

The income-generating projects of a government academic institution in The Philippines

The case of the University of Eastern Philippines

Income-
generating
projects

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Abstract

Purpose – This study aims to determine the extent of implementation of income-generating projects (IGPs) of the University of Eastern Philippines (UEP).

Design/methodology/approach – It uses a descriptive-correlational research design, involving 126 respondents, composed of 5 members of IGP Board of management, 11 managers and 110 clients. Frequency counts, percentages, ratios, weighted means and multiple regression analysis are used to treat and analyze the data gathered. The assessment of the extent of implementation of IGPs results in a high extent of implementation, indicating that the emergence and development of IGPs significantly improved the income-generating capacity of UEP.

Findings – The test of the relationship between the extent of implementation and the profile of the IGPs in terms of length of operations prove that they are not significantly related, indicating that the length of operations has no direct influence on the implementation of the IGPs, and the extent of how IGPs are implemented does not largely depend on the number of staff the IGPs have. However, the average number of clients served is significantly related to the extent of implementation of IGPs.

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Originality/value – In determining whether a relationship existed between the extent of implementation of IGP and the profile of the staff, the results prove that except for the age of the staff, the educational attainment and the number of trainings and seminars attended are found to have a significant relationship.

Keywords Income-generating projects, Academic institution, Extent of implementation

Paper type Research paper

1. Background of the Study

The decline in budget for state universities and colleges and the increasing enrollment trend in almost all colleges, including both the laboratory elementary and secondary schools, pose a seemingly bleak scenario for the University of Eastern Philippines (UEP), which has a limited annual budget, which more often than not, could not meet the needs of its clientele being served – almost 10,000 students every semester. Republic Act 8292, also known as the Higher Education Modernization Act of 1997, is an act providing for the uniform composition and powers of the governing boards, the manner of appointment and term of office of the presidents of state universities and colleges, etc.

Toward the end, reforms have been made and policies and measures have been formulated, which brought new opportunities and social changes in the country. State Universities and Colleges (SUCs) are created by act of legislations and supported by annual government appropriations. They are autonomous institutions in their operations. Likewise, they are independent in terms of developing their academic programs.

The board of regents (BOR) serves as the SUC governing board. It is created to:

- achieve a more coordinated and integrated system of higher education;
- render them more effective in the formulation and implementation of policies on higher education;
- provide for more relevant direction in their governance; and
- ensure the enjoyment of academic freedom as guaranteed by the Constitution (CHED, 1997).

SUCs are under the direct supervision of the Commission on Higher Education (CHED) mandated to set and enforce minimum standards for academic programs. The commissioner serves as the chairman of the governing boards of all SUCs and is responsible for the congressional approval of the SUC annual budget. As years go by, curricular offerings/programs of SUCs increase; thus, the need for additional manpower, logistics, government costs and the like is inevitable. The government could not fully subsidize all the needs of SUCs, hence the need to do its share to strengthen fiscal capability. The government encourages state-owned tertiary-level institutions to venture into business to generate more income to somehow augment the declining resources of the government.

The emergence of income-generating projects (IGPs) in UEP has been conceived as an immediate response to the urgent call of the government to devise and implement resource mobilization and generation schemes that will augment the university's resources and fill in the budget gap for any relevant expenditure items that the university may incur. Hence, the enactment of Republic Act 8292, otherwise known as the Higher Education Modernization Act of 1997, which specifically provides that:

State Universities and Colleges are encouraged to venture into income-generating projects to enhance limited resources and later be self-sufficient and autonomous. SUCS need to strengthen their fiscal capability as a consequence of the government budgetary cuts for public education. The increase in income generation is expected to offset the yearly decrease in budget for Maintenance and Other Operating Expenses (MOOE) and zero allocation for Capital Outlays (CO).

Cognizant to this Republic Act, the UEP, being one of the Higher Education Institutions in Eastern Visayas, has committed to venture into IGPs. The university wants to optimize and promote the use of its unutilized resources to support and enhance its primary function of serving quality education to its students.

Moreover, the Long-Term Higher Education Development Plan of the CHED, which covers the period from 2001 to 2010, seeks to empower the SUCs by establishing active IGPs, thereby promoting profitable management of their economic resources such as the optimal productive use of idle lands, existing facilities and other technical equipment.

