Republic of the Philippines

Ex-Post Evaluation of Japanese Technical Cooperation Project:

"Information Technology Human Resource Development Project"

External Evaluator: Yuko Sugiyama, Octavia Japan Co., Ltd.

0. Summary

In order for the University of the Philippines Information Technology Training Institute (UP ITTC) to implement Information and Technology (IT) training efficiently for university graduates and IT engineers in a manner that will meet the needs of the IT industry, assistance for the development and implementation of the training courses, as well as industry collaboration, was conducted through this project. The purpose of this project was consistent with the development policies and needs of the Philippines, as well as Japanese aid policies. Thus the relevance of the project is high. Although the project purpose was achieved, the overall goal of 400 graduates per year was not achieved, due to the insufficient capacity of the facilities, a shift in focus away from the training centre to the development centre and a reduced number of scholarships. As a result, the effectiveness/impact of the project is considered to be fair.

Though the project costs fell within the proposed budget (86% of the overall outlay), the project period exceeded the project plan (125% of the original plan). Therefore, the efficiency of the project is considered fair. Regarding sustainability, no major problems were found in terms of the policy background, technical or financial aspects of the implementing agency. Some problems were observed in terms of institutional aspects, such as unclear divisions between the roles of the implementing agency and other concerned organizations, as well as weak collaboration with the IT industry in terms of scholarships. Therefore, the sustainability of the project is considered to be fair.

In light of the above, this project is evaluated as being partially satisfactory.

1. Project Description

(Project Location)

(Training room)

1.1 Background

In the Republic of the Philippines, the Information Technology and Electronic Commerce Council (ITECC) included the 'ITECC Strategic Roadmap 2003' as part of the 'Philippines National Science and Technology Plan'. In this Roadmap, programmes and activities in the field of IT promotion were suggested for implementation. The University of the Philippines (UP) in consideration of supporting the realization of the above mentioned 'ITECC Strategic Roadmap' set up a plan to establish the UP ITTC for the purpose of IT human resource development as part of its own science and technology park project, which promotes University-Industry partnerships, as well as the development of the IT industry.

Under these circumstances, the Philippine Government requested technical cooperation from Japan to establish the UP ITTC in April 2001. The request called for assistance in establishing a training centre that would implement IT training for 400 university graduates, in addition to providing transfer of the necessary skills and technology for the centre's operation to faculty members and counterparts (C/Ps)[1] at UP. Against this background, this project was initiated and expected to play a major role in IT human resource development in the Republic of the Philippines and to contribute to building University-Industry partnerships in the Philippines. The duration of the project was expected to be four years, starting from 20 July 2004. However, it was extended for one year after having received a recommendation from the terminal evaluation team. After JICA and UP signed the Record of Discussion (R/D) in June 2004, JICA began to dispatch Japanese experts in July 2004.[2]

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[1] 'Counterparts' refers to individuals who are related to the project implementation.
[2] Source: Terminal Evaluation Report

1.2 Project Outline

Overall Goal		Skilled IT engineers with the potential to be core IT staff in the relevant business sector will be continuously supplied through the activities of UP ITTC.
Project Purpose		To provide university/college IT course graduates and IT engineers with the appropriate IT training courses for enhancing their skills and knowledge in order to meet the needs of the IT industry in the Philippines.
Outputs	Output 0	Organizational and operational functions of the project and UP ITTC are established and strengthened.
	Output 1	Teaching skills and knowledge of UP ITTC lecturers are improved for core IT courses, applications development, embedded systems and network systems.
	Output 2	Management capacity of UP ITTC is capable of providing IT training courses on its own in a sustainable manner, with satisfactory quality and corresponding to the needs of the IT industry (planning training courses, developing and revising curriculums, training materials and teaching methods).
	Output 3	Establish and maintain strong partnerships with the IT industry for curriculum development, sponsorship, employment opportunities, etc.
	Output 4	The project/UP ITCC are recognized as an IT training centre/institute.
Inputs		Japanese side: 1. Experts: 31 8 for Long-Term, 23 for Short-Term 2. 13 Trainees received (trainings in Japan) 3. Equipment 185 million yen 4. Local Cost 9.7 million yen Philippines side: (about 63 million yen) 1. Counterparts (about 20 million yen): Project Director, Project Manager, C/Ps, permanent staff, etc. 2. Land and facilities (about 3 million yen): Project Office, server room, training and development room, classrooms (4) 3. Local Cost (about 40 million yen): training and

	development costs, implementation costs, utility costs, etc.
Total cost	582 million yen
Period of Cooperation	R/D: July 2004 – July 2008 Extension Period: July 2008 – July 2009
Implementing Agency	University of the Philippines UP ITTC (changed to UP ITDC in 2012)
Cooperation Agency in Japan	Tokyo Institute of Technology, Center of the International Cooperation for Computerization
Related Projects	Advanced IT Human Resource Development Project (March 2010 – February 2011)　(Technical Cooperation)

1.3 Outline of the Terminal Evaluation

1.3.1　Achievement of Project Purpose at the time of the Terminal Evaluation

It was confirmed that the management of the project/UP ITTC was stable, as an adequate budget had been proposed and executed from both the Philippines and Japanese sides during the project period. Additionally, an adequate number of full-time instructors, as well as part-time instructors, had been secured. In addition, 100% of the graduates were employed in IT related positions (in 2006 and 2007), while 82% of IT companies targeted in this survey (52 out of 66 companies) showed a high interest in employing UP ITTC graduates, according to an IT needs survey. In light of these results, the project purpose was expected to be achieved.

1.3.2　Achievement of Overall Goal at the time of the Terminal Evaluation

At the time of the terminal evaluation, the capacity of the UP ITTC for full-time course was 100 trainees per year and the facility, which is able to produce 400 graduates annually, was not prepared. Therefore, the achievement of the overall goal was expected to be low.

1.3.3　Recommendations at the time of the Terminal Evaluation

At the time of the terminal evaluation, the following recommendations were made to be implemented following project completion: 1) maintenance of training programmes; 2) maintenance of partnerships with the IT industry; 3) continuous fundraising activities, such as 'Youth Congress for Information Technology (Y4IT)[3]'; 4) allocation of team leaders for marketing and administrative teams; 5) strengthening of marketing activities for the IT industry; 6) consideration given to the dispatch of Japanese experts (in the field of equipment maintenance, curriculum formulation and industry collaboration).

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[3] A conference that provides students in the Philippines with the opportunity to learn about various areas of IT from IT related people.

2. Outline of the Evaluation Study

2.1 External Evaluator

Yuko Sugiyama, Octavia Japan Co., Ltd.

2.2 Duration of Evaluation Study

Duration of the Study: November 2013 – September 2014

Duration of the Field Study: February 9-22 and April 21-27, 2014

2.3 Constraints during the Evaluation Study

In this ex-post evaluation survey, a beneficiary survey using questionnaires was conducted among UP ITTC graduates (who had graduated from 2008 to 2013) and IT companies that employed them in order to measure the project's outcomes. Questionnaires were sent to 215 graduates and 37 graduates responded. Additionally, questionnaires were sent to 22 IT companies, but only two valid responses were returned. The reasons for why IT companies did not reply were because the person in charge of Human Resource was absent, or that graduates had already left the companies and did not see any advantages in answering the questionnaires. Since there was difficulty in terms of collecting a significant number of questionnaires for statistical purposes, the data obtained through the interviews conducted with 11 companies during the study was utilized for analysis in this report.

