the Government Economist; and

(e)   the Deputy Commissioner for Labour.

1.5   Under the HKPC Ordinance, the Council is given the power to appoint an Executive Director (ED) to be the chief administrative officer, other officers, servants and agents. As at 31 March 2009, the HKPC had a total of 542 staff, comprising 250 professional and 292 general staff. They were organised into three branches, namely the Technology Development Branch, the Business Consulting Branch and the Corporate Services Branch. The organisation chart of the HKPC as at 31 March 2009 is shown at Appendix A.

Income and expenditure

1.6   In 2008-09, the total income of the HKPC was $478 million, which comprised:

(a)   fees and service charges of $255 million (53%);

(b)   government subvention of $170 million (36%);

(c)   project funding of $37 million (8%) from the Innovation and Technology Fund (ITF); and

(d)   building loan subvention (Note 2) of $16 million (3%).

In the same year, the HKPC's total expenditure was $468 million (see Figure 1).

Note 2:   *The building loan subvention was provided to the HKPC for repaying a loan of $249.4 million, which was drawn from the Loan Fund in the late 1980s for constructing the HKPC Building.*

Figure 1

**Income and expenditure of the HKPC
(2008-09)**

(A) Income: $478 million

Building loan subvention:
$16 million (3%)

Project funding
from the ITF:
$37 million (8%)

Fees and service charges:
$255 million (53%)

Government subvention:
$170 million (36%)
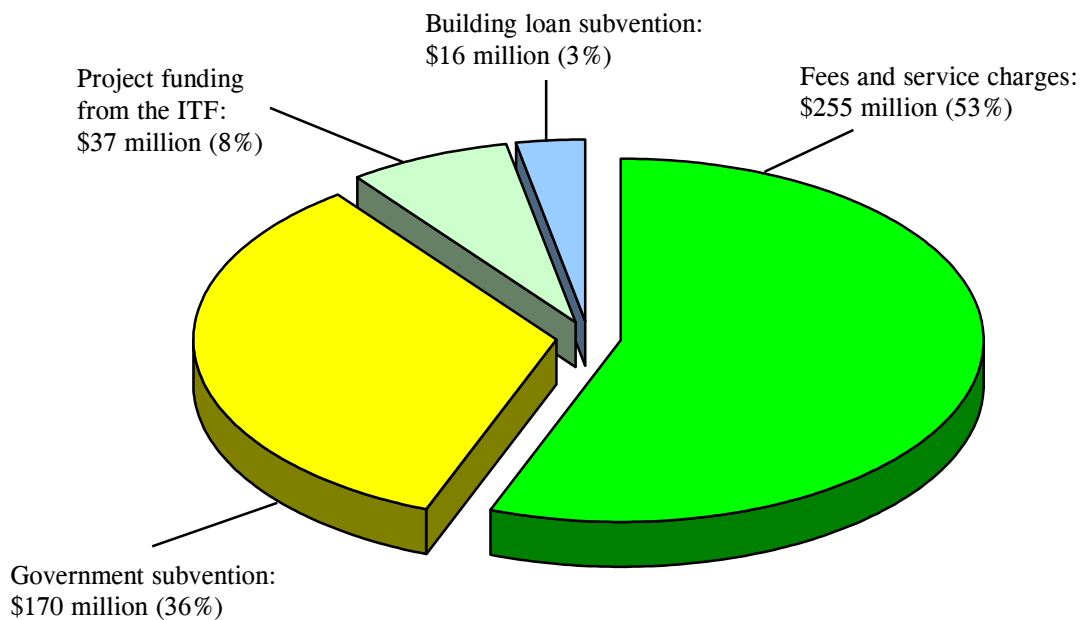
(B) Expenditure: $468 million

Capital expenditure for
purchase of fixed assets:
$41 million (9%)

Staff emolument:
$257 million (55%)

Recurrent expenses:
$170 million (36%)

Source: HKPC records

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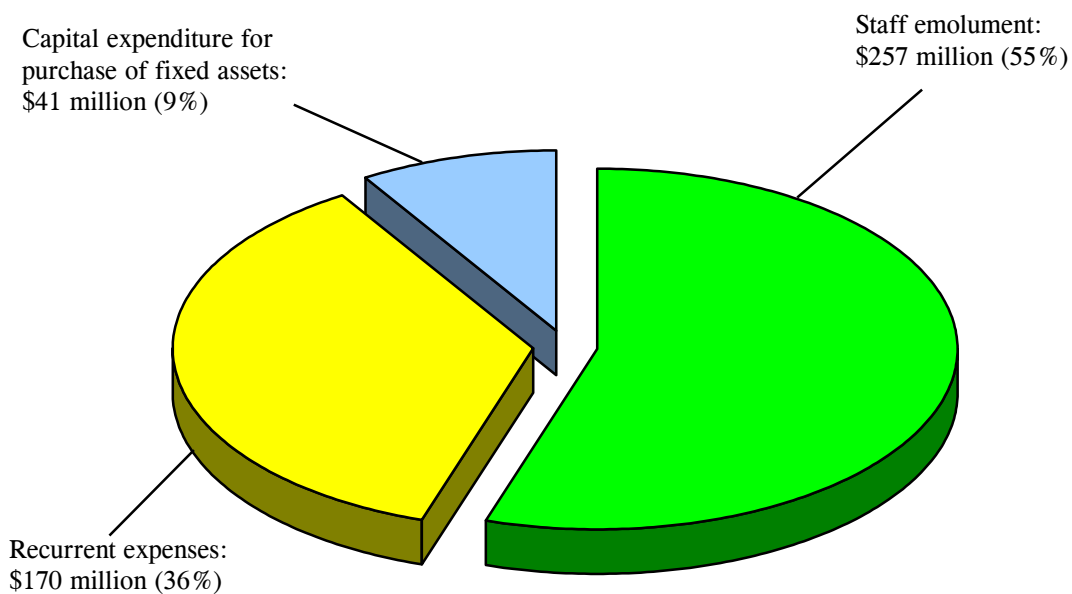
Role of the Commissioner for Innovation and Technology

1.7   The Commissioner for Innovation and Technology is the Controlling Officer of the subvention granted to the HKPC. As the Controlling Officer, the Commissioner is responsible for ensuring that the HKPC's activities accord with its objectives and relevant public policies and priorities, and that the HKPC's policy objectives are appropriate. The Commissioner may also advise the HKPC on the need to review these objectives in the light of changes in the economic environment.

1.8   To provide a framework for the relationship between the Government and the HKPC and to set out the responsibilities of each party in detail, the Government and the HKPC entered into a Memorandum of Administrative Arrangements (MAA) in 2003. The MAA states that:

   (a)   the service focus of the HKPC is to provide integrated support to innovative and growth oriented Hong Kong firms across the value chain, with sectoral focus on manufacturing, particularly in Hong Kong's foundation industries, and related service activities;

   (b)   the main geographical focus is Hong Kong and the Pearl River Delta (PRD);

   (c)   the HKPC should have autonomy and flexibility in utilising its funds and resources insofar as it is not inconsistent with the provisions of the HKPC Ordinance;

   (d)   the HKPC may keep as reserves any savings from its annual block grant arising from any reasons other than a curtailment or cessation of activity stated in its Annual Programme and Estimates, or reduction in remuneration for its staff as a consequence of any civil service's pay adjustment; and

   (e)   at any one point in time the level of reserves shall not exceed 15% of the HKPC's annual block grant in the current financial year. Amount in excess of the limit shall be returned to the Government in the following financial year.

Reporting arrangements

1.9   According to the MAA, the HKPC is required to submit to the Innovation and Technology Commission (ITC) annually a Three-year Forecast and an Annual Programme and Estimates. The Three-year Forecast should set out the strategic targets of the HKPC, the plans to be adopted in achieving these targets and an assessment of their resource implications. On the other hand, the Annual Programme and Estimates should include proposed activities categorised in different programme areas and estimates of income and expenditure for the forthcoming financial year for the Government's approval.

1.10   The HKPC is also required, under the HKPC Ordinance, to submit:

(a)   a report on its activities; and

(b)   a copy of its audited accounts

to the Government within six months after the end of each financial year, for tabling in the Legislative Council.

Standard Practices

1.11   To provide guidance to staff for the proper administration and functioning of the HKPC, the policies, regulations and procedures governing the HKPC's operation (e.g. human resource and procurement management) are specified in a set of Standard Practices issued by the ED. The Standard Practices stipulate that all staff should follow the requirements of the Practices.

Audit review

1.12   The Audit Commission (Audit) has recently carried out a value for money audit of the HKPC. The audit findings are contained in two separate reports, as follows:

(a)   HKPC: Corporate governance and administrative issues (Chapter 7 of the Director of Audit's Report No. 53); and

(b)   HKPC: Management of projects and services (the subject matter of this report).

1.13   Audit's review of the management of projects and services of the HKPC has focused on the following areas:

(a)   management of training services (PART 2);

(b)   management of consultancy projects (PART 3);

(c)   withdrawal from mature markets (PART 4); and

(d)   management of research and development (R&D) projects (PART 5).

1.14   Audit has found room for improvement in the above areas and has made a number of recommendations to address the issues.

General response from the Administration

1.15   The **Secretary for Commerce and Economic Development** and the **Commissioner for Innovation and Technology** agree with the audit recommendations. They welcome the value for money audit on the operation of the HKPC, which helps improve the HKPC's financial control and operational effectiveness.