1.1 Objectives of the study

The study aims to determine the extent of implementation of the IGPs of UEP. Specifically, it describes the profile of the IGPs of UEP in terms of their length of operations, number of staff and the average number of clients served; determines their extent of implementation relative to their length of operations; examines the profile of the IGP staff in terms of age, educational attainment, number of trainings and seminars attended; and determines whether a significant relationship existed between the profile of the IGP and the extent of implementation of the IGPs of UEP.

2. Literature review

The many years the IGP has existed and in operation in the University has greatly helped create employment and improved its income-generating capacity. It also gives bigger income to everyone in the organization by way of bigger incentives, thereby helping improve their economic conditions. The additional income could somehow ease the burden of the SUC for its multifarious expenditures to carry out its programs or functions. The income that will be generated will be of great importance to the agency to help augment the meager resources the SUC has.

The IGP, just like any organization, needs staff or workers so that it can carry out its purpose and go on with its operation. Labor, as a factor of production, is the nation's wealth and is considered as the most important of all the factors of production (Parkin, 1993). This means that no matter how big the capital is, how many technical know-hows there are to be imparted, how vast the land is, if there is no human resource that would facilitate the movement of all other factors of production, it is useless. The Philippines is lucky enough that it has a lot of human resources, but at times, they are not being fully utilized. Most professionals prefer to work outside the country for greener pasture. The Philippines sometimes experiences the so called "brain-drain". Most of the professionals opt to work overseas for bigger take-home pay and a brighter future of their family. Encouraging people to venture into IGPs will mean bigger pay for the workers in terms of additional income.

The demand for resources for the higher education sector is expected to increase in a fast-growing knowledge- and technology-based economy. To remedy this situation, the government is encouraging the institutions to look beyond funding to support their

operations. The CHED on January 15, 1999, called for research proposals among SUCs for Fiscal Year 1999 geared toward the improvement of the quality of life of the Filipinos, with sub-topic “Enhancing the Income-Generating Capability of the Filipinos through Non-Traditional and Innovative Means”, focusing on the promotion of income generation in different government agencies, including SUCs. With this challenge, the SUCs are now faced with the responsibility of generating funds for continuous, effective and efficient operations for institutional development.

The need for resource generation is brought about by the following trends (Florendo, 2005):

- All institutions are experiencing rising costs of operations primarily because of inflation.
- The increase in appropriation is in personal services and not in operating and other services.
- There are new technologies available that should be brought into the classroom, i.e. computers, video equipment, etc.
- Demand for services is increasing with an increase in population, and the minimum standards set by the technical panels and accreditations standards of voluntary professional organizations require keeping up to certain norms.

One overriding concern of the CHED is to promote and sustain excellence, relevance and self-reliance in the SUCs. Invariably, the sustainability of such is dependent on the ability of the institution to find ways and means to support institutional development. One of the means thought of and utilized by most, if not all administrators, is income-generating programs and projects (Bermejo, 2006).

The implementation of IGPs is a very important resource of the school. Benefits from these (TESDA-CLSU Guidebook on IGP) are as follows:

- IGPs improve the credibility of the school especially when the idle human, physical and material resources are made productive. It is not the size of the project or the quantity and complexity of equipment that matters, rather it is whether the students and the on-the-job trainees and other groups can be given the appropriate situation; knowledge and skills; and exposure to technology while providing them with support system to improve and increase production.
- IGPs are models for development. Real projects that generate income must be viable or observable. Information and technology dissemination is easier if people see samples of products in TESDA Trade Schools.
- IGPs serve as venue for hands-on training of students and other interested individuals/groups and future entrepreneurial capabilities; there is a need for them to learn by doing.
- IGPs provide opportunities for interfacing instruction, research and extension. Results of research are used to improve production and instruction. Experiences in the projects are shared by faculty, staff, students’ on-the-job trainees, entrepreneurs and others through instruction, extension and training.
- IGPs create employment. Establishment of IGPs requires human resources. As the projects become credible, more job orders may be requested; thus, more people are employed.

- IGP provide incentives to people who are honest, hardworking, committed and creative. The project staff can earn additional income depending on the income of the project and sharing arrangement.
- IGPs help in human resource development by giving scholarship slots to deserving students and financial support of non-degree training of faculty and staff.
- IGPs supplemented the budget of the school. The income can be used to employ/hire additional project personnel; purchase supplies, materials and equipment; and improve facilities needed for instruction, research, extension, training and productive activities.