3. Results of the Evaluation (Overall Rating: C[4])

3.1 Relevance (Rating: ③[5])

3.1.1 Relevance to the Development Plan of the Republic of the Philippines

IT was found to be pervasive in the Philippines to some extent. However, from an industry structure point of view, there was a tendency for a larger focus to be placed on hardware manufacturing and assembling, which requires comparatively easy yet labour-intensive work. Thus, the IT industry in the Philippines was found to be largely influenced by the economic trends within developed countries. In light of this, the IT industry in the Philippines needs to shift its focus to high-valued industries, such as software development. Concurrently, IT human resource development was found to be a major issue in the Philippines.

The Philippine Government made 'ITECC Roadmap 2003' a part of the 'Philippines National Science and Technology Plan' from 2001 to 2020. In this Roadmap, IT human resource development was set as one of the important issues needing to be addressed in

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[4] A: Highly satisfactory; B: Satisfactory; C: Partially satisfactory; D: Unsatisfactory
[5] ③: High, ②：Fair, ①：Low

order for the Philippines to become a knowledge centre within Asia in the 21st century.[6] In addition, the 'ICT Strategic Roadmap for 2006-2010' was created in 2006 and IT human resource development was established as one of the Roadmap's important issues. Moreover, the 'Mid-term National Development Policy (2004-2010)' was set by National Economic Development Agency (NEDA), in order to supply stable human resources in terms of IT professionals. In this policy, it was recommended that IT industry promote the establishment of a human resource development programme in the field of software development, which is one of the five priority areas of IT promotion.[7] As stated above, the development of IT human resources in the Philippines with adequate skills and knowledge was set as one of the national priority issues from the beginning until the end of the project (2004-2009). Additionally, the activities for attaining the above-mentioned goal had been promoted during that time. Therefore, this project, which aimed to develop capable IT human resources, showed high relevance in terms of IT development policies in the Philippines.

3.1.2 Relevance to the Development Needs of the Republic of the Philippines

In order to forge an IT nation for economic development, it was necessary that the Philippines shift its subcontracting economic structure to focus on higher-valued IT industries such as software development. However, the level of IT engineers' skills in the Philippines was low and there was a gap in terms of quality human resources between the actual supply provided by educational institutions and the demand from within the IT industry. Although more than three million IT-related human resources were being developed annually in higher education and training institutions in the Philippines, a significant proportion of these trainings focused on programming and general software utilities. Furthermore, high quality training courses were seldom prepared at undergraduate level. To this end, UP, as an institution with the highest academic ability in the Philippines, drew up a plan to establish UP ITTC, in order to develop advanced and practical IT human resources targeting university graduates as part of its own programmes, thereby contributing to the achievement of the National Scientific Technology Plan[8]. As a result, it was concluded that the implementation of this project was consistent with the IT industry needs in the Philippines.

Even after the project started, the above-mentioned shortage of human resources continued to be an issue. However, BPO (Business Process Outsourcing)/ITO (Information Technology Outsourcing)[9] industries had developed radically, showing a

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[6] Source: Implementing Study Report (Japanese)
[7] Source: Terminal Evaluation Report
[8] Source: Implementing Study Report (Japanese) and Terminal Evaluation Report
[9] Source: http://www.jetro.go.jp/jfile/report/05001603/SODEC%202009.pdf

high annual average growth rate of 42% from 2004 to 2008.[10] This accelerated the demand for human resources in the IT field. Therefore, even at the project's completion, it was considered that the supply of more human resources for meeting the increasing IT industry needs was essential. As such, it was confirmed that there was a need for high quality human resources at the time of project completion.[11]

3.1.3 Relevance to Japan's ODA Policy

Japanese Country Assistance Policy for Philippines in 2000 has raised 'strengthening economic structure for sustainable development and overcoming constraints towards economic growth' as priority issues and this project has contributed to this aim. Additionally, the JICA Country Programme for the Philippines has set the 'development of human resources and establishment of its system' as one of the priorities within the cooperation between the two countries. Thus, this project was implemented for contributing to human resource development in IT promotion. In addition, this project was requested in conjunction with the Kyusyu Okinawa Summit held in July 2000 and was consistent with the Japanese IT international strategy 'Asia IT Initiative (AITI)'[12]. As such, this project was considered to be consistent with Japanese ODA policies.

This project has been highly relevant to the IT development plan and development needs in the Philippines, as well as to Japan's ODA policy. Therefore, its relevance was concluded as having been high.

3.2 Effectiveness and Impact[13] (Rating :②)
3.2.1 Effectiveness
3.2.1.1 Project Output
1) *Output 0: Organizational and operational functions of the project and UP ITTC are established and strengthened.*

It was confirmed that indicators 0-1 to 0-3 had been achieved at the time of the project's completion; thus, it is considered that Output 0 had been achieved.

Indicator 0-1: various administrative items are traced and recorded with the establishment of a management system, staff and budget.

According to the Terminal Evaluation Report and interviews with the C/Ps, it was confirmed that various administrative items such as the list of equipment, accounting

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[10] Source: Information Technology and Business Process Association of the Philippines (IBPAP)
[11] Source: Interviews with C/Ps, IT related institutions and IT companies
[12] By utilizing e-Learning, it is aimed to promote mutual economic development through developing IT engineers/professionals with advanced skills in the environment of Japanese language and through strengthening the partnership of IT industries in both countries.
[13] Sub-rating for Effectiveness is to be put with consideration of Impact.

report, organizational chart and list of officials were traced and recorded appropriately by the end of project completion. Thus, this indicator is considered to be achieved.

Indicator 0-2: personnel, facilities, equipment and a budget for training are appropriately secured.

According to the Terminal Evaluation Report and interviews with the C/Ps, it was confirmed that personnel, facilities, equipment and a budget for training had been appropriately allocated at the project's completion. This indicator was therefore considered as having been achieved.

Indicator 0-3: utilization/maintenance of installed machinery and equipment is recorded.

At the time of the terminal evaluation, it was confirmed that provided equipment was recorded in the Deed of Donation which was made by JICA and maintained by UP. Maintenance of the equipment was reported at every project meeting. According to the documents provided by JICA and the interviews conducted with C/Ps, this equipment was maintained appropriately up to the project's completion and handed over with following the signing between JICA and UP. Thus, this indicator is considered to have been achieved.

2) *Output 1: Teaching skills and knowledge of UP ITTC lecturers are improved for core IT courses, applications development, embedded systems and network systems.*

It was confirmed that indicators 1-1 and 1-2 had been achieved at the time of the project's completion; therefore, it is considered that the Output 1 had been achieved.

Indicator 1-1: technical knowledge and skills of C/Ps are improved through various trainings:

Different training methods for each specialization (IT core, application development, embedded systems and network systems) were conducted during the project period. Additionally, C/Ps commented that they had acquired sufficient technical knowledge and skills for conducting their own specific training through these training methods. This was particularly the case in the field of embedded systems, due to a lack of local experts. As such, the contribution of technical transfers on behalf of Japanese experts was significant. Thus, this indicator is considered to have been achieved.

Indicator 1-2: technical knowledge and skills of C/Ps are improved through technical transfer among C/Ps.