General response from the HKPC

1.16   The HKPC agrees with the audit recommendations. The **ED, HKPC** has said that:

(a)   the HKPC fully appreciates the efforts made by Audit in conducting this audit. The areas covered are comprehensive and the recommendations made are useful and productive;

(b)   the timely audit exercise has highlighted many areas where further improvements could be made. It has also provided renewed impetus for the HKPC to continue its on-going reform;

(c)   the HKPC has drawn up a concrete action plan and consulted the Council fully on it.   Swift action has been taken in respect of some of the audit recommendations;

(d)   the HKPC is confident that further concrete actions would be taken later in the year; and

(e)   the HKPC should be able to report solid progress for the rest of the audit recommendations thereafter.

1.17   The **ED, HKPC** has also said that:

(a)   the HKPC welcomes the audit findings on the various aspects of its Project Management System (PMS — see para. 2.9);

(b)   the PMS is an old management information system of over 30 years. Over the years, more and more features have been added to the system such that it has become increasingly unwieldy and ineffective as a management tool;

(c)   the HKPC sees an urgent need to overhaul the system and has set up a Task Force in September 2009 to critically review the entire system. The opportunity would be taken to review fundamentally its function and purpose and how it should be revamped and streamlined; and

(d)   the HKPC is confident that such an exercise should fully address all the issues identified by Audit and bring the PMS up-to-date.

Acknowledgement

1.18   Audit would like to acknowledge with gratitude the full cooperation of the staff of the HKPC and the ITC during the course of the audit review.

PART 2:   MANAGEMENT OF TRAINING SERVICES

2.1   This PART examines the HKPC's management of its training services and suggests measures for improvement.

Provision of training services

2.2   The HKPC provides training services to industries as an integral part of its support services to them.   The Technology Development Branch is responsible for managing training services related to manufacturing technology, materials technology and intellectual property.   All other training services are managed by the Productivity Training Institute of the Business Consulting Branch (see Appendix A).   In 2008-09, the HKPC organised about 500 training courses.   The total income was $33 million.

Approval of training courses

2.3   According to the Standard Practices and the Training Policy Guidelines of the HKPC:

(a)   the theme and content of training courses should be in line with the mission of the HKPC and the "Dos and Don'ts List" (see para. 4.3(c) and (d)); and

(b)   estimates should be prepared for all training courses and submitted to the management for approval.

Audit observations and recommendations

Key information not submitted

2.4   Audit examined the proposals of 50 training courses organised by the HKPC in 2007-08 and 2008-09. **Audit noted that the information provided in the proposals was not adequate.** Details are as follows:

(a)   none of the proposals provided information on the assessment of market demand for the courses;

(b)   only 6 of the proposals provided justifications for organising the courses;

(c)   in 30 proposals, budgets for external trainers were included.   The justifications for engaging the external trainers were not documented; and

(d)   the proposed fees for external trainers in the 30 proposals varied significantly (see Table 1). However, the justifications for proposing the different levels of fees were not documented in the proposals.

Table 1

Proposed fees for external trainers

Proposed fees	Number of course proposals
(a) Revenue sharing basis with sharing percentage ranging from 30% to 85%	12
(b) Fixed amount ranging from $6,500 to $190,000	10
(c) Hourly rate ranging from $400/hour to $600/hour	5
(d) Combination of (a) and (c)	2
(e) Combination of (b) and (c)	1
Total	**30**

Source: HKPC records

Staff cost lower than required 20% threshold

2.5   In order to maintain a reasonable level of staff contribution in each project, including projects for training services, the HKPC stated in its Standard Practices that the staff cost should not be less than 20% of the total project cost. Management approval is required for projects with staff cost below the 20% threshold.

2.6   **Audit examination of the estimated staff cost for training courses organised from August 2007 to March 2009 revealed that the estimated staff cost of eight courses was below 20%.** The justifications for the exemption from complying with the 20% requirement were not documented. An example is given below for illustration.

Example 1

(1) According to the proposal for a training course on ladies' shoes design, the total project cost was $29,800, of which $4,300 (14%) was the estimated staff cost.

(2) Despite the fact that the estimated staff cost did not meet the 20% threshold as required in the Standard Practices, the course was approved. However, the justifications for the approval were not documented.

Audit comments

Audit considers that the HKPC should ensure that justifications for approving training courses not meeting the 20% threshold requirement are properly documented.

Source: HKPC records

Audit recommendations

2.7   **Audit has *recommended* that the HKPC should ensure that:**

  (a)   **comprehensive information on training courses is provided in all course proposals. Such information should include an assessment of the market demand, justifications for organising the courses, reasons for engaging external trainers and justifications for the proposed fees; and**

  (b)   **the staff cost of training courses is not less than 20% of the total project cost as required in the Standard Practices. If approval is given for a course which does not meet the 20% staff cost requirement, the justifications for the approval should be properly documented.**

Response from the HKPC

2.8   The HKPC agrees with the audit recommendations. The **ED, HKPC** has said that the Productivity Training Institute holds regular monthly meetings to rigorously review the market demand, justifications, fee levels, etc. of training courses, albeit the discussions on each training course may not have been fully documented.

Management information on training courses

2.9   The PMS is a computer system which captures information on all projects, including training courses, to facilitate monitoring of their progress and performance.

Audit observations and recommendations

Staff hours not recorded in PMS

2.10   Audit examined the data maintained in the PMS and noted that no staff hour was recorded for:

   (a)   196 (44%) of the 447 training courses held in 2007-08; and

   (b)   257 (52%) of the 497 training courses held in 2008-09.

An example is given below for illustration.

Example 2

(1)   The HKPC held a diploma course in commercial graphic design from June to November 2008.   Four trainees enrolled and completed the course.   The total income received was $47,200.

(2)   Up to June 2009 (i.e. about seven months after the course ended), no staff hour was recorded in the PMS.

Audit comments

The number of staff hours was an integral part of the management information on training courses.   Omission to record the staff hours in the PMS rendered the management information incomplete.

Source: HKPC records

Significant variations in staff hours

2.11   Some training courses were held several times in 2007-08 and 2008-09.   Audit selected five such courses for examination and noted that, although the contents were similar, the number of staff hours recorded for four courses (80%) varied significantly. Details are shown in Table 2.

Table 2

Variations in staff hours of training courses

Training course	Number of times held in 2007-08 and 2008-09	Number of staff hours recorded in PMS
Professional diploma programme in corporate governance and directorship	4	121 to 629
Certified factory auditor training scheme	4	106 to 300
Professional diploma in strategic purchasing and supply chain management	3	8 to 495
Certificate for Intellectual Property Manager	3	0 to 147

Source: Audit analysis of HKPC records

Charging of staff hours after the end of the course

2.12   **Audit examined 20 courses and noted that in 13 (65%) courses, no staff hour was recorded before the end of the courses.   The staff hours were all charged to the courses long after they had ended.**   An example is given below for illustration.

Example 3

(1)   A professional diploma course in human resource management ended in June 2006.

(2)   According to the PMS:

   (a)   no staff hour was recorded prior to December 2007 (i.e. 18 months after the end of the course); and

   (b)   from December 2007 to May 2008, 655 staff hours were charged to the course.

Audit comments

The charging of the staff hours to a course long after it had ended reflected that the information kept in the PMS was not accurate or up-to-date.

Source: HKPC records

2.13   In response to an enquiry regarding the observations in paragraphs 2.10 to 2.12, the HKPC informed Audit in June 2009 that it was a long established practice to adopt a "batch processing approach" for charging staff hours to training courses.   Under this approach, the overall staff hours incurred were charged to courses in turn, starting from courses with the highest budgeted staff hours to courses with the lowest ones.   In many cases, by the time when the courses with high budgeted staff hours were fully charged, the courses with less budgeted ones had already ended.   As a result, no staff hours were charged to such courses.

2.14   Audit has reservations on this approach of allocating staff hours to training courses.   The reliability and usefulness of the management information in the PMS for monitoring the progress and performance of the training courses would be undermined by this approach.

Incorrect charging of course expenses

2.15   **Audit also noted that in 6 (30%) of the 20 courses examined, expenses not incurred for the courses were incorrectly charged.**   An example is given below for illustration.

Example 4

(1)   A course on Registered Corporate Coach designation certificate programme ended in October 2007.

(2)   Advertisement expenses of $25,718 incurred in June and September 2008 for other courses were charged to the course.

Audit comments

The charging of the advertisement expenses incurred for other courses reflected that the information kept in the PMS was not reliable.

Source: HKPC records

Information on number of trainees not readily available

2.16   The number of trainees is a useful piece of management information for assessing the success of a course.   It can also be used as a key performance indicator for monitoring the HKPC's effectiveness in providing training services.   Audit noted that the HKPC did not maintain records of the number of trainees in a readily available format. Incomplete information was kept sporadically in the PMS and a system named "Training On-line", as illustrated in the example below.

Example 5

(1) A training course was organised in November 2008. Twenty-two trainees enrolled. Nineteen of them enrolled in three groups, and the remaining three enrolled individually.

(2) The PMS did not keep the number of trainees in a readily available format. Such information had to be deduced from the income records captured by the PMS. However, the income records only showed that there were three groups of trainees and three individual trainees. The number of trainees (i.e. 19) enrolled in groups would have to be further extracted from the records of debit notes issued.

(3) The Training On-line only recorded the enrolment of the three individual trainees. No record for the enrolment of the 19 trainees was kept by the system.

Audit comments

Information on the number of trainees for each training course should be readily available to facilitate analysis of the HKPC's performance in its training services. However, as illustrated above:

(a) the information kept by the Training On-line was incomplete; and

(b) considerable time and effort had to be spent for extracting such information from the PMS.