3. Methodology

The concept of IGPs of UEP was conceived in 2007. Most of these IGPs, however, used to be production and special projects and have been converted into full-fledged IGPs after being approved by the University BOR. Based on the data gathered from the Office of the Director of Auxiliary Services and Business Affairs, as of December 31, 2011, the University is operating 11 IGPs which the researchers consider them all as the subjects of this study, namely: UEP-PGO Piggery Project; Farmers Training Center; Water Refilling Station; Garments and Textile Center; Kiddie Learning Center; Hostel; Gymnasium; Kapihan; Lights and Sounds; Ladies Dormitory; and the two new ones: the UEP-PGO Piggery Project which was funded by Grameen Foundation originally operated as livestock bank project, but recently approved by the BOR as IGP, and the identification card (ID) Production Project, which started in 2009 but was stopped in 2010 and revived again in 2011 as IGP.

This study used a descriptive-correlational research method to derive answers to research problems. The unit of analysis used to determine the profile of the IGPs in terms of length of operations, number of staff and average number of clients served is per income-generating project, but for the profile of the staff of the IGPs, which actually totaled to 11 composed of the project managers, the study uses the individual staff as unit of analysis. Moreover, in the determination of the extent of implementation of the IGPs, the unit of analysis is based on the responses of the 126 total individual respondents, 11 IGP managers, 5 members of the Board of management (the 5 members sit in all the 11 IGPs' Board) and 110 clients (10 clients per IGP).

In view of the lack of available studies that have been previously conducted about IGPs initiated specifically by state universities, the researchers develop their own instruments to be used in this study on the basis of their academic backgrounds and experiences and some inputs from colleagues who have adequate exposures to IGPs over a period of time. Studies about income-generating programs and projects initiated by other educational institutions other than the SUCs (Alamin, 2002; Orgaya, 2007; and Cruz, 2002) also help in the formulation of the research questions. The researchers, however, in their desire to enhance the validity and reliability of the instrument they have developed, they sought the technical assistance of known experts in the fields of business research, entrepreneurship or business management to review and validate the instruments. Their comments and suggestions have been integrated in the revision of the instruments, after which a pre-testing was done in some schools with IGPs.

The instruments used in this study are composed of three parts: Part 1 of the instrument derives information regarding the profile of the IGP in terms of the length of operations, number of staff and average number of clients served; Part II of the instrument determines the profile of the IGP staff in terms of age, educational attainment and number of trainings and seminars attended; and Part III of the instrument determines the extent of implementation of IGPs.

The study involves independent variables such as profiles of the IGPs in terms of length of operations, number of staff, average number of clients served and the profile of the staff in terms of age, educational attainment and number of trainings and seminars attended. The dependent variable is the extent of implementation of the IGPs (Figure 1).

The null hypotheses of the study that need to be tested are the following:

- H1. There is no significant relationship between the extent of implementation and the IGP profile.
- H2. There is no significant relationship between the extent of implementation and the profile of IGP staff.

The study had a 100 per cent response rate from the respondents, and this is so because most of the researchers are living inside the University campus, where majority of the respondents could easily be contacted. The data gathered have been treated and analyzed using the following statistical techniques.

3.1 Frequencies and percentages

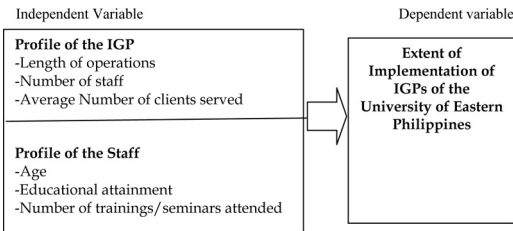
These were used to analyze the data obtained from Parts I and II of the survey instrument. The frequency count was used to show the number of times the responses were reflected in the survey. The percentage showed the relationship of the part to the whole, and the formula is presented below:

$$\% = n/N \times 100,$$

where:

- % = percentage;
- n = number of respondents;
- N = total number of respondents; and
- 100 = constant value.

Figure 1.
A conceptual
framework showing
the relationships
between variables



3.2 Weighted mean

This was used in interpreting the data on Part III. The weighted mean measured the central tendency of the responses, and the formula is presented below:

$$W_m = E_{fx}/E_f,$$

where:

WM = the summation of the frequencies of the corresponding weights; and
Ef = the summation of the frequencies/number of respondents.