By conducting interviews with C/Ps, it was confirmed that when they received technical transfers from Japanese experts or when they attended external training sessions, internal training sessions were also conducted with other instructors during the project period in order to share the knowledge and skills acquired through the above occasions. Furthermore, a mutual evaluation system was established by observing their lessons.

Moreover, it was confirmed that some C/Ps had improved their skills through short-term courses provided by UP ITTC. Thus, the indicator is considered to have been achieved.

3) *Output 2: Management capacity of UP ITTC is capable of providing IT training courses on its own in a sustainable manner, with satisfactory quality and corresponding to the needs of the IT industry (planning training courses, developing and revising curriculums, training materials and teaching methods).*

It was confirmed that indicators 2-1 to 2-9 had been achieved at the time of the project's completion; therefore, it is considered that Output 2 had been achieved.

Indicator 2-1: overall training plan is created.

According to the interviews with C/Ps, a general assembly was conducted each year in which all the UP ITTC staff participated. During this assembly, an overall training plan (including seminar/event plan) was created. Thus, the indicator is considered to have been achieved.

Indicator 2-2: curriculum, teaching materials and a course guide within the guidelines for instructors of each course are developed, based on the overall training plan.

According to the documents provided by JICA and the interviews conducted with C/Ps, it was confirmed that a curriculum working group meeting (CWG meeting)14 had been held periodically (half-yearly or yearly) for each subject during the project period. In these meetings, the development policy for the curriculum, training equipment and guidelines for the instructors of each course were decided upon and created after the meeting. Thus, the indicator is considered to have been achieved.

Indicator 2-3: conducting instructor training according to plan.

According to the Project Completion Report[15], 13 types of instructor training were conducted by local or Japanese experts as noted within the project plan.

Indicator 2-4: conducting training courses for a total of 1,700 participants: 200 full-time, 1,500 part-time (short courses).

The number of full-time course graduates was 27 (Year 2005[16]), 57 (2006), 74 (2007) and 63 (2008), which was 221 in total. This figure was beyond the indicator of 200. Additionally, the total number of participants in part-time courses (short-term courses) was 2,166 over four years, which exceeded the indicator of 1,500. Thus, this indicator is considered to have been achieved.

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[14] During the project period, this meeting was conducted twice as 'Curriculum Working Group Task Force' (CWTF) during certain periods of time. However, both meetings had the same objectives.
[15] UP ITTC Final Report
[16] School Year 2005 refers to June 2005 – March 2006 (and similarly for dates following 2006).

Table 1: Full-time course graduates and participants in short-term courses

(Unit: persons)

Year	2005	2006	2007	2008	Total
Full-time course	27	57	74	63	221
Short-term course	71	435	771	889	2,166

Source: Answered questionnaire

Indicator 2-5: conducting special seminars several times annually to increase understanding of the project.

Y4IT was conducted each year during the project period. The number of participants was 5500 (Year 2004), 7500 (2005), 12,500 (2006), 16,000 (2007) and 18,000 (2008), which was 59 500 in total.[17] Additionally, according to the interviews with C/Ps, it was confirmed that UP ITTC staff participated in various seminars and meetings held in the Philippines and actively advertised UP ITTC. In addition, UP ITTC received visiting students on 'Educational Tours' and provided them with a briefing about course contents and other details. Furthermore, it was indicated in the Project Completion Report that instructors of UP ITTC had visited other universities where they had conducted various lectures related to IT (such as the roles of IT in the world market and network design). Thus, this indicator was considered to have been achieved.

Indicator 2-6: revision of courses based on the needs collected through course evaluation by participants and industry.

According to the interviews with C/Ps and the documents provided by JICA, a CWG meeting was conducted periodically for each specialization in the field of IT. In this meeting, results from the online survey completed by trainees and the needs of the IT industry were reflected to assist curriculum development and/or revision. Thus, this indicator is considered to have been achieved.

Indicator 2-7: evaluation guideline is prepared.

According to the interviews with C/Ps, evaluation guidelines for instructors were developed and distributed to all instructors. It was also confirmed that evaluation had been implemented based on said guidelines.

Indicator 2-8: more than 80% of participants in full-time and part-time courses are satisfied with the training.

According to the results of the beneficiary survey, 83% of the graduates who graduated prior to the project's completion responded that they were satisfied with the content of the training. Additionally, the interviews with graduates at the time of terminal evaluation and ex-post evaluation showed that most graduates commented that they were satisfied with

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[17] Source: Answered questionnaire

the content of the training. Thus, this indicator is considered to have been achieved.

Indicator 2-9: the passing rate of the JITSE-Phil[18] examination for full-time course participants becomes higher than that of the average passing rate for the Philippines.

The passing rates for PhilNITS amongst UP ITTC trainees were 19.2% (2005), 35.1% (2006), 21.9% (2007) and 18.3% (2008). On the other hand, in the Philippines, these rates were 14%, 11%, 19.5% and 7.7% for each year, respectively. This shows that the passing rate of UP ITTC trainees exceeded that of the Philippines. Thus, this indicator is considered to have been achieved.

Table 2: The number of PhilNITS passers and passing rates

Year	Number of Passers	Passing rate of UP ITTC trainees	Passing rate of the Philippines
2005	5	19.2%	14%
2006	20	35.1%	11%
2007	16	21.9%	19.5%
2008	11	18.3%	7.7%

Source: Documents provided by PhilNITS, UP ITTC Final Report

4) *Output 3: Establish and maintain strong partnerships with the IT industry for curriculum development, sponsorship, employment opportunities, etc.*

While indicator 3-2 was achieved, indicators 3-1, 3-3, 3-4 and 3-5 were achieved only to a medium degree. Thus, the achievement level of Output 3 is considered to have been realized to a medium degree.

Indicator 3-1: a large number of job and scholarship opportunities are provided by IT-related companies for full-time course trainees.

The number of sponsors and scholarships was 7 companies/14 scholars (Year 2005), 19/34 (2006), 10/30 (2007) and 11/23 (2008) (see Table 3). Although UP ITTC secured scholarships from IT companies during the project period, the number for these scholarships began to decrease from 2007. Some of the C/Ps commented that the decrease in scholarships had been affected by the global economic depression. However, one of the interviewed companies providing sponsorship stated that follow-up of the outcomes of the scholarship by UP ITDC was not enough. This indicates that the decrease in scholarships cannot be attributed only to the economic depression, but perhaps also to some extent due to a lack of marketing on behalf of UP ITTC.[19] As shown in Table 4, employment rates for IT-related jobs were relatively high during the project period,

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[18] The name was changed to the Philippine National IT Standards Foundation (PhilNITS) in August 2004.
[19] See '3-2-2. Impact' for details.

indicating that 79% of graduates contracted IT-related jobs[20]. Thus, the achievement level of this indicator is considered to have been achieved to a medium degree.

Table 3: Number of scholarships and sponsored companies during the project period

Year	2005	2006	2007	2008
Scholarships	14	34	30	23
Sponsored companies	7	19	10	11

Source: Answered questionnaire.

Table 4: Employment rates of graduates in IT-related companies

Year	2005	2006	2007	2008
Employment rate in IT related companies	79%	79%	79%	79%

Source: Answered questionnaire.

Indicator 3-2: IT engineers in private industries actively participate in teaching activities in UP ITTC.