Source: HKPC records

Audit recommendations

2.17 **Audit has *recommended* that the HKPC should:**

   (a) **stop using the batch processing approach for charging staff hours to training courses;**

   (b) **ensure that the staff hours and expenses for a training course are correctly and promptly recorded in the PMS; and**

   (c) **ensure that the information on the number of trainees for a training course is readily available in the management information system for monitoring the effectiveness of the training services.**

Response from the HKPC

2.18   The HKPC agrees with the audit recommendations. The **ED, HKPC** has said that the batch processing approach for charging staff hours has been stopped since September 2009.

Evaluation of training courses

2.19   Course evaluation is an effective means to obtain feedbacks on the quality of the training and to identify necessary improvement measures. The most common practice is to conduct end-of-course evaluations.

2.20   According to the HKPC, staff responsible for training services should:

(a)   collect feedbacks from the trainees using an end-of-course evaluation form. Individual aspects of the training course would be assessed by the trainees using a scale of 1 to 10;

(b)   compile the average scores of individual aspects of the training course and record the results in an evaluation summary; and

(c)   propose and document improvement measures in a follow-up form for approval by the management for training courses where the average score of any individual aspect is below 7.

Audit observations and recommendations

2.21   An examination of the evaluation records of 30 training courses delivered in 2007-08 and 2008-09 revealed that:

(a)   in 3 (10%) of the 30 courses, no end-of-course evaluation was carried out;

(b)   in 6 (22%) of the 27 courses where end-of-course evaluations were carried out, no evaluation summary was prepared. The feedbacks collected from the trainees were not analysed to identify the required improvement measures; and

(c)   in 5 (24%) of the 21 courses where evaluation summaries were prepared, the average scores of some individual aspects of the courses were below 7. No follow-up form was prepared in one of the 5 courses.

Audit recommendations

2.22   **Audit has *recommended* that the HKPC should ensure that:**

(a)   **end-of-course evaluations are carried out for training courses;**

(b)   **the feedbacks collected from the trainees are thoroughly analysed to ascertain if any improvement measures are required; and**

(c)   **improvement measures are properly documented and implemented to address the problems identified.**

Response from the HKPC

2.23   The HKPC agrees with the audit recommendations. The **ED, HKPC** has said that the HKPC will carry out end-of-course evaluations, analyse feedbacks and identify improvement measures.

Cancellation of training courses

2.24   In 2008-09, 137 (28%) of the 497 training courses were cancelled before commencement of the courses.

Audit observations and recommendations

Reasons for low enrolments not documented

2.25   Audit examined the records of 20 courses that were cancelled in 2008-09. All the 20 courses were cancelled because of unsatisfactory enrolment. **However, the reasons for the low enrolments were not documented and action plans for improvement were not prepared for 5 (25%) such courses.**

2.26   The large percentage of cancelled courses indicated that the efforts spent in preparing and promoting the courses might have been wasted. It is important to identify the reasons for the low enrolments and prepare improvement plans to minimise cancelling courses in future.

Improvement plan suggestions not followed

2.27   Audit examined the records of the remaining 15 cancelled courses where improvement plans to prevent recurrence of cancellation were prepared. Audit noted that the suggestions of the improvement plans were not always followed. An example is given below for illustration.

Example 6

(1)   A training course on marketing for high technology was organised in January 2008. The course was cancelled because of low enrolment. It was found that the high course fee contributed to the low enrolment. The improvement plan stated that the course should only be organised again upon request from **company clients.**

(2)   In April 2008, the course was organised for **the public** again. The fee was set at the same level as before, but with a 5% discount offered to members of the supporting organisations. The enrolment was low, and the course was cancelled again before the commencement date. The project team again found that the low enrolment was due to the high fee and low market acceptance. The team suggested that the course should be suspended until solid demand was identified.

Audit comments

Had the staff followed the suggestions made in the improvement plan, the course should have been offered only upon request from company clients.

Source: HKPC records

Evaluation of the effectiveness of marketing channels

2.28   Audit noted that the HKPC used various marketing channels to promote its training services, e.g. mailing of pamphlets, advertisements in newspapers/on the Internet, e-mails and free seminars. In 2008-09, the cost incurred for promoting training services amounted to $1.7 million.

2.29   **There was no record showing that the HKPC had conducted any evaluation of the effectiveness of the different marketing channels used for promoting training services.** In response to an enquiry in June 2009, the HKPC informed Audit that the training staff had collected information from the trainees on the channels through which they became aware of the training courses. The information was analysed by the training staff, but records of the analysis were not maintained.

Audit recommendations

2.30   **Audit has *recommended* that the HKPC should:**

(a)   **document the reasons for cancelling training courses before commencement;**

(b)   **prepare an improvement plan for cancelled courses, highlighting the lessons that could be learnt from the failure and the pitfalls that should be avoided in future;**

(c)   **follow up on suggestions of the improvement plans to avoid recurrence of cancellation of courses; and**

(d)   **regularly evaluate the effectiveness of different marketing channels used for promoting training services and properly document the results of the evaluation.**

Response from the HKPC

2.31   The HKPC agrees with the audit recommendations. The **ED, HKPC** has said that the HKPC's public mission is to introduce new technology and the latest management practices to the industries. Therefore, a slightly higher cancellation rate may be inevitable. The promotion and marketing of such new and emerging ideas themselves do serve a very useful educational and awareness-arousing purpose.

Utilisation of training venues

2.32   The venues used for training courses comprise 15 classrooms, 8 computer rooms, an exhibition hall, a function room and a lecture theatre. These venues are also made available for use by outside organisations including industries, universities, and trade and professional associations.

Audit observations and recommendations

2.33   In August 2009, the HKPC informed Audit that it had constantly reviewed the utilisation of classrooms and computer rooms and taken actions to maximise their utilisation (e.g. converting a computer room into a classroom in March 2008 and merging two small classrooms into one mid-size classroom in July 2009). Audit examined the utilisation of the training venues in 2007-08 and 2008-09. **Although the overall average utilisation rates increased from 27% in 2007-08 to 36% in 2008-09, the rates were still on the low side.** Details of the utilisation rates of the training venues in 2007-08 and 2008-09 are shown in Table 3.

Table 3

**Utilisation of training venues
(2007-08 and 2008-09)**

Venue	Utilisation rate					
	2007-08			2008-09		
	Day session	Evening session	Overall	Day session	Evening session	Overall
Classrooms	29%	49%	**39%**	28%	58%	**43%**
Computer rooms	6%	24%	**15%**	8%	34%	**21%**
Exhibition hall	32%	14%	**23%**	39%	17%	**28%**
Function room	21%	39%	**30%**	46%	48%	**47%**
Lecture theatre	29%	31%	**30%**	32%	50%	**41%**
Overall	**23%**	**31%**	**27%**	**31%**	**41%**	**36%**

Source: *HKPC records*

Remarks: *The day session is from 9 a.m. to 6 p.m. and the evening session is from 6 p.m. to 10 p.m.*

Audit recommendations

2.34   **Audit has *recommended* that the HKPC should:**

(a)   **continue to monitor closely the utilisation of the training venues; and**

(b)   **consider taking effective measures (e.g. converting the training venues which are surplus to requirement into other gainful uses) to improve the utilisation of the training venues.**

Response from the HKPC

2.35   The HKPC agrees with the audit recommendations. The **ED, HKPC** has said that the HKPC will continue to monitor closely the utilisation of the training venues and take improvement measures, as and when required.

PART 3: MANAGEMENT OF CONSULTANCY PROJECTS

3.1   This PART examines the HKPC's management of consultancy projects and reports areas for improvement.

Background

3.2   The provision of consultancy services is one of the core elements of the HKPC's integrated industry support services. In 2008-09, the total income from the provision of consultancy services was $172 million, representing 36% of the HKPC's total income.

3.3   According to the Standard Practices, staff involved in consultancy projects are required to record the project information (e.g. amount of resources spent and dates of key project milestones) in the PMS (see para. 2.9).

Project planning

3.4   At the planning stage, project teams carry out project prospective studies to identify the clients' needs and ascertain whether the HKPC can satisfy such needs. If the clients' needs can be satisfied by the HKPC, project plans with cost estimates are drawn up for acceptance by the clients and approval by the management (see the project life cycle flow chart at Appendix B).

Audit observations and recommendations

Monitoring of project prospective studies

3.5   According to the PMS, there were 121 prospective studies in progress as at 31 March 2009. Audit examination of these studies revealed that:

   (a)   the staff hours spent on project prospective studies were not recorded in the PMS because there was no such requirement in the Standard Practices; and

   (b)   29 (24%) and 33 (27%) of the project prospective studies commenced in 2006-07 and 2007-08 respectively. The reasons why these studies had been outstanding for such a long time (i.e. over a year) were not documented.

Reasons for rejecting project proposals not documented

3.6		For the period 2006-07 to 2008-09, there were 296 project proposals that were either not accepted by the clients or not approved by the management. Audit selected 30 of these projects for examination. Audit found that the reasons for rejecting the project proposals were not documented in the files of 14 (47%) projects. Audit also found that no project file was kept for 5 (17%) other projects.

Audit recommendations

3.7		**Audit has *recommended* that the HKPC should:**

(a)		**require the project teams to record in the PMS the staff hours spent on project prospective studies;**

(b)		**ensure that project prospective studies are completed in a timely manner;**

(c)		**ascertain and document the reasons for the delays in completing the project prospective studies which have been outstanding for a long time;**

(d)		**require the project teams to ascertain and record the reasons for project proposals which are not accepted by the clients or not approved by the management; and**

(e)		**ensure that files are kept for all projects to record the project information (e.g. project proposals) for monitoring their progress and for future reference.**

Response from the HKPC

3.8		The HKPC agrees with the audit recommendations. The **ED, HKPC** has said that the HKPC will take them into account in the overall review of the PMS.

Project monitoring

3.9		To facilitate monitoring of progress, project staff are required to record the time spent on their projects in the PMS.