3.3 Multiple regression analysis

To determine whether a significant relationship existed between the independent and dependent variables, multiple regression analysis was used. Likewise, the coefficient of determination was utilized to test how much degree of the relationship existed between variables, using $R^2 \times 100$ per cent.

The formula:

$$Y = b_0 + b_1x_1 + b_2x_2 + \dots + b_nx_n,$$

where:

Y = dependent variables (extent of implementation of IGP operations);
 b = parameters to be estimated; and
 x = independent variables (profile of the IGPs and profile of the staff).

All the data gathered were processed using the SPSS.

4. Results and discussion

4.1 Profile of the income-generating projects

The study covered 11 IGPs duly approved by the BOR. Of the 11 IGPs, 7 were involved in the delivery of services, such as lodging accommodation, venue rental, catering and food provision, lights and sounds and pre-school and basic education services. The other four IGPs were involved in the production and marketing services, such as the ID production, garments and textiles, hogs/piglets and purified drinking water.

Most of the IGPs have been in existence for less than five years, two have existed for 10-14 years and another two have existed for over 20 years, and majority of them have minimal number of staff.

4.2 Average number of clients

In terms of the average number of clients per month, the ID production project had the highest number of clients using individual person as unit of analysis. It had 600 individuals served per month, including the UEP students at all levels, the faculty and staff. The Kapihan had only five booking/venue rentals, with two catering services extended to private individuals, UEP students and other government and non-government agencies. Likewise, the Farmers' Training Center had only ten bookings/events per month.

4.3 Profile of the income-generating projects staff

Majority of the IGP staff were more than 40 years old, which is an indication that they are matured enough to possess the ability to be resourceful and to deal professionally with clients. Majority of them have finished graduate studies and are therefore equipped to make the necessary decisions in relation to the policies and goals governing the operation of the IGPs. Almost all of them have attended trainings related to their respective assignments.

4.4 Extent of implementation of the income-generating projects along the aspect of their length of operations

In terms of length of operations, the respondents claimed a “High Extent of Implementation” with a significant mean of 3.84. This indicates that the emergence and development of the IGPs significantly improved the income-generating capacity of the University. Corollary to this, the number of years that the IGP existed was adequate to ensure the efficiency of its operations and consistently helped the University improve its financial condition and operations (Table I).

The number of years the IGP’s existed was indicative of its viability and stability. The IGP’s existence has contributed toward building a good image of the university. It gave an indelible impression to the public and the government that the University has the capability to source out funds to augment meager resources by engaging in the IGPs and not be totally dependent on government subsidy/allocations. This may also serve as a venue for the students to have a hands-on training and experience on entrepreneurship. While learning, they earn income that may somehow help their families alleviate meager resources.

5. Test of relationship

Multiple regression analysis was used to test the hypothesis. The coefficient of determination was utilized to test the degree of the relationship that existed between variables using $R^2 \times 100$ per cent.

5.1 Test of relationship between the income-generating project profiles and the extent of implementation

5.1.1 Length of operation. This variable was not significantly related to the extent of implementation considering that the F -ratio (0.12061) was smaller than the significant F/p -value (0.72974); thus, the null hypothesis was accepted. It can be inferred that the length of operation does not influence the extent of the implementation. The growth and success of IGPs like any other business organizations depend on their operational performance, not on how long they have been in existence. Even business organizations that have been in existence over a long period of time cannot be spared from incurring loss or unfavorable performance in their operations.

5.1.2 Number of staff. This variable also was not found to be significantly related to the extent of implementation, because the F -ratio (0.00072) was smaller than the significant F/p -value (0.97863); thus, the null hypothesis of no relationship was confirmed. This indicates that the extent of implementation does not largely depend on the number of staff. The IGPs need to give more emphasis on the quality of their staff who have the necessary knowledge and skills and relevant experience to run the business, not on the quantity or number of staff. Hence, IGPs must look into the hiring and firing policies and procedures and give focus on the qualifications of the staff to be