Interviews with C/Ps indicated that a number of engineers from within the IT industry had opportunities to be instructors for full-time, as well as part-time course. Additionally, in order for trainees to have an opportunity to select their specialization, UP ITTC held lectures titled 'Career Talk', in which they invited individuals working in the IT industry to talk about their work. Thus, this indicator is considered to have been achieved.

Indicator 3-3: advisory board meetings are held at least twice annually.

The objective of the advisory board meetings (ITTC advisory committee) was to propose and make a request regarding the management and direction of UP ITTC in cooperation with representatives from the Philippine Government and the IT industry. These meetings were held with JCC[21] for a total of seven times by the project's completion. Since the project period was five years, the objective indicator (at least 10 times) was not achieved. Thus, the achievement level of this indicator is considered to have been achieved to a medium degree.

Indicator 3-4: curriculum working group meetings (CWG meetings) and industry collaboration working group meetings (ICWG meetings) are held according to plan.

According to the documents provided by JICA, although the CWG meetings were set out as a space for discussing the curriculum, it became difficult to cope with the

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[20] Percentage of employed graduates amongst overall number of graduates per year.
[21] Joint Coordination Committee. All the stakeholders of the project gather and discuss project management in this meeting.

expanding scope of the discussions. Thus, these meetings were changed to curriculum working task force (CWTF) meetings and held for each specialization in association with participation from the IT industry. Once the curriculum had been confirmed, the CWTF meetings were abolished in March 2008. In October 2008, the CWG meetings were re-instated to discuss the full-time course curriculum. At the time of the project's completion, discussions about the curriculum were being held quarterly or half-yearly. ICWG meetings were aimed at promoting partnership between industry and academes and to report the results of the scholarship programmes to sponsors. Although this meeting was held four times in total, it had not been conducted since April 2006.[22] Therefore, the collaboration with IT industry was only at the CWG meeting since 2006. As CWG meeting was aimed to discuss about and develop the course which can meet IT industry needs, it is different from the aim of ICWG (request for sponsors and scholarships). Thus, the achievement level of this indicator is considered to be medium degree.

Indicator 3-5: donations from Industries are provided.

As mentioned in indicator 3-1, although UP ITTC annually obtained sponsorships from IT companies during the project period, the number of the scholarships started to decline year by year since 2007. Therefore, the achievement level of this indicator is considered to be medium degree.

5) *Output 4 : The project and UP ITCC is recognized as an IT training centre/institute.*

While the indicators 4-1, 4-3 and 4-4 were achieved, the achievement level of indicator 4-2 was medium degree. This output aimed to measure the recognition level of UP ITTC as a training centre/institute. Although achievement of indicators 4-3 and 4-4 shows that the recognition level of applicants was increased, it cannot be said that the recognition level of companies was increased as the indicator 4-2 shows the reduction of the sponsors and scholarships. Since increased recognition by companies as well as support for the trainees were considered to be indispensable for the sustainable management of the UP ITTC (UP ITDC) as a training centre/institute, the achievement level of Output 4 is considered to be medium degree.

Indicator 4-1: related documents are prepared as planed and the briefings are held.

According to the Terminal Evaluation Report and interviews with C/Ps, brochure, website and other advertisements (booklets, newspaper ad and guidebook for scholarship etc.) were prepared and used for advertisement. Also, UP ITTC set up its own booth at

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[22] One of the documents provided by JICA indicated that ICWG was unified to a presentation session of the graduates. However, the main objective of the presentation was to gain recruitment from IT companies; as such, it could not function as a substitute for the ICWG meetings. Additionally, some C/Ps mentioned that the ICWG meetings had been abolished because they became less necessary. However, interviews with IT companies showed there was a request for providing follow-ups on scholarship programmes. Therefore, ICWG should have been necessary.

various conferences and exhibitions[23] and advertised UP ITTC extensively. In addition, for those companies which showed their interests in the scholarship programmes, UP ITTC conducted individual briefing about the programme. Thus, this indicator is considered to be achieved.

Indicator 4-2: number of prospected students and support for training increase every year.

As mentioned in indicator 3-1, the number of the sponsors and scholarships started to decline year by year since 2007. On the other hand, according to the interviews with C/Ps, a presentation of the trainees' projects (such as mobile applications) was conducted and many IT companies attended this presentation for the purpose of recruiting the graduates. Although this indicator is not achieved in terms of attainment of the scholarships, the other support like mentioned above was confirmed. Thus, the achievement level of this indicator is considered to be medium degree.

Indicator 4-3: recognition and interest in the project/ITTC are increased each year.

As shown in Table 5, the number of applicants for full-time course, participants in the short-term courses and participants in Y4IT increased during the project period. Therefore, this indicator is considered to have been achieved.

Table 5: Number of applicants for full-time course, participants of short-term courses and participants in Y4IT.

(Unit : persons)

Year	2005	2006	2007	2008
Applicants for full-time course	181	342	355	422
Participants in short-term course	71	435	771	889
Participants in Y4IT	7,500	12,500	16,000	18,000

Source: UP ITTC Final Report.

Indicator 4-4: applicant numbers become larger than available capacity (100).

As shown in Table 5, applicants for full-time course numbered 181 (Year 2005), 342 (2006), 355 (2007) and 422 (2008), which exceeded the indicator of 100 per year. Therefore, this indicator is considered to have been achieved.

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[23] For example, PSITE (Philippines Society of Information Technology Educators).

3.2.1.2 Achievement of Project Purpose

Project purpose: to provide university/college IT course graduates and IT engineers with the appropriate IT training courses for enhancing their skills and knowledge in order to meet the needs of the IT industry in the Philippines.

1) Indicator 1: stable operation of the Project/ITTC with budget securement.

According to the interviews with C/Ps, management of the project/UP ITTC was stable and with appropriate budget execution during the project period. Thus, this indicator is considered to have been achieved.

2) Indicator 2: four ITTC full-time instructors and more than 30 part-time instructors are secured and will have the capacity for planning, developing and implementing training.

At the time of project completion, 10 full-time course instructors and 77 part-time instructors[24] had been secured. Additionally, it was confirmed that these instructors participated in CWG meetings and contributed to the planning, development and implementation of the training for both courses. Thus, this indicator is considered to have been achieved.

3) Indicator 3: more than 80% of UP ITTC graduates in full-time course to secure an IT-related position in the IT industry.

As show in Table 4, the employment rate for graduates was 79% every year from 2005 to 2008 according to the documents provided by UP ITTC. This indicates that the target rate of 80% had almost been achieved.

4) Indicator 4: more than 80% of participants and companies accept graduates and attach high value to the project/ITTC.

According to the interviews conducted with graduates, almost 80% answered that the training content had been useful to their current work. Furthermore, the results of the 'IT human resources needs survey' in 2008[25] revealed that more than 50% of companies that hired UP ITTC graduates evaluated the skills of these graduates at a higher level than those of graduates from other schools. In addition, the survey showed that 54 out of 66 companies (82%) were interested in employing UP ITTC graduates. Moreover, interviews with other stakeholders, in addition to a beneficiary survey, showed that the UP name, as well as the values and support provided by Japanese and/or other IT companies contributed significantly to the achievement of this indicator. Thus, this indicator is considered to have almost been achieved.

As it has been confirmed that all indicators had been achieved at the time of project completion, the project purpose is considered to have been achieved.