Audit observations and recommendations

Information kept in PMS not accurate

3.10   Audit selected from the PMS for examination 20 projects which were in progress as at 31 March 2009. Audit found that, of these 20 projects:

(a)   10 projects were recorded as 99% completed. However, no staff hours had been charged to them; and

(b)   6 projects were actually either completed or terminated, but their status had not been updated.

No assessment on dormant projects

3.11   Audit noted that of the 20 projects mentioned in paragraph 3.10, 4 projects were dormant during the period 2007-08 to 2008-09. However, documentation was not available in the project files showing whether there was any assessment of:

(a)   the possibility that the clients would resume the projects; and

(b)   the time when the projects would be resumed.

Non-compliance with project agreements

3.12   The examination of the 20 projects mentioned in paragraph 3.10 also revealed that in 4 projects, the HKPC had outsourced part of the project to external service providers. **In 2 of these 4 outsourced projects, Audit noted that the HKPC had not obtained written approval from the clients according to the terms of the project agreements.** Details are reported in paragraphs 3.13 and 3.14.

3.13   *Project A.*   The HKPC was awarded a system maintenance contract in June 2008. According to the terms of the contract, the HKPC should not, without the written consent of the client, assign or transfer any part of the work. Audit noted that the HKPC outsourced the contract to an external service provider after the contract was signed, without obtaining written consent from the client.

3.14   *Project B.*   A client appointed the HKPC in August 2007 to conduct annual security audits for a computer system. According to the non-disclosure agreement, the HKPC should not disclose confidential information to third parties without written permission from the client. If such third party disclosure was necessary, written permission was required.   Confidential information, as defined by the agreement, included all

documentation provided by the client to the HKPC. Audit noted that because of the outsourcing arrangement, the external service provider was given access to the confidential information of the client's system. However, no written permission from the client had been obtained.

Projects with no consultancy fees received

3.15   Audit noted that 2,152 projects were completed and 75 projects were terminated during the period 2006-07 to 2008-09. No consultancy fees were received in 45 (2%) of these 2,227 (i.e. 2,152 + 75) projects. Audit selected 5 completed projects and 5 terminated projects from these 45 projects for examination. Audit noted that:

(a)   in 5 projects, the project team had not carried out any work when the projects were terminated;

(b)   in 2 projects, the reason for receiving no consultancy fees was not recorded;

(c)   in 2 projects, the clients were not satisfied with the HKPC's performance and did not pay for the work carried out; and

(d)   in the remaining project, the HKPC did not manage to deliver the project and therefore refunded the consultancy fees to the client.

No action taken to collect consultancy fees for work carried out

3.16   Audit examination of the two projects mentioned in paragraph 3.15(c) revealed that the project team had not recorded the staff cost for the services provided and had not taken action to collect the consultancy fees for the work carried out. Details of the audit findings are summarised in paragraphs 3.17 to 3.22.

3.17   ***Project C.*** In June 2006, a client commissioned the HKPC to undertake a study on the trade effluent discharged from its premises and to appeal, on its behalf, against the surcharge rates set by the Drainage Services Department. **Up to December 2006, the HKPC had carried out a number of tasks, including the submission of three appeal proposals and the attendance of two on-site meetings with the client and the Drainage Services Department.**

3.18   In January 2007, the client wrote to the HKPC expressing dissatisfaction with the HKPC's work relating to the collection of effluent sample discharged from the client's premises. In response, the project team requested a meeting with the client to discuss the matter. However, no response was received from the client.

3.19   In February and March 2007, the HKPC issued a number of reminders urging the client to pay for the services but to no avail. In late March 2007, the project team stated in the file that the client had verbally requested to suspend the project. The project team then changed the status of the project to "completed" in the PMS. However, the project team had not recorded any staff cost in the PMS. In May 2007, the client advised the project team that the HKPC's service would not be required shortly. **No record was found to show that the project team had carried out follow-up action to recover the cost incurred, or to obtain management approval for not pursuing the case.**

3.20   ***Project D.*** In 2000, the HKPC partnered with a service provider to develop an online procurement system for a client. The HKPC was responsible for providing software maintenance service of the system. Since mid-2005, the client experienced multiple operational problems with the system. The client thus stopped payments to the service provider and withheld payment of about $188,000 to the HKPC. In December 2005 and January 2006, the project team made two temporary fixes to resolve the problems.

3.21   In February 2006, despite the advice of the Finance Division that legal action should be taken to recover the fees for the service provided, the project team sought the approval of the Branch Director to cancel the invoice issued. The project team considered that the client was a good customer and wanted to maintain the relationship. The Branch Director approved the withdrawal of the invoice temporarily, subject to the project team's commitment to resolve the issue within a reasonable period of time (about two months). If the issue could not be resolved by then, a follow-up meeting should be arranged to decide the next course of action.

3.22   In March 2007, the project team changed the status of the project to "completed" in the PMS. Audit found that no record was available showing that the project team had resolved the issue or arranged a meeting to decide the next course of action. Audit also found that the project team had not recorded the staff hours incurred for the service in the PMS.

Project termination procedures not followed

3.23   According to the Standard Practices, the termination of a consultancy project requires approval by the management. In August 2009, the HKPC advised Audit that the five completed projects examined by Audit (see para. 3.15), including Projects C and D, were actually terminated projects. No work had been carried out for these projects, therefore no consultancy fees were collected. Audit further examined the HKPC's records of these five projects. Audit noted that:

(a)   for four projects, no record was available showing that management approval had been obtained for their termination as required by the Standard Practices; and

(b)   work had actually been carried out for Projects C and D as mentioned in paragraphs 3.17 to 3.22.

Audit recommendations

3.24   **Audit has *recommended* that the HKPC should:**

(a)   **ensure that information maintained in the PMS is accurate and up-to-date;**

(b)   **ascertain the reasons why some projects have been dormant for a long time, and take necessary action either to resume or to terminate them;**

(c)   **ensure that the requirements of the project agreements are strictly complied with to avoid possible contractual disputes;**

(d)   **investigate the reasons why consultancy fees were not received for some projects;**

(e)   **having regard to the outcome of the investigation, take measures to:**

        (i)   **recover the outstanding consultancy fees from the clients concerned;**

        (ii)   **ensure that the project teams follow the instruction of the management and take prompt follow-up action to recover the outstanding consultancy fees; and**

        (iii)   **ensure that consultancy fees are promptly collected in future; and**

(f)   **ensure that procedures for terminating projects as stated in the Standard Practices are properly followed.**

Response from the HKPC

3.25   The HKPC agrees with the audit recommendations. The **ED, HKPC** has said that the HKPC has set up a Task Force to critically review the PMS to ensure that project information is promptly and accurately recorded for better control and management.

Inclusion of overheads in consultancy fees

3.26   The HKPC's pricing guideline stipulated that corporate overheads should not be included in the consultancy fees for clients with less than 100 staff.

Audit observations and recommendation

3.27   Audit reviewed the service fees for 530 consultancy projects approved during the period 2006-07 to 2008-09 for clients with less than 100 staff. **Audit found that in 438 (83%) projects, corporate overheads of $6 million (12%) were included in the total consultancy fees of $52 million charged to the clients (see Table 4).** The charging of corporate overheads to these clients was contrary to the HKPC's pricing guideline.

Table 4

**Corporate overheads charged to clients with less than 100 staff
(2006-07 to 2008-09)**

Year	Number of projects	Number of projects charged with corporate overheads	Percentage
2006-07	189	152	80%
2007-08	170	148	87%
2008-09	171	138	81%
Overall	**530**	**438**	**83%**

Source: Audit analysis of HKPC records

Audit recommendation

3.28   **Audit has *recommended* that the HKPC should ensure that all service fees of consultancy projects are determined in accordance with the HKPC's pricing guideline, otherwise prior approval should be obtained from the management.**

Response from the HKPC

3.29   The HKPC agrees with the audit recommendation. The **ED, HKPC** has said that the pricing guideline was replaced by a new Standard Practice in June 2009. The new Standard Practice stipulates that for consultancy services for clients with fewer than or equal

to 100 employees, full cost recovery is always preferred. If circumstances warrant, partial cost recovery is permitted.

Customer satisfaction assessment

3.30   To assess customer satisfaction for the consultancy services delivered, the HKPC carries out a customer satisfaction survey upon project completion. Questionnaires are sent to the clients, who are requested to assess the level of satisfaction on the HKPC's consultancy services. Based on the results of the survey, a Customer Satisfaction Index (CSI) is compiled. The CSI is reported to the Council annually. The CSI for 2008-09 was 8.6 in a scale of 1 to 10, indicating that the clients were generally satisfied with the HKPC's consultancy services.

Audit observations and recommendations

Response rates of surveys

3.31   The response rates of the surveys for the period 2006-07 to 2008-09 were about 30% (see Table 5). As high response rates will improve the reliability of surveys, the HKPC may consider taking action to improve the response rates.

Table 5

**Response rates of customer satisfaction surveys
(2006-07 to 2008-09)**

| Year | Number of questionnaires | | Response rate |
	Sent	Returned	
2006-07	776	245	32%
2007-08	708	219	31%
2008-09	668	213	32%
Overall	**2,152**	**677**	**31%**

Source: HKPC records

Coverage of customer satisfaction surveys

3.32   In the customer satisfaction surveys, questionnaires are sent to clients only for projects:

(a)   reported as completed in the PMS; and

(b)   with consultancy fees of not less than $5,000.