	Mean score				Overall mean <i>n</i> = 126	Interpretation
	Staff <i>n</i> = 11	BOM <i>n</i> = 5	Client <i>n</i> = 110			
Length of operations						
The emergence and development of the IGPs has improved the income generating capacity of the University	4.40	4.20	4.10		4.13	High extent of implementation
The number of years that the IGP existed is adequate to ensure the efficiency of its operations	4.00	4.00	3.83		3.76	High extent of implementation
The IGP has consistently been helping the University in improving its financial condition and operations	4.60	3.60	4.10		3.75	High extent of implementation
The number of years of the IGP's existence is indicative of its viability	4.10	3.60	3.88		3.80	High extent of implementation
The number of years of the IGP's existence is indicative of its stability	4.10	3.60	3.70		3.75	High extent of implementation
Since its inception, the IGP had consistently been generating income for the university	4.00	4.00	3.90		3.88	High extent of implementation
The existence of the IGPs has contributed towards building a good image of the University	4.40	4.40	3.70		3.83	High extent of implementation
Overall mean score	4.20	3.90	3.84		3.84	High extent of implementation
Note: BOM = Board of Management						

Table I.
Assessment on the
extent of
implementation of
the IGPs along the
aspect of their length
of operations

hired and explore the need to streamline the operations if deemed appropriate, for example, maintaining a “lean and mean” staff structure.

5.1.3 Average number of clients served. This variable was found to be significantly related to the extent of implementation, because the *F*-ratio (12.46059) was greater than the significant *F/p*-value (0.00086); thus, it confirmed the research hypothesis. One of the factors that could contribute to the favorable performance or even the profitability of any business undertakings, like IGP, is the number of their clients being served. The higher the number of clients any business may have, the higher the economic benefits could be derived, which defines how effective the implementation of some business strategies and operational procedures have been effected and instituted (Table II).

5.2 Test of relationship between extent of implementation of the income-generating projects and the profile of the staff

5.2.1 Age. The age of the staff was not found to be significantly related with the extent of implementation of the IGPs. The *F*-ratio (0.02489) was smaller than the significant *F/p*-value (0.87551). This means that the age of the staff, no matter how old or young he/she be, does not in any way affect the extent of the implementation of IGPs. Moreover, the age of the staff does not absolutely guarantee of the profitability and viability of the IGPs.

5.2.2 Educational attainment. This variable was found to be significantly related with the extent of implementation, as the *F*-ratio (6.34092) was greater than the significant *F/p*-value (0.01625). This indicates that the educational attainment of the staff influenced to a large degree the extent of implementation of the IGPs. It further indicates that highly educated staff resulted to better implementation of the IGPs.

5.2.3 Number of trainings and seminars attended. Trainings and seminars were found to be significantly related with the extent of implementation. The *F*-ratio (3.54129) was greater than the significant *F/p*-value (0.06774), which suggests that there is a degree of relationship between these variables. More trainings and seminars for the staff would improve the performance in the implementation of IGPs (Table III).

Table II.
Summary result on
the relationship
between the extent of
implementation and
the profile of the
IGPs

IGP profile	<i>R</i>	<i>R</i> ²	Adjusted <i>R</i> ²	Standard error of estimate	<i>F</i>	Significance
Length of operations <i>X</i> ₁	0.04765	0.00227	−0.01655	45.69066	0.120615	0.72974
Number of staff <i>X</i> ₂	0.00369	1.36642E-05	−0.01885	45.74231	0.00072	0.97863
Average number of clients served <i>X</i> ₃	0.43629	0.19035	0.17507	41.15939	12.45059	0.00086

Table III.
Summary result on
the relationship
between the extent of
implementation and
the profile of the IGP
staff

IGP staff	<i>R</i>	<i>R</i> ²	Adjusted <i>R</i> ²	Standard error of estimate	<i>F</i>	Significance
Age, <i>X</i> ₁	0.02592	0.00067	−0.02633	32.63745	0.02489	0.87551
Educational attainment, <i>X</i> ₂	0.38249	0.14630	0.12323	30.16575	6.34092	0.01625
Number of trainings and seminars attended, <i>X</i> ₃	0.29555	0.08735	0.06268	31.18993	3.54129	0.06774

6. Recommendations

Based on the findings, the following recommendations/suggestions are advanced.