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[24] Source: Part-time instructor list submitted by C/Ps at the time of ex-post evaluation.
[25] 'JICA UP ITTC IT Human Resources Needs Survey' (2008) conducted by Spiceworx.

3.2.2 Impact

3.2.2.1 Achievement of Overall Goal

Overall goal: skilled IT engineers with the potential to be core IT staff in the relevant business sector will be continuously supplied through the activities of UP ITTC.

1) Indicator 1: 400 graduates of full-time course are produced from UP ITTC and available for IT employment every year.

Table 1 shows the number of graduates during the project period, with Table 6 indicating the number of graduates from the project's completion up to the ex-post evaluation survey. As shown in these tables, 400 graduates were not produced every year, which had been the target number.

UP ITTC moved to the former National Scientific and Mathematic Educational Institute in the University of the Philippines Diliman (Vital A. Tan Hall) in March 2009[26]. However, the capacity of the new training facility is 150 maximum and does not have the capacity for producing 400 graduates every year. One of the reasons for not being able to prepare the training facility to produce 400 graduates each year – which was raised one of the issues to be addressed at the time of the terminal evaluation – was that the budget for new training facilities had not been secured following the project's completion. Another reason was that UP ITDC (formerly UP ITTC) had been so busy developing projects that their original role as a training institute had become less important.

Table 6: Number of full-time graduates following the project's completion.

(Unit: persons)

Year	2009	2010	2011	2012	2013
Number of graduates	56	83	74	58	55

Source: Answered questionnaire.

Additionally, as shown in Table 7, the number of scholarships has been decreasing each year following the project's completion and since 2010 no longer exists. Furthermore, no additional sponsor companies have been identified since 2011. The 60 scholarships in 2013 were provided by ICTO[27], with financial resources being supplied by the Philippine Government. Additionally, these scholarships were experimental and it remains under discussion whether they should be continuously provided.

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[26] The capacity of the previous building was 100 trainees per year.

[27] Information and Communications Technology Office. One of the offices of the Department of Science and Technology (DOST)

Table 7: Number of scholarships and sponsored companies after the project's completion.

Year	2009	2010	2011	2012	2013
Scholarships	12	0	0	0	60
Sponsor companies	5	3	0	0	0

Source: Answered questionnaire.

Following the project's completion, CWG meetings have been held continuously[28]; therefore, partnership with IT industries in terms of curriculum revision has been achieved. On the other hand, since an ICWG meeting has not been held since 2007, active partnership with IT industries other than in the field of curriculum revision has not been conducted. According to the interviews conducted with C/Ps, the 'Business Development and Marketing Group' was formulated in 2011 and new actions for marketing have been initiated. However, as the team consists of only internal staff of UP ITDC (former UP ITTC), there remains an issue as it relates to a reflection of opinions and the needs of the IT industry. Furthermore, at the time of the ex-post evaluation survey, UP ITDC was unable to gain a complete picture of IT companies' satisfaction concerning the scholarships that they had provided in the past, as well as the current needs and trends within the IT industry. According to the interviews conducted with graduates, UP ITDC staff and current trainees, it was confirmed that expensive tuition fees were sometimes an obstacle for applicants to enter UP ITDC or for trainees to continue their studies. This issue has led to some graduates abandoning their degrees. In order to produce more graduates, the most important issue is strengthening partnerships with the IT industry.

In addition, as shown in Table 8, the number of full-time course applicants following the project's completion has decreased since 2010. Therefore, more effective marketing (attainment of scholarships and differentiation from other IT training institutions, etc.), as well as securing scholarships are considered to be of significant importance.

Table 8: Number of full-time course applicants following the project's completion.

(Unit: persons)

Year	2009	2010	2011	2012	2013
Number of applicants	500	322	255	121	94

Source: Answered questionnaire.

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[28] See '3.4.2. Institutional aspect of the Implementing Agency' for details.

2) Indicator 2: graduates from the full-time course are recruited and employed as core IT engineers in IT industries.

The total number of full-time course graduates until the ex-post evaluation was 547 (see Tables 1 and 6). Interviews conducted with C/Ps, graduates and IT companies showed that most of these graduates worked as core IT engineers outside and inside the Philippines (see Tables 5 and 9 for employment rates of full-time course graduates in IT-related companies). Furthermore, according to the results of the beneficiary survey, around 86% of graduates answered that they were employed in an IT-related field and around 74% answered that the full-time course had been useful in obtaining IT-related jobs. Thus, this indicator is considered to have almost been achieved.

Table 9: Employment rate of full-time course graduates following the project's completion.

(Unit: persons)

Year	2009	2010	2011	2012	2013
Employment rates for IT companies	79%	79%	79%	79%	79%

Source: Answered questionnaire.

Although the project has achieved its overall goal as defined by target indicator 2, it has not achieved the goal set by target indicator 1, due to a lack of training facilities needed for producing 400 graduates per year. The qualitative impact on the IT industry was relatively large; however, there still remains an issue in terms of the quantitative impact. Therefore, the overall goal has not been achieved.

3.2.2.2 Challenges for continuously maintaining the project's effects

Considering the above mentioned situation regarding achievement of overall goal, there are three challenges that need to be addressed in order to maintain the project's effects and enhance its impacts.

1) Strengthening of marketing and partnerships with the IT industry

As stated above, partnerships between UP ITDC and the IT industry has become weaker after the project completion. 11 IT companies out of 11 interviewed (100%) showed a positive interest in collaborating with UP ITDC (such as scholarship programmes or the provision of OJT[29]). Additionally, 10 out of 11 companies (almost

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[29] On the Job Training

90％) were satisfied with the skills of UP ITDC graduates and commented that they were willing to employ UP ITDC graduates. One company that was not satisfied with UP ITDC graduates commented that they would consider employment positively, depending on the marketing and skills quality of graduates as provided by UP ITDC. Furthermore, interviews with the Japan External Trade Organization (JETRO), ICTO and PhilNITS showed that the demand for IT human resources has been increasing yearly. There is therefore a high possibility for the UP ITDC to produce more effective candidates by conducting active market research and marketing. Currently, there is a number of IT training institutes in the Philippines. Therefore, it is necessary for the UP ITDC to differentiate itself from other training institutes and establish an organizational direction. In order to do this, it is of great importance that UP ITDC grasp the needs of IT industries and seek out effective collaboration with the IT industry. Therefore, the highest priority at this stage for the UP ITDC is to create a network with IT companies, including past sponsor companies and those companies where UP ITDC graduates are employed, and to set up a system for understanding the needs of the IT industry. Furthermore, it was found that some of the UP ITDC graduates were currently working as core IT engineers in other parts of the world. These graduates can attest to the high abilities of UP ITDC graduates, which can be a valuable marketing tool. It is therefore important that the marketing team conduct a follow-up survey of graduates to derive information about where they are employed, as well as their current situation as a whole. It is also necessary to make the strengths of UP ITDC clear in terms of its current curriculum and course characteristics.