No questionnaire is sent to clients for terminated projects. Audit examined the records of two terminated projects and noted that they were terminated after the clients had expressed dissatisfaction. **Excluding terminated projects from the customer satisfaction surveys may lead to biased results.**

Audit recommendations

3.33   **Audit has *recommended* that the HKPC should:**

(a)   **consider taking measures to improve the response rate of customer satisfaction surveys (e.g. taking active follow-up actions with clients); and**

(b)   **ensure that all consultancy projects, including the terminated ones, are covered in customer satisfaction surveys.**

Response from the HKPC

3.34   The HKPC agrees with the audit recommendations. The **ED, HKPC** has said that the HKPC will include all consultancy projects, including the terminated ones, in customer satisfaction surveys starting from October 2009. It has also issued reminders to clients to encourage them to complete the surveys.

PART 4: WITHDRAWAL FROM MATURE MARKETS

4.1   This PART reviews the measures adopted by the HKPC in avoiding unfair competition with private service providers and identifies areas where improvements could be made.

Avoiding competition with private service providers

4.2   In June 2001, the HKPC commissioned a consultancy study to assess its role, management and operation. In February 2002, the consultant presented the findings of the study to the HKPC. The study recommended that the HKPC should withdraw services from those areas where the market was mature and subject to private sector competition.

4.3   In April 2002, the Council accepted the consultancy report and decided that the HKPC should:

   (a)   withdraw from mature markets where there was strong private sector presence;

   (b)   stop bidding for government information technology projects unless acting in a project management capacity and teaming up with private service providers;

   (c)   prepare and implement a Dos and Don'ts List; and

   (d)   monitor the implementation of the Dos and Don'ts List and update the List where necessary.

Audit observations and recommendations

Dos and Don'ts List not reviewed or updated

4.4   In July 2002, the Council approved a Dos and Don'ts List and decided that its Business Development Committee should regularly review the List and make recommendations for the Council's consideration.

4.5   Since the approval of the Dos and Don'ts List, the Business Development Committee had not discussed the List until July 2006. In July 2006, in response to a complaint on the HKPC's unfair competition with private service providers, the Business Development Committee agreed that the Dos and Don'ts List should be reviewed biennially, preferably by an external consultant. However, up to September 2009, the Dos and Don'ts List had not been reviewed or updated.

Exit programmes not prepared

4.6   When the Dos and Don'ts List was approved by the Council in July 2002, it was agreed that the HKPC should progressively phase out its "don't" activities within six months. Audit noted that while the HKPC included an exit programme of such activities in the Annual Programmes and Estimates (see para. 1.9) for 2006-07 and 2007-08, **no such information was provided in the Annual Programmes and Estimates for 2008-09 and 2009-10. Table 6 summarises the information provided in the Annual Programmes and Estimates on activities to be withdrawn.**

Table 6

**Information provided in Annual Programmes and Estimates
on activities to be withdrawn
(2006-07 to 2009-10)**

Annual Programmes and Estimates	Information provided
2006-07	● activities withdrawn in previous years ● timetable for activities to be withdrawn in the next three years (i.e. 2006-07 to 2008-09)
2007-08	● timetable for activities to be withdrawn in the next three years (i.e. 2007-08 to 2009-10)
2008-09	● list of activities to be withdrawn (no timetable was specified)
2009-10	● no information was provided

Source: HKPC records

Delays in withdrawing from mature markets

4.7   Audit examination of the exit programmes revealed that there were delays in withdrawing from mature markets. **Moreover, no justification was given for deferring the target withdrawal dates of four "don't" activities in the exit programme included in the Annual Programme and Estimates for 2006-07 (see Table 7).** Furthermore, no report was made on whether the activities planned to be withdrawn by 2008-09 (see items A and B in Table 7) had actually been withdrawn.

Table 7

Target years for withdrawal of activities

Activity	Target stated in exit programme	
	2006-07	**2007-08**
A. Chimney application for restaurants	2007-08	2008-09
B. Generic manufacturing resource planning implementation consultancy	2007-08	2008-09
C. Total suspended particulates and respirable suspended particulates monitoring for infrastructural environmental projects	2008-09	2009-10
D. Manufacturing resource planning data centre hosting service	2008-09	2009-10

Source: Audit analysis of HKPC records

Compliance with exit programmes

4.8   According to exit programmes included in the Annual Programmes and Estimates for 2006-07 and 2007-08, the HKPC should not:

(a)   provide generic training in team building, supervisory management and telephone manner; and

(b)   provide website hosting services for individual companies.

4.9   An audit examination of the training courses and consultancy projects carried out from 2006-07 to 2008-09 revealed that:

(a)   in 2008-09, three training courses on team building and supervisory management were organised by the HKPC; and

(b)   from April 2008 to April 2009, the HKPC provided website hosting services, through outsourcing, to a government department for a computer game on environmental education.

Inconsistencies in assessing market maturity for similar projects

4.10   HKPC project staff assess the level of maturity of the market where HKPC services are provided. Details are as follows:

(a)   *Level 1.*   The services are fully developed by the HKPC and the market has some service providers;

(b)   *Level 2.*   The services are under development by the HKPC. They aim at market sectors that require such services but are lacking or not satisfactorily provided; and

(c)   *Level 3.*   The services are newly developed by the HKPC and there are anticipated and emerging needs from the industry sector.

4.11   Audit reviewed the consultancy projects carried out from 2006-07 to 2008-09 and found that, based on the nature of the services, 61 projects could be classified into 13 groups. An examination of 2 groups of these projects (each comprising 2 projects) indicated that:

(a)   different levels of market maturity were assessed for the projects within the same group; and

(b)   the inconsistencies in the levels of assessed market maturity were not properly justified.

The audit findings are summarised in Table 8.

Table 8

Level of market maturity for similar projects
(2006-07 to 2008-09)

Project group	Assessed market maturity level for	
	First project	**Second project**
Assessment of trade effluent characteristics	Level 1	Level 3
On-site assessment for jewellery companies under a scheme launched by the HKPC in June 2008	Level 1	Level 3

Source: Audit analysis of HKPC records

Audit recommendations

4.12   **Audit has *recommended* that the HKPC should ensure that:**

(a)   **the Dos and Don'ts List is regularly reviewed and updated;**

(b)   **an exit programme is prepared annually showing the timetable for the planned withdrawal of activities from mature markets with strong private sector presence;**

(c)   **the progress of withdrawal of activities is properly documented and reported;**

(d)   **delays in withdrawal from mature markets are fully justified and approved, and the justifications and approvals are properly documented;**

(e)   **the approved exit programme is strictly complied with; and**

(f)   **market maturity assessments are properly conducted and the inconsistencies in market maturity level for similar projects are properly justified.**

Response from the HKPC

4.13   The HKPC agrees with the audit recommendations. The **ED, HKPC** has said that the Audit Committee agreed in July 2009 that the Dos and Don'ts List should be reviewed as soon as possible.

PART 5: MANAGEMENT OF RESEARCH AND DEVELOPMENT PROJECTS

5.1   This PART examines the HKPC's management of R&D projects and identifies areas where improvements could be made.

Background

5.2   The HKPC's R&D projects are mainly funded by the ITF administered by the ITC. From the inception of the ITF in June 1999 to 31 March 2009, the ITF provided $288 million to the HKPC for conducting 108 R&D projects. The ITC issued a "Guide to the ITF" (ITF Guide) to promulgate the procedures and rules that need to be followed by funding recipients. In addition to the requirements stipulated in the Standard Practices, staff who conduct ITF funded R&D projects (ITF projects) need to observe the requirements stated in the ITF Guide and the project agreements signed between the HKPC and the ITC.

5.3   Apart from ITF funding, business units of the HKPC may apply for funding from the HKPC's Commercial Research and Development Fund (CRDF). The CRDF was established in 1997-98 for conducting preliminary R&D projects of a smaller scale. In the period 1997-98 to 2008-09, the CRDF provided $16 million for 48 R&D projects (CRDF projects).

5.4   In order to ascertain the HKPC's effectiveness in managing R&D projects, Audit examined:

(a)   30 ITF projects comprising 25 completed projects and 5 projects that were still in progress as at 31 March 2009; and

(b)   15 completed CRDF projects.

The audit findings and recommendations are given in paragraphs 5.5 to 5.61.

Project planning

5.5   Project proposals of ITF projects have to be submitted to the ITF Panel of Assessors for assessment. The Panel comprises businessmen, technologists, academics and government officials. CRDF project proposals have to be submitted to the HKPC's Vetting Panel, which comprises the ED and Branch Directors, for assessment.

Audit observations and recommendations

Long time taken to revise ITF project proposals

5.6   According to the ITF Guide, the Panel of Assessors may require project proposals to be revised (e.g. revision in the project scope or deliverables) before they are submitted to the ITC for approval.   Audit noted that revisions were required for the proposals of all the 30 ITF projects examined by Audit.   The examination revealed that:

(a)   5 (17%) of the 30 revised ITF project proposals had taken more than three months before they were submitted to the ITC;

(b)   the HKPC had not set any time target for the project teams to revise project proposals; and

(c)   for project proposals taking a long time to revise, the reasons for the delays were not documented.

Long time taken to commence projects

5.7   **Audit examination of the 30 ITF projects revealed that 6 (20%) of them took more than 3 months to commence after they were approved by the ITC.   The longest time taken was 10.5 months.**   There was no documentation showing that assessment had been performed on the impact of the delays (e.g. whether it was still worthwhile to pursue the projects, taking into account the technology and market developments during the delays).

Availability of equipment for sharing not stated in project proposals

5.8   According to the ITF Guide, if a budget for equipment is included in the project proposal, the applicant needs to state whether similar equipment is available for sharing within the applicant's organisation or with other ITF recipient organisations.