There is a need to streamline the operation of the IGPs which will adopt the “lean and mean manpower” strategy so that the services of the staff and employees will be maximized. IGPs should keep an ideal number of staff based on the magnitude of operations, which can be done after staff performance evaluation procedures have been made. The staff should be given skills development and enhancement programs for them to be able to maximize their skills and capabilities in handling and discharging their respective duties and responsibilities. If necessary, the staff should be given the opportunity to participate in an observational tour or a field trip for them to be exposed to SUCs with IGPs having best practices which they can be innovated or replicated in their respective work places after.

IGP management should develop and implement a reward and incentive program for the staff that will give recognition to those who will have impressive performance in the conduct of business operations. This will enrich self-esteem and enhance the morale of the staff while inspiring and motivating others to do the same.

The IGP management should develop a workable monitoring and evaluation system that will keep a track of the economic performance of every IGP, taking into consideration the periodic financial reports, inventory and receivable turnovers, fund accessing and utilization, operational problems and other related concerns. A Monitoring and Evaluation Team composed of representatives from the Board of management, from the staff, from the client sector and a key official from the University can be formed for check and balance purposes. Somehow, this will promote a good working atmosphere and more effective collaborative mechanisms between and among the stakeholders of the IGP.

The IGP management should look into the possibility of establishing functional linkages with other institutions for fund accessing, technology innovation, development, transfer and, more importantly, getting accreditation or seeking membership in some different trade organizations or enterprise development councils at the local and even national levels.

6.1 Future research

As the study was limited to only 11 IGPs in just one university, it is suggested that further study or investigation about IGPs of SUCs be conducted not only for the purpose of validating the findings and conclusions derived from this study but also for significantly focusing on the following, but not limited to, areas, to wit: financial viability and or profitability of IGPs among SUCs elsewhere in the country; economic and social contributions of IGPs to the SUCs; management practices of IGPs among SUCs; and other related topics.

References

- Alamin, M.B. (2002), “Profitability of income generating projects in technology/home economics in vocational schools in Samar”, Unpublished Master’s Thesis, SSPC Graduate Office, Samar State Polytechnic College, Samar, pp. 65-66.
- Bermejo, M.P. (2006), “Management and operation of the Central Luzon State University College income generating projects”, Unpublished Master’s Thesis, Institute of Graduate Studies, Central Luzon State University, Science City of Munoz, Nueva Ecija, pp. 33-34.
- CHED (1997), Higher Education Modernization Act of 1997.

- Cruz, N.C. (2002), "The economic development programs of local government units in Northern Samar", Unpublished Master's Thesis, University of Eastern Philippines, Samar.
- Florendo, F.S. (2005), "Income generating projects and institutional development of selected State Universities and Colleges in Luzon: implications to policy formulation", Unpublished Doctoral Dissertation, Technological University of the Philippines, Manila, March, p. 64.
- Orgaya, N. (2007), "Productivity through income generating projects: camarines Sur Polytechnic College experience", Unpublished Master's Thesis, School of Graduate Studies and Research, Naga College Foundation, Naga City.
- Parkin, M. (1993), *Economics*, 2nd ed., Addison-Wesley Publishing Company, Boston, MA.
- Villegas, B.M. (1983), *Economics for the Consumers*, Fourth Edition, Sinag-Tala Publishers, Manila.

Further reading

- Business Dictionary (2010), available at: www.waldenU.edu (accessed 5 November 2010).
- Castillo, A.V. (1986), *Principles of Economics*, World Current Events, Manila.
- Fajardo, F.R. (1994), *Economic Development*, 3rd ed., National Bookstore, Manila.
- Guevarra, D.G. (2010), "PUP: the total university ten-point Agenda", available at: www.pup.edu.ph/president (accessed 8 June 2010).
- Income Generating Project (2010), "An accomplishment report", available at: www.urs.edu.ph/accomplishments (accessed 9 June 2010).
- Muhi, E.T., Panopio, I.S. and Salcedo, L.L. (1993), *Dynamics of Development: The Philippine Perspective*, National Book Store, Manila.
- Samuelson, P.A. and Nordhaus, W. (1992), *Economics*, 14th Edition, McGraw Hill, Inc. NY.
- TESDA-CLSU, Guidebook on Income Generating Project.
- Tullao, T.S., Largoza, G. and Castillo, C. (Eds) (1995), *Issues in Philippine Economic Development*, De La Salle University, Manila.
- University of the Philippines Visayas (2010), "Consolidated implementing guidelines for the UPV income generating program", available at: www.upv.edu.ph (accessed 8 June 2010).

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