2) Medium to long-term organizational plan

According to the UP Vice President for Development, UP ITDC aims to strengthen its role as a training institute and to expand its number of trainees. The challenges that UP ITDC currently faces are: 1) the leader of UP ITDC also serves as the leader of other organizations, which highlights a lack of steady leadership in UP ITDC[30]; 2) since its current facility is temporary, it is necessary for UP ITDC to build and move to a new facility in order to expand the institution's training functions on a full scale. UP Vice President for Development has realized these challenges and taken concrete actions to address them, including 1) the appointment of a new leader for UP ITDC; and 2) the preparation of new facilities[31] to attain the institution's goals. With regard to the first action, the necessary documents have been submitted and these are currently in the process of being reviewed. Regarding the second action, it has been confirmed from the interview conducted with UP Vice President for Development that the budget for the new

[30] See '3.4.2. Institutional aspects of the Implementing Agency' for details.
[31] This facility will not be for UP ITDC only, but for other UP Development Offices, too. The construction of this facility will be under the responsibility of the UP Vice President for Development.

facilities had been secured at the time of ex-post evaluation. Therefore, it is desirable that UP ITDC draw up a medium and long-term plan concerning target enrolments, the types of training they will be providing and the number of graduates they want to produce, which can be done by building partnerships with the IT industry and understanding the needs within the industry. Moreover, following the appointment of a new leader, implementation of the planned activities under strong leadership will be critical, with all staff sharing a common organizational goal.

3) Flexible response to a variety of needs

Once the expansion of the number of trainees has been achieved, it is advisable that UP ITDC respond flexibly to a variety of needs. The following are expected countermeasures to be taken in the future.

3-1) Consideration of setting courses based on trainees' abilities

According to the interviews with C/Ps, UP ITDC shortened the duration of its full-time course from one year to six months (three months for the IT core course and three more months for specialization) in June 2012 in order to reduce the financial burden on trainees and meet their requirements to be employed as soon as possible. This has meant that trainees learn their IT skills within a shorter period of time, as well as at a lower cost. However, according to the beneficiary survey (graduates), some complaints were highlighted, for example, that the pacing of classes was too hurried and that students should be considered in terms of their varying and individual skills. In addition, some IT companies that employed UP ITDC graduates mentioned that six months training was not enough for trainees to acquire practical IT skills and UP ITDC should return to the one-year course. As mentioned above, at the start of this project, university graduates from the Engineering Department and IT technicians were expected to be enrolees. In reality, however, students who graduated from non-engineering departments were also allowed to enrol if they were able to pass the entrance exam[32]. C/Ps commented that those individuals who achieved high scores on the aptitude test and who expressed a strong willingness to learn IT skills tended to graduate with higher performance, regardless of their IT-related knowledge. As a result, the institution made the decision not to narrow down their targeted enrolees, especially in terms of those who already had IT-related knowledge. According to the interviews conducted with graduates, some mentioned that trainees who did not have basic IT knowledge had difficulty understanding and acquiring the content of the lessons. To cope with this problem, UP ITDC tried setting different

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[32] The entrance exam of UP ITDC（former UP ITTC）consists of 1) aptitude test (Mathematics, English and Logic); and 2) interview. An exam evaluating IT-related skills has not been conducted since the start of the project.

classes based on trainees' abilities. However, this attempt was discontinued, because they could not secure a sufficient number of students[33] for these classes.   Thus, once the number of trainees expanded, setting different courses based on the trainees' needs and abilities (e.g., setting both one-year and six-months courses, with different classes based on students' abilities) is advisable. Companies that have acted as sponsors in the past also requested that separating classes based on the students' levels of knowledge should be considered.

3-2) Consideration of a Japanese language class

Although a Japanese language class had been compulsory during the project period, it has become optional since 2010[34]. According to the interviews conducted with graduates, the Japanese language class was one of the strengths of UP ITTC; however, learning both 'Japanese language' as well as 'IT skills' at the same time was hard for trainees who did not have basic IT knowledge. In fact, it was commented that there had been many drop-outs from the Japanese language class. On the other hand, the results of the beneficiary survey showed that the Japanese language class had been useful. This indicates that UP ITDC should also consider separating classes based on the trainees' needs and their Japanese language skills.

3-3) Provision of On the Job Training (OJT)

Many requests were raised from the interviews with graduates and current trainees to provide opportunities for applying acquired knowledge to real work as part of the course work. Additionally, the results of the beneficiary survey (graduates) showed that graduates expected UP ITDC to strengthen its partnerships with IT industries. According to the interviews conducted with IT companies, 11 out of 11 companies showed a positive attitude about accepting the OJT of UP ITDC trainees. Therefore, it would be desirable to provide the OJT in IT-related companies as a part of industry collaboration. OJT programmes can be a merit not only for trainees in terms of applying their acquired skills and knowledge within the real world, but also for the companies in terms of minimizing the process of recruiting new staff, in case they find a potential trainee who performs well through OJT. OJT should be considered as a different type of 'industrial collaboration' as 'industrial collaboration' should not be limited to a 'scholarship programme'.

3.2.2.3 Other Impacts

The number of participants in short-term courses was 2,166 during the project period and reached 7,096 at the time of ex-post evaluation. In addition, UP ITTC has implemented a number of consulting services and development projects with IT

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[33] Class separation was implemented based on the trainees' performance in the aptitude tests conducted as part of the entrance exam. However, the number of enrolees was too small to continue the separation.
[34] Source: Interview with C/Ps.

companies and government agencies. In light of this, the implementation of short-term courses and IT development projects has impacted significantly on IT industries.

As this project has to some extent achieved its intended outcomes, project purpose, and overall goal, the effectiveness/impact of the project has been deemed as fair. While the project purpose was achieved, the achievement level of the overall goal was realized only at the medium-level, as the number of students did not reach the target set by indicator 1, while the goal set by indicator 2 had been largely achieved.

| A provided PC | Provided servers |

3.3 Efficiency (Rating: ②)

3.3.1 Inputs

Inputs	Plan	Actual (at the time of project completion)
(1) Experts	Four for Long-Term maximum 50M/M for Short-Term	8 for Long-Term; 23 for Short-Term (59.65M/M)
(2)Trainees received	A few trainees every year for the first three years.	13 in total
(3) Equipment	Equipment for the development of training; equipment for training (25 persons ×4 classrooms), etc.	PC, servers, equipment for network systems, etc.
Total Project Cost	680 million yen	582 million yen
Total Local Cost	63 million yen	63 million yen

Source: Documents provided by JICA and answered questionnaire.

3.3.1.1 Elements of Inputs

According to the interviews conducted with C/Ps, it was confirmed that necessary and sufficient equipment be provided in an effective manner. It was also confirmed from the interviews that the technical transfer of Japanese experts be successfully executed and that C/Ps utilize the acquired knowledge and skills at the time of ex-post evaluation. On the other hand, it was reported that some short-term experts had difficulty communicating with C/Ps due to the language barrier and they mentioned the importance of preparing translated manuals, guidelines and related documents for solving this problem. Furthermore, with regard to the training C/Ps received in Japan, they commented that most of this training comprised only a general overview of IT and that it would be much more effective if the number of sessions can be reduced and more focus be placed on IT specializations.

3.3.1.2 Project Cost

The project costs were lower than planned (86% of the planned cost).

3.3.1.3 Period of Cooperation

Since the project period was extended one year, the duration of the project was longer than initially planned (125% compared to the original plan). The extension of the project period was implemented to avoid the confusion created by moving to another building and to solve the issues concerning collaboration with IT industries and curriculum revision, which were raised at the time of the terminal evaluation. These concerns were solved by extending the project period and C/Ps commented that one year extension was appropriate. With regard to UP ITDC moving its facilities, this process had been conducted systematically since December 2008 and was completed in March 2009. These procedures were conducted smoothly and without any confusion.