5.9   Of the 30 ITF project proposals examined by Audit, 22 (73%) proposals included an equipment budget.   **However, Audit noted that in 16 (73%) of these 22 proposals, the HKPC had not made any statement on the availability of similar equipment for sharing within the HKPC or with other ITF recipient organisations.**

5.10   Audit also noted that there was no similar provision in the Standard Practices to require project teams of CRDF projects to state whether similar equipment was available for sharing within the HKPC.

Project risk management

5.11   Sound project risk management measures are essential for good project management. The measures should ensure that:

(a)   analysis of project risks is conducted to identify the risk factors and assess their potential impact on the project;

(b)   project risks are reassessed throughout the project life cycle;

(c)   results of the risk analysis are properly documented; and

(d)   risk mitigation strategies are formulated and implemented.

5.12   **Audit noted that the HKPC had not established a risk management process as part of its project management system.** To enhance project planning, Audit considers that the HKPC needs to ensure that analysis and reassessment of project risks are carried out throughout the project period. It is also important that the results of the risk analysis and assessment are documented in project proposals and progress reports.

Audit recommendations

5.13   **Audit has *recommended* that the HKPC should:**

(a)   **take measures to ensure that ITF project proposals are revised promptly for submission to the ITC for approval (e.g. a time target should be set for each proposal requiring revision, taking into account the amount of additional work required);**

(b)   **require project teams to document the reasons for any delay in revising project proposals;**

(c)   **ensure that R&D projects commence promptly after obtaining approval. If a delay is inevitable, the impact of the delay should be properly assessed and documented for consideration by the ITC;**

(d)   **remind project teams to check and document in the ITF project proposals the availability of similar equipment for sharing within the HKPC or with other ITF recipient organisations;**

(e)   **consider requiring CRDF project teams to check the availability of equipment for sharing with other units of the HKPC; and**

(f)   **consider revising the Standard Practices to require the project teams to:**

(i)   **analyse project risks during the planning stage;**

(ii)   **reassess the project risks regularly during the project life cycle;**

(iii)   **properly document the results of the risk analysis; and**

(iv)   **formulate risk mitigation strategy and implement appropriate measures to address the project risks identified in the risk analysis.**

Response from the HKPC

5.14   The HKPC agrees with the audit recommendations. The **ED, HKPC** has said that the HKPC will revise the existing Standard Practices to effect the audit recommendations. It will work closely with the ITC to ensure that all ITF projects are conducted in full compliance with the ITF Guide.

Response from the Administration

5.15   The **Commissioner for Innovation and Technology** agrees with the audit recommendations. She has said that the ITC will continue to review from time to time the funding guidelines and procedures with a view to ensuring effective project vetting and monitoring whilst offering a user-friendly system to the relevant stakeholders.

Project management

5.16   The availability of accurate information on project implementation is essential for proper project management. The PMS captures information on progress to facilitate effective monitoring of project implementation.

Audit observations and recommendations

Inaccurate records kept in PMS about project progress

5.17   Project staff are required to input information on project progress to the PMS. An examination of the PMS records of the 25 completed ITF projects and the 15 completed CRDF projects revealed that:

   (a)   no progress information was input into the PMS for 19 (76%) of the 25 ITF projects; and

(b)   the progress information of 3 (20%) of the 15 CRDF projects showed that they were 100% completed within a month after their commencement. However, the project files showed that these 3 projects actually took more than one year to complete.

The inaccurate information recorded in the PMS had affected the effectiveness of project management through the PMS.

Project delays

5.18   **According to the HKPC's records, 23 (92%) of the 25 completed ITF projects and 9 (60%) of the 15 completed CRDF projects examined by Audit experienced delays. The delays ranged from 1 month to about 18 months (see Table 9).** Audit conducted two case studies and found that there were areas with room for improvement. Details of the two cases are summarised at Appendix C.

Table 9

Analysis of project delays

Delay	Number of ITF projects	Number of CRDF projects	Total
1 month to 3 months	7	3	**10**
> 3 months to 6 months	9	3	**12**
> 6 months to 9 months	4	1	**5**
> 9 months to 12 months	3	0	**3**
>12 months to 15 months	0	1	**1**
>15 months to 18 months	0	1	**1**
Total	**23**	**9**	**32**

Source: HKPC records

Late submission of requests for change of project completion date

5.19   According to the ITF Guide, prior approval from the ITC is required for change of project completion date, and the request should be submitted to the ITC well in advance

through the ITC's Funding Administrative System (Note 3). Audit reviewed five requests for change of project completion date. **Audit noted that three requests were made shortly before, and two requests made after, the original project completion date (see Table 10).**

Table 10

Late submission of requests for change of project completion date

Original completion date	Request submission date	Approval date
30.9.2006	13.9.2006	9.10.2006
31.12.2006	**30.1.2007**	6.2.2007
30.4.2007	20.4.2007	3.5.2007
31.3.2008	**3.4.2008**	30.4.2008
9.11.2008	4.11.2008	3.12.2008

Source: ITC records

5.20   In August 2009, the HKPC informed Audit that before the requests for change of project completion date were submitted to the ITC through the Funding Administrative System, the HKPC had informed the ITC of the delays and the need to change the completion date. Audit considers that the communication between the HKPC and the ITC should not have obviated the need to submit the change requests well in advance.

Audit recommendations

5.21   **Audit has *recommended* that the HKPC should take measures to:**

   (a)   **ensure that information about project progress captured in the PMS is accurate;**

   (b)   **improve its project management to avoid undue delay in project completion; and**

Note 3:   *The ITC's Funding Administrative System is a web-based information system to support online management of approved ITF projects.*

(c)   **ensure that requests for change of project completion date are submitted through the Funding Administrative System to the ITC as early as possible and are not made after the completion date.**

Response from the HKPC

5.22   The HKPC agrees with the audit recommendations. The **ED, HKPC** has said that the HKPC will take into account fully the audit recommendations in the overall review of the PMS.

Submission of project accounts and reports

5.23   Project accounts, final reports and performance reports of ITF projects are required to be submitted to the ITC and the HKPC's Business Development Committee. Audit examination of the 25 completed ITF projects revealed that there were areas with room for improvement. The audit findings are reported in paragraphs 5.24 to 5.29.

Audit observations and recommendations

Delays in submission of annual audited project accounts

5.24   According to the ITF Guide, except for projects with duration of less than 18 months, annual audited accounts up to 31 March should be submitted to the ITC on or before 30 June of the same year. Of the 25 completed ITF projects examined by Audit, 3 projects were not required to submit annual audited accounts because their durations were less than 18 months. For another 5 projects, the HKPC was not responsible for the submission of audited accounts because it was either the co-applicant or the implementation agent. For the remaining 17 projects, 23 annual audited accounts had been submitted up to 31 May 2009 (Note 4). **Audit found that 21 (91%) of the 23 accounts were submitted 4 to 254 days late. On average, the submission was late by 65 days.**

Delays in submission of final audited project accounts

5.25   According to the ITF Guide, a final audited project account should be submitted within three months from the project completion date or termination date. For 5 of the 25 completed ITF projects examined by Audit, the HKPC was not responsible for the submission of the final audited accounts (see para. 5.24). As at 31 May 2009, the final audited accounts of 2 projects were not due for submission. **As regards the remaining 18 projects, the submissions of the final audited accounts of:**

Note 4:   *Six projects each submitted two annual audited accounts during their project periods. The remaining 11 projects each submitted one annual audited account.*

(a)   **15 (83%) projects were late (by 5 to 145 days);**

(b)   **2 (11%) projects were overdue (by 1 to 61 days); and**

(c)   **1 (6%) project was on time.**

Details are shown in Table 11.

Table 11

**Submission of final audited accounts for completed ITF projects
(31 May 2009)**

Submission	Number of projects
Late by 5 to 145 days	**15**
Overdue by 1 to 61 days	**2**
On time	**1**
Not yet due	2
Not applicable (HKPC was not responsible for the submission)	5
Total	**25**

Source: Audit analysis of ITC records

Delays in submission of final reports

5.26   According to the ITF Guide, a final report should be submitted to the ITC within two months from the project completion date or termination date. The final report should cover:

(a)   the achievement of individual milestones;

(b)   the achievement of deliverables;

(c)   the major activities during the project period and the results;

(d)   a commercialisation plan; and

(e)   the financial position of the project.

5.27   Audit examined the timeliness of the submission of the final reports for the 25 completed ITF projects. **Audit found that as at 31 May 2009, the submissions of final reports of:**

  (a)   **8 (32%) projects were late (by 1 to 157 days);**

  (b)   **4 (16%) projects were overdue (by 1 to 92 days); and**

  (c)   **13 (52%) projects were on time.**

Details are shown in Table 12.

Table 12

**Submission of final reports for completed ITF projects
(31 May 2009)**

Submission	Number of projects
Late by 1 to 157 days	8 (32%)
Overdue by 1 to 92 days	4 (16%)
On time	13 (52%)
Total	**25 (100%)**

Source: Audit analysis of ITC records

Incomplete information in performance report

5.28   Upon completion of an ITF project, the project team will submit a performance report to the Business Development Committee covering performance on:

  (a)   budget management;

  (b)   compliance with project implementation schedule;

  (c)   target achievements;

  (d)   arousing industry response; and

  (e)   exploring new service opportunities.

However, the submission of the performance report was not stipulated in the Standard Practices.

5.29   There were delays in 23 (92%) of the 25 completed ITF projects examined by Audit (see para. 5.18). An examination of the performance reports of 10 delayed projects revealed that:

(a)   in five projects, the project teams compared the actual completion dates to the original target completion dates, and reported delays in the performance reports. In three (60%) of these five projects, the reasons for the delays were not given in the performance reports; and

(b)   the remaining five projects were delayed by 3 to 12 months as compared to the original target completion dates. However, the project teams compared the actual completion dates to the revised target completion dates, and stated in the performance reports that the projects were completed on schedule.