Although the project cost was within the planned budget (86% of the original plan), the project period exceeded the plan (125% of the original plan). Therefore, efficiency of the project was rated as having been fair.

3.4 Sustainability (Rating:②)

3.4.1 Related Policy towards the Project

The Philippine Government has highlighted IT human resource development as one of the country's priorities in the current national development policy, 'Philippine National Development Plan 2011-2016'. In 2011, the 'Philippine Digital Strategy[35]' was also

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[35] This was drawn up by the Commission for Information and Communications Technology (CICT) in 2011.

created as an IT master plan, along with the current national plan. In this policy, four top priority issues were raised for enhancing the expansion of IT/BPO industries. One of these issues was 'IT human resource development'.

As for the institutional aspect, UP ITTC became the first IT training institute certified ISO9001 in the Philippines in August 2009, which has improved its recognition level as a training institute. Although it was suggested that full-time course (without a degree) would be changed to a Masters' course or a course that would provide an optional degree following the project's completion, this was not achieved, as the University of the Philippines did not approve this. However, certificates are given to trainees who complete the UP ITDC (former UP ITTC) full-time course. At the present stage, the certificate is considered to have sufficient market value, partly due to the UP brand name.

In addition, at the time of the ex-post evaluation survey, organizational reinforcement of UP ITDC as a training institute (appointment of a new leader and relocation of the facilities to a new place which has better capacity) had been declared by UP Vice President for Development and concrete actions have been taken towards achieving this goal. Therefore, the sustainability of political aspects was considered not to be an influential factor.

3.4.2 Institutional Aspects of the Implementing Agency
1) Transformation of organizations following the project's completion
Following the project's completion, UP ITTC was supposed to be included in the 'National Engineering Centre (NEC)', under the direction of the UP Engineering Department. However, this plan was changed and UP ITTC instead came under the direction of the Office of the Vice President for Development of UP.

Additionally, following the project's completion, the UP System Information Technology Foundation (UP SITF), which had been part of UP ITTC, became independent. While the role of UP ITTC had been the management of full-time course and the implementation of governmental development projects, that of UP SITF had been to manage short-term courses, to conduct events such as Y4IT and to develop IT software. UP SITF had also been providing financial supporting to UP ITTC.

UP ITTC had been engaged in the management of the full-time course, IT development projects from government agencies and companies, as well as the 'eUP Project[36]7, which aims to build and develop information and communication technology within the UP system. As stated above, UP ITTC changed its name to UP ITDC with the expansion of its

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CICT is a new organization, created as a substitute for ITECC, which aims to promote ICT national policies.
[36] The 'eUP Project', which was launched in 2012, is a project for unifying the ICT systems in all the universities under the UP system and to establish a basic structure for these systems. The project aims to improve efficiency in terms of services, research and guidance of students.

activities.[37] However, since UP ITDC had been busy with activities other than training, its role as a training institute has decreased. Considering these circumstances, the UP system demonstrated the policy for separating the 'eUP Project' and 'UP ITDC' since September 2013. Therefore, at the time of ex-post evaluation, three organizations, 'eUP Project', 'UP ITDC' and 'UP SITF' co-existed within the same building (see Table 10). It was found that command structure and the locus of responsibility was unclear within UP ITDC, for example, an overlapping of staff among these 3 organizations and a lack of a responsible individual for the marketing of UP ITDC and its collaboration with IT industries. In addition, the current leader of UP ITDC serves as a leader of the 'eUP Project', with more focus being placed on the 'eUP Project'. Having realized this situation, UP Vice President for Development demonstrated a policy for appointing a new leader for UP ITDC and promoting official procedures toward achieving this aim. Furthermore, it was announced that the 'eUP Project' will be a separate entity and will no longer be under the direction of UP Vice President for Development in the near future (April, 2014)[38]. Therefore, it is expected that the role division within the organization will become clearer once the appointment of a new leader and organizational change proceeds. Reinforcement of UP ITDC leadership is a key for the future management of UP ITDC.

Table 10: Role division of related organizations

Organization	Role
UP ITDC	Management of full-time course and implementation of development projects with government agencies and companies.
UP SITF	Management of short-term courses, organizing events such as Y4IT, development of IT software, etc. Financial support of UP ITDC.
eUP	Development and establishment of ICT systems within the UP system.

Source: Interviews with C/Ps

2) Industry Collaboration

From the completion of the project up to the time of ex-post evaluation (2009-2013), CWG meetings were held every six months for a total of seven times in conjunction with participants from within the IT industry. Therefore, industry collaboration in terms of

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[37] The organization's name was changed because its purpose was shifted to being a 'Training and Development Centre' from simply being a 'Training Centre' （Interview with C/Ps and website: http://ittc.up.edu.ph/index.php/about-us/#sthash.LQc58MXV.dpuf）

[38] Source: interview with UP Vice President for Development.

curriculum has not posed any problems thus far. On the other hand, with regard to the implementation of marketing towards Japanese IT companies following the project's completion, which was one of the concerns raised at the terminal evaluation, the handover from a Japanese expert to UP ITDC staff who was responsible for industrial collaboration was conducted and this staff had engaged in the industry collaboration individually after the project completion. However, no-one has been allocated to take his place since the personnel resigned in 2012. As stated above, the number of scholarships has decreased and no additional companies (limited not only to Japanese companies) were offering scholarships at the time of ex-post evaluation. Currently, the initiatives are being undertaken to solicit scholarships from local government units (LGUs) and the efforts of securing TESDA[39] scholarships have been made. Also, efforts of activating industry collaboration have been confirmed as the 'Business Development and Marketing Group' was created in 2011. However, this team consists of internal staff of UP ITDC (former UP ITTC); there remain concerns in terms of accurately reflecting industry needs and opinions. Since industry collaboration is essential for sustaining the effects of this project, it is suggested that UP ITDC take strong measures to address this, such as allocating staff that specialize in this field (to contact past sponsor companies and graduates, etc.).

3) Management and Administrative System of UP ITDC

From the project's completion up to 2011, an advisory board meeting was held once a year in which management policies were discussed among the stakeholders. Since 2011, the advisory board meeting changed its name to the 'management committee', which meets once a month. Participants are invited to these meetings from within IT industries on a necessary basis.

With regard to the management of the full-time course, this has been conducted smoothly following the project's completion and UP ITDC managed to expand its variety of specialization courses. Therefore, the course management capacity of UP ITDC can be evaluated as having a high level of quality. Regarding the resignation of staff, sufficient handover (such as sharing necessary information, textbooks and guidelines) has been conducted. Furthermore, the development of newly recruited instructors has been conducted smoothly by distributing 'trainer kits' that provide training for new instructors and provides them with the opportunity to observe experienced instructors. Concurrently, the sustainability of institutional aspects does not appear to be a problem.

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[39] Technical Education and Skills Development Authority

3.4.3 Technical Aspects of the Implementing Agency

UP ITDC has added short-term courses, as well as specialization subjects to the full-time course following the project's completion[40]. C/Ps commented that the biggest reason why the institution had managed to create these courses was that their IT-related capacity and knowledge had been improved by the technical transfer implemented during the project period. This highlights technical knowledge transfer as a result of the project to have had a significant impact in terms of improving C/Ps' IT related skills. Additionally, UP ITDC instructors have been making an effort to improve their individual capacities for teaching through attending various training (including UP ITDC short-term courses), purchasing related books, information gathering through the Internet and by studying at graduate school level in order to secure updated information sources, which can be substituted for Japanese experts. UP ITDC has established its supporting system in order to improve its instructors' technical skills, for example, through financial support for purchasing the necessary texts, exemption of short-term course tuition fees and financial support for payment of half of the tuition fees for graduate school.[41] In addition, in order to improve the technical skills of instructors, evaluation within the organization (instructors evaluate one another by observing their lessons, etc.) is also taking place. Considering the above, sustainability in terms of technical aspects showed no problems at the time of ex-post evaluation.

3.4.4 Financial Aspects of the Implementing Agency

It was confirmed that budget resources for the management of UP ITDC had been obtained from the tuition fees of the full-time course, application development projects and IT consulting services at the time of the ex-post evaluation survey. Additionally, UP SITF supports UP ITDC financially by raising money from events such as Y4IT, the implementation of development projects with IT companies and the management of short-term courses. UP SITF secured a budget for the maintenance and renewal of necessary UP ITDC equipment, as well as a loan for UP ITDC staff. Revenue in 2012 was approximately 42 million Philippine peso and spending roughly 39 million peso, raising around 3 million peso profit. The profit was saved to utilize for investment in development projects and the expansion of future activities. Therefore, sustainability in terms of financial aspects is considered to be fair.

Some issues have been observed in terms of the institutional aspects of the

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[40] At the time of ex-post evaluation, three more specialization courses ('Enterprise Resource Planning', 'Game Design Development' and 'Mobile Application Development') had been newly created in addition to the three courses that were being provided at the time of the project's completion ('Application Development', 'Embedded Systems' and 'Network Systems').

[41] Source: Interview with C/Ps.

implementing agency, such as an unclear division of roles between the implementing agency and other concerned organization, as well as weaker collaboration with the IT industry in terms of scholarships. Therefore, the sustainability of the project's effects has been rated as fair.

4. Conclusion, Lessons Learned and Recommendations

4.1 Conclusion

In order for UP ITTC to implement IT training efficiently for university graduates and IT engineers in a manner that will meet the needs of the IT industry, assistance for the development and implementation of the training courses, as well as industry collaboration, was conducted through this project. The purpose of this project was consistent with the development policies and needs of the Philippines, as well as Japanese aid policies. Thus the relevance of the project is high. Although the project purpose was achieved, the overall goal of 400 graduates per year was not achieved, due to the insufficient capacity of the facilities, a shift in focus away from the training centre to the development centre and a reduced number of scholarships. As a result, the effectiveness/impact of the project is considered to be fair.

Though the project costs fell within the proposed budget (86% of the overall outlay), the project period exceeded the project plan (125% of the original plan). Therefore, the efficiency of the project is considered fair. Regarding sustainability, no major problems were found in terms of the policy background, technical or financial aspects of the implementing agency. Some problems were observed in terms of institutional aspects, such as unclear divisions between the roles of the implementing agency and other concerned organizations, as well as weak collaboration with the IT industry in terms of scholarships. Therefore, the sustainability of the project were considered to be fair.

In light of the above, this project was evaluated as being partially satisfactory.

4.2 Recommendations

4.2.1   Recommendations to the Implementing Agency

1) Strengthening of partnerships with IT industries and marketing

At the time of the ex-post evaluation, UP ITDC did not grasp very well about the satisfaction of the past scholarship programmes, nor did it exhibit a clear understanding of the current needs of the IT industry. On the other hand, 100% of the companies interviewed answered that they were willing to collaborate with UP ITDC (for example, by providing scholarships and OJT). Therefore, it is a top priority for UP ITDC to build a system that will enable it to better understand the industry's needs and to do so by networking with IT companies, including the past sponsor companies, as well as

companies that currently employ UP ITDC graduates. Furthermore, it is of great importance for UP ITDC to conduct a follow-up survey among graduates to collect information about their work environments and activities in order to observe the outcomes of the training the institution provides, as well as to expand their networks within the IT industry. In addition, for the expansion of the number of enrolees, establishing the strengths of UP ITDC in terms of its current curriculum and the characteristics of its courses is paramount.

2) Medium to long-term organizational plan

According to the UP Vice President for Development, UP ITDC aims to strengthen its role as a training institute and therefore to expand its number of trainees. In order to attain this goal, concrete actions have been taken, such as the appointment of new leader of UP ITDC and moving the institute to new facilities. In the future, it is desirable for UP ITDC to make sure the above-mentioned plans are implemented and to set a medium to long-term organizational plan by building the network with IT industry and grasping its needs.

3) Flexible response to a variety of needs

Once the expansion of the number of trainees has been achieved, it is advisable that UP ITDC respond flexibly to a variety of needs. The following are suggested countermeasures to be taken in the future.

1. Consideration of setting courses based on trainees' abilities

Once the number of trainees in UP ITDC has been expanded, setting different courses based on the trainees' needs and abilities (e.g., setting both one-year and six-months courses or to setting classes with different contents based on their abilities) is advisable.

2. Consideration for re-instating the Japanese language class

According to the interviews conducted with graduates, learning both Japanese and IT skills posed difficulties for trainees who did not already have basic IT knowledge. Trainees commented that many students dropped out of the Japanese language class. Nonetheless, the Japanese language class was rated as one of the strengths of UP ITTC. It is therefore suggested that UP ITDC also considers separating classes based on the trainees' needs and their Japanese language skills.

3. Provision of OJT

Considering the requests of graduates, current trainees and IT companies, it is desirable to provide OJT in IT-related companies for a certain period of time as part of industry collaboration. OJT programmes can be a merit not only for trainees in terms of applying their acquired skills and knowledge in the real world, but also for the companies in terms

of minimizing the process of recruiting new staff in case they find a potential trainee who performs well through OJT. Additionally, OJT should be considered as a different type of 'industrial collaboration' as 'industrial collaboration' should not be limited to a 'scholarship programme'.

4.2.2 Recommendation to JICA

   None.

4.3 Lessons Learned

   1) Importance of sharing organizational goals among stakeholders

   One of the factors that regularly hindered the attainment of the overall goal of this project was that the original organizational goal of being a 'training institute' gradually became weaker with the expansion of development projects. In order to sustain the effects of the project, it is desirable to implement its activities within the context of its original goal. However, since the needs and conditions of the industry and the market are likely to change, it is not always recommended that an organization continues to pursue its original goal. Therefore, it might be a good measure to review and revise the organization's goal according to the market needs on a necessary basis. It is also of great importance for the organization's staff to share the common goal and direction of the organization, and to do so under strong leadership. UP ITDC stated that this ex-post evaluation survey provided them with a good opportunity to review the institution's organizational goal. Therefore, in this and other similar projects, it is essential to regularly review organizational activities and to share the direction that the institution wishes to pursue among all staff members.

   2) Continuous implementation of the customer satisfaction survey and building a contact system

   In this ex-post evaluation survey, the beneficiary survey for graduates and IT companies had been particularly difficult to conduct. The biggest reason for this was that UP ITDC has little contact with graduates and IT companies. In order to measure the effects of the institution's training and the project, it is of great importance to create networks with graduates and IT companies. This contact system will also facilitate marketing and networking with IT industries.