To facilitate the review of the project teams' performance by the Business Development Committee, Audit considers that the HKPC should ensure that the original target completion date is used for assessing project delays, and the reasons for the project delays are properly analysed and documented in the performance report.

Audit recommendations

5.30   **Audit has *recommended* that the HKPC should:**

(a)   **ensure that the reporting requirements laid down in the ITF Guide are fully complied with;**

(b)   **ensure that project staff provide comprehensive information in the performance report submitted to the Business Development Committee; and**

(c)   **revise the Standard Practices to include the requirement for the submission of performance report to the Business Development Committee.**

Response from the HKPC

5.31   The HKPC agrees with the audit recommendations. The **ED, HKPC** has said that:

(a)   the delay in the submission of audited accounts for the projects to the ITC was largely due to the late completion of audits by the HKPC's external auditor.

Upon receipt of the HKPC's formal warning in September 2009, the external auditor undertook to comply fully with the auditing deadlines; and

(b)   the relevant Standard Practice was revised in August 2009 to reflect the on-going practice of submitting performance reports of all ITF projects to the Business Development Committee.

Response from the Administration

5.32   The **Commissioner for Innovation and Technology** agrees with the audit recommendations. She has said that:

(a)   the ITC's Funding Administrative System keeps track of all on-going ITF projects. Reminders will be issued to project coordinators on submission of outstanding progress reports, final reports and audited accounts; and

(b)   the ITC will look into further measures to facilitate timely submission of project accounts and reports by ITF funding recipients.

Project sponsorship

5.33   The ITF Guide requires all ITF projects to acquire sponsorship to cover at least 10% of the total approved costs. The sponsorship can be in cash or in kind or a combination of both. Audit examined the records of five ITF projects and noted that there was room for improvement.

Audit observations and recommendations

Delays in receiving sponsorship

5.34   According to the ITF Guide, all sponsorship should be received before the end of the project's second last half-yearly cash flow period. **Audit found that there were delays in receiving sponsorship in three (60%) of the five projects examined by Audit (see Table 13).**

Table 13

Delay in receiving sponsorship in three ITF projects

Deadline for receiving sponsorship	Date of receiving sponsorship	Delay (Days)
30.9.2005	17.11.2005	48
30.9.2006	8.2.2007	131
30.9.2008	2.3.2009	153

Source: Audit analysis of ITC records

Evidence to support value of in-kind sponsorship

5.35   According to the ITF project agreement, funding recipient is required to provide evidence to the ITC showing that contributions have been made by the sponsor. Of the five projects examined, three projects received in-kind sponsorship. Audit reviewed the evidence provided by the HKPC to the ITC and noted that:

(a)   in two (67%) projects, the values of the in-kind sponsorship were estimated by the sponsors. No evidence (e.g. quotation or invoice for similar items from a third party) was provided to support the estimated values; and

(b)   in the remaining project (33%), the HKPC obtained a quotation from a third party to support the value estimated by the sponsor. However, the HKPC had not provided the quotation to the ITC.

Audit considers that the HKPC should obtain evidence to support the value of in-kind sponsorship and provide such evidence to the ITC.

Prior approval not obtained for change of sponsors

5.36   According to the ITF Guide, an approved project is required to be carried out strictly in accordance with its proposal appended to the ITF agreement. Any modification, amendment or addition to the project or the agreement requires the prior written approval from the ITC. **In two (40%) of the five ITF projects examined by Audit, project sponsors were changed without obtaining prior approval from the ITC.** The requests for covering approval were all submitted after the sponsorship from the new sponsors had been received (see Table 14).

Table 14

Request for covering approval for change of project sponsors

Date of sponsorship received from new sponsors	Date of request for covering approval
1.11.2006	8.2.2007
7.6.2008 and 11.9.2008	23.10.2008

Source: ITC records

Audit recommendations

5.37   **Audit has *recommended* that the HKPC should ensure that, for ITF projects:**

  (a)   **sponsorship payments are collected in a timely manner and before the end of the project's second last half-yearly cash flow period as required by the ITF Guide;**

  (b)   **sufficient documentary evidence is provided to support the value of in-kind sponsorship; and**

  (c)   **prior approval from the ITC is obtained for changes of project sponsors.**

Response from the HKPC

5.38   The **HKPC** agrees with the audit recommendations.

Project expenditure

5.39   To ensure that public funds are used in a prudent and cost-effective manner, the types of expenses that could be covered by the ITF funding are clearly specified in the ITF Guide. In order to ascertain whether the requirements stipulated in the ITF Guide have been complied with, Audit examined the accounts of 20 ITF projects.

Audit observations and recommendations

Individual item of expenditure exceeded budget by more than 10%

5.40   It is stipulated in the ITF Guide that the actual expenditure for an individual item may exceed at most 10% of its original budgeted expenditure, unless prior approval from the ITC has been obtained.

5.41   Audit examination of the 20 project accounts revealed that:

   (a)   in 10 (50%) projects, the original budgeted expenditure for 19 items were exceeded by 11% to 62%. On average, the actual expenditure for each of the 19 items exceeded the budget by 27%; and

   (b)   no prior approval had been obtained from the ITC.

Unallowed costs

5.42   *Charge of salary increases to project accounts.* According to the ITF Guide, ITF project funds cannot be used to cover annual salary increments, except cost of living adjustment at a rate comparable with and applicable to the civil service. Audit found that, with effect from 1 July 2008, the standard staff cost rates used by the HKPC to charge staff cost to ITF project accounts were increased by a percentage ranging from 5.69% to 6.48% to reflect the annual salary adjustments for 2008-09. Compared to the increase (i.e. 5.29% to 6.30%) for the civil service for the same year, the HKPC's increments were higher. **Contrary to the ITF Guide, the HKPC had not obtained approval from the ITC before charging the increased staff cost to the ITF project accounts.**

5.43   Audit also noted that ten staff engaged in seven ITF projects were promoted during the project periods. After promotion, the HKPC charged the cost of these staff to the project accounts using a higher standard staff cost rate. The rates of increase ranged from 76% to 95%. **Contrary to the ITF Guide, no approval from the ITC was obtained.**

5.44   *Charges for inter-division services.* According to the ITF Guide, project funds should not be used to cover charges for services provided by the recipient organisation. Audit examination of 20 project accounts revealed that:

   (a)   the cost (ranging from $12,400 to $47,400) for patent application service provided by a division of the HKPC was charged to 8 (40%) accounts. The total amount charged was $214,000;

(b)   the cost of $614,800 for in-house laboratory testing services was charged to 6 (30%) accounts; and

(c)   the cost of $320,000 for consultancy services provided by a division of the HKPC was charged to 1 (5%) account.

Audit noted that the HKPC had not obtained prior approval from the ITC in these cases.

5.45   *Charge of overheads to project accounts.* According to the ITF Guide, project funds should not be used to cover general administration and office expenses. Audit found that in 1 (5%) of the 20 project accounts examined by Audit, the HKPC used standard staff cost rates that included an element of overheads to calculate the staff cost for the project. The total amount of overheads charged to the project was $260,000.

Incorrect staff cost charged to project accounts

5.46   In 2002, the ITC informed the HKPC that, while mid-point salaries could be used for budgeting purpose in preparing project proposals, actual salaries should be used for charging staff cost to the accounts. Audit reviewed the staff cost charged to five ITF projects. Audit found that in four (80%) projects, the staff cost was overcharged by 10% to 25%. The actual total staff cost for the four projects was $4.1 million but the total staff cost charged was $4.9 million, i.e. an overcharge of 20%. In the remaining project (20%), the staff cost was undercharged by $60,000, representing 7% of the actual cost of $818,000. Audit analysis revealed that the discrepancies were due to the fact that mid-point salaries were used to calculate the staff cost charged to the projects.

Audit recommendations

5.47   **Audit has *recommended* that the HKPC should:**

(a)   **ensure that the ITF Guide is strictly complied with, in particular:**

(i)   **the actual expenditure of individual budget items does not exceed the budgeted one by more than 10% as permitted under the ITF Guide, unless prior approval from the ITC has been obtained;**

(ii)   **unallowed costs, including salary increases, charges for inter-division services and overheads, are not charged to the project accounts unless prior approval from the ITC has been obtained; and**

(iii)   **actual staff cost is charged to the project accounts;**

(b) **carry out a review of all ITF project accounts to ascertain whether there were other cases of charging unallowed costs or incorrect salary costs; and**

(c) **make the necessary consequential adjustments to the project accounts and take appropriate remedial action.**

Response from the HKPC

5.48 The HKPC agrees with the audit recommendations. The **ED, HKPC** has said that the HKPC will step up efforts in ensuring that all project teams will conduct their projects in full compliance with the ITF Guide. The HKPC will carry out a comprehensive review of its ITF projects as soon as possible.

Response from the Administration

5.49 The **Commissioner for Innovation and Technology** agrees with the audit recommendations. She has said that the ITC will:

(a) consider issuing more detailed guidelines to the HKPC in areas like staff costs, procurement of research equipment, in-house research support, and industry sponsorship; and

(b) work closely with the HKPC in reviewing the relevant project accounts as appropriate.

Return of residual funds

5.50 According to the ITF Guide, recipient organisations should return all residual funds remaining in the project accounts to the Government within 90 days after completing the project.

Audit observations and recommendation

5.51 Audit noted that in one project, the HKPC took about 18 months to return all residual funds to the Government. The project was completed in December 2006. According to the HKPC, the residual funds of the project included interest income of $20,200 and the proceeds of $850,000 from the sale of a machine developed by the project.

5.52   Audit examination of the HKPC records revealed that:

(a)   in December 2006, the tendering for the sale of the machine was completed, and the buyer paid a deposit of $180,000 to the HKPC;

(b)   the final audited accounts for the project was submitted to the ITC in April 2007;

(c)   the HKPC returned the interest income of $20,200 to the ITC as part of the project residual funds in July 2007 (i.e. seven months after completing the project);

(d)   the buyer repeatedly requested the HKPC to defer the delivery of the machine. The machine was eventually delivered and installed in January 2008, twelve months after the tendering was completed;

(e)   according to the contract signed by the buyer, the balance of payment should be made within a month after the machine was delivered and installed. However, the balance of payment was not received until May 2008; and

(f)   the HKPC returned $856,000 to the ITC in June 2008 as the balance of the residual funds of the project.

5.53   Although the late return of the balance of the residual funds was mainly caused by the late delivery of the machine and payment by the buyer, Audit considers that the HKPC should have returned to the ITC the interest income of $20,200, and the deposit of $180,000 collected from the buyer within the period of 90 days after completing the project.

Audit recommendation

5.54   **Audit has *recommended* that the HKPC should devise effective control measures to ensure that residual funds of ITF projects are promptly returned to the Government in accordance with the ITF Guide.**

Response from the HKPC

5.55   The **HKPC** agrees with the audit recommendation.

Standard staff cost rates

5.56   The HKPC uses standard staff cost rates for charging staff costs to R&D projects and training and consultancy services. The standard staff cost rates used for CRDF projects and training and consultancy services included a component to cover overheads (Note 5).

Audit observations and recommendations

Estimation of staff hours spent on administrative work

5.57   At the beginning of every financial year, staff are required to estimate the percentages of the staff hours that they will spend on project work and administrative work. The information collected is used to calculate the overheads component included in the standard staff cost rates.   Audit compared the estimated percentages of staff hours for 2008-09 submitted by 25 staff to the HKPC's records of actual staff hours spent on administrative work. **Audit found that the average percentages of staff hours spent on administrative work were 18% to 49% more than those estimated (see Table 15).**

Table 15

Percentages of time spent on administrative work

| Number of staff | Percentage of staff hours spent on administrative work | | | | |
| | Estimated by staff (a) | Actual kept by the HKPC | | Variance | |
		Range (b)	Average (c)	Range (b) - (a)	Average (c) - (a)
18	0%	6% to 80%	35%	6% to 80%	35%
6	5%	3% to 100%	54%	-2% to 95%	49%
1	10%	28%	28%	18%	18%

Source: Audit analysis of HKPC records

Note 5:   *Overheads were not included in the standard staff cost rate for charging staff cost to ITF projects. According to the ITF Guide, ITF funds should not be used to cover overheads.*

5.58   The HKPC explained to Audit in August 2009 that the records of staff hours spent on administrative work had included those spent on some project related work, such as prospective studies for consultancy projects where staff hours were not recorded (see para. 3.5(a)). The actual percentages of staff hours spent on administrative work were less than those reported in Table 15.

5.59   As the amounts of overheads included in the standard staff cost rates are calculated based on the staff hours spent on administrative work, incorrect estimations and recording of these staff hours have affected the accuracy of such rates. In order to ensure that the standard staff cost rates are determined objectively, the HKPC should record the staff hours spent on administrative work accurately and make more reliable estimates.

Time spent on public mission activities

5.60   According to the HKPC's pricing policy, staff costs incurred for public mission activities (e.g. reception of official visitors and community services) should be excluded from the calculation of overheads. Audit noted that prior to July 2007, staff were required to keep records of the staff hours spent on public mission activities. However, with effect from 1 July 2007, this requirement was removed. As a result, accurate information of the time spent on public mission activities was not available. This might affect the accuracy of the calculation of overheads included in the standard staff cost rates.

Audit recommendations

5.61   **Audit has *recommended* that the HKPC should consider requiring all staff to:**

   (a)   **record the staff hours spent on administrative work and public mission activities accurately; and**

   (b)   **provide reliable estimates of the time spent on such activities for the determination of the standard staff cost rates.**

Response from the HKPC

5.62   The **HKPC** agrees with the audit recommendations.

**Hong Kong Productivity Council
Organisation chart
(31 March 2009)**

```
                        ┌──────────────┐
                        │  Executive   │
                        │  Director    │
                        └──────┬───────┘
         ┌─────────────────────┼─────────────────────┐
┌────────┴─────────┐  ┌────────┴─────────┐  ┌─────────┴────────┐
│ Technology       │  │ Business         │  │ Corporate        │
│ Development      │  │ Consulting       │  │ Services         │
│ Branch           │  │ Branch           │  │ Branch           │
└────────┬─────────┘  └────────┬─────────┘  └─────────┬────────┘
```

Technology Development Branch	Business Consulting Branch	Corporate Services Branch
Innovation and Intellectual Property Division	Information Technology Industry Development Division	Corporate Communications Division
Automotive and Electronics Division	Process Management Division	Finance Division
Environmental Management Division	Business Management Division	Human Resources and Administration Division
Manufacturing Technology Division	Productivity Training Institute	
Materials Technology Division		

Source: HKPC records

Project life cycle flow chart of consultancy projects

```
              ┌─────────────────────────────────┐
              │ Carry out project prospective study │
              └─────────────────────────────────┘
                            │
              ┌─────────────────────────────────┐      ┌──────────┐
              │ Prepare project plan and estimates │─────▶│ PMS input │
              └─────────────────────────────────┘      └──────────┘
                            │
   ┌───────────┐   No    ◇ Client accepts
   │Termination│◀────────  the plan?
   └───────────┘             │ Yes
                  ┌───────────────────────────┐
                  │ Finalise project proposal  │
                  │ and project estimates      │
                  └───────────────────────────┘
                            │
   ┌───────────┐   No    ◇ Management
   │Disapproved│◀────────  approves the proposal?
   │  project  │            │ Yes
   └───────────┘
   ┌───────────┐   No    ◇ Client accepts
   │ Unaccepted│◀────────  the proposal?
   │  project  │            │ Yes
   └───────────┘
                  ┌───────────────────────────┐
                  │ Project commencement       │
                  └───────────────────────────┘
                            │
   ┌───────────┐  No  ◇ Project satisfactorily  Yes  ┌──────────┐
   │ Terminated│◀────── completed?  ─────────────────▶│ Completed │
   │  project  │                                      │  project  │
   └───────────┘                                      └──────────┘
                  ┌───────────────────────────┐
                  │ Close project              │
                  └───────────────────────────┘
```

Source: Audit analysis of HKPC records

Case studies of delayed ITF projects

Case 1

(1)   An ITF project was approved in March 2003 to develop a textile material treatment system for process demonstration and evaluation. The project was expected to build up local knowledge to take up the technology. The target project completion date was November 2005. In the project proposal, the last six months of the project were planned for system optimisation and dissemination of the new technology to the industry.

(2)   In February 2005, the project team finalised the design of the system. In March 2005, a tendering exercise was carried out to select a supplier for the fabrication of the system. The selected tenderer estimated that the fabrication would take about six months. The system was targeted to be delivered by October 2005, leaving only about one month (instead of six months as stated in the project proposal) for system optimisation and dissemination of the new technology. Although a project delay was inevitable, the project team had not sought the ITC's approval for extension of the project completion date.

(3)   During the system fabrication stage, a number of problems arose, including the delay in sourcing a key component, and changes to the system design. These caused serious delays in the delivery of the system. In October 2005, the project team requested the ITC to revise the target project completion date to May 2006. However, further delays were experienced. Another approval from the ITC was sought in May 2006 to extend the target completion date to September 2006.

(4)   The system was eventually delivered in July 2006, leaving just two months for system optimisation and dissemination of the new technology. The project was completed in September 2006. Compared to the original target completion date, the project was delayed by ten months.

Audit comments

Audit considers that the project team might have underestimated the time required for the task involved. This was evidenced by the facts that a long time was taken to complete the original design of the system, and that various changes were needed to be made to the system design during the fabrication stage.

Audit also noted that the project team had not taken prompt action to seek approval from the ITC to extend the project completion date when they envisaged the project delay.

Case 2

(1)   The funding recipient was an industry association. The HKPC was appointed to carry out the project. The project was originally expected to commence in April 2006. According to the ITF Guide, evidence showing that a project bank account had been opened should be submitted before funding from the ITF would be disbursed. According to the ITC records, the required evidence was submitted in November 2006 (i.e. seven months after the original project commencement date). The commencement of the project was therefore delayed.

(2)   According to the HKPC, the late submission of the required evidence was due to the fact that the funding recipient had difficulties in opening the bank account.

(3)   Due to the delay in opening the bank account, no research activity was conducted during the period April to July 2006. In reviewing the progress, the ITC commented that some of the problems associated with the opening of the bank account were due to poor project management. The HKPC should have better managed the procedures in opening the bank account, and implemented the necessary contingency plan to resolve the problems. The ITF Panel of Assessors echoed the ITC's comments, and remarked that the failure to open the bank account on time was a reflection of poor project management capability.

Audit comments

Owing to the late commencement, the project was delayed. Audit considers that the HKPC should have worked out an alternative arrangement with the funding recipient as early as possible in order to avoid or shorten the delay.

Source: HKPC records

Acronyms and abbreviations

Audit	Audit Commission
CE	Chief Executive
CRDF	Commercial Research and Development Fund
CSI	Customer Satisfaction Index
ED	Executive Director
HKPC	Hong Kong Productivity Council
ITC	Innovation and Technology Commission
ITF	Innovation and Technology Fund
MAA	Memorandum of Administrative Arrangements
PMS	Project Management System
PRD	Pearl River Delta
R&D	Research and development