



Matching Provincial Development Needs with Higher Educational Programs in Zamboanga del Norte

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Abstract

This study aimed to look into the provincial development needs vis-à-vis the current educational programs of the Higher Educational Institutions in Zamboanga del Norte during the calendar year 2011. The study revealed that the top priority development needs of Zamboanga del Norte were economic, environmental, and infrastructure development aspects, while the top most offered program among the HEIs of the province were on teacher Education, Nursing, and Allied Health. The study revealed further that program offerings of HEIs did not directly meet the provincial development needs of the province. The study concludes that the development needs and program offerings do not match. It is recommended that the HEIs offer programs that directly respond to the development needs of the province. Training institutions should link with the provincial government to be able to identify the HEIs' programs for offering and the necessary training to be conducted while the students are still in school. Moreover, higher education institutions amalgamate program offerings and settle on their expertise and capabilities based on their respective charter.

Keywords and Phrases: provincial development needs, current HEIs programs.

Introduction

The Philippines ranks 87th out of the 134 countries in the Global Competitiveness Index published by the World Economic Forum in 2011 (Colminares, 2011). Based on the pillars of competitiveness, like infrastructure, education macroeconomic stability, market sophistication, health labor market efficiency, the country from the 71st ranked in 2009, it dropped to 16th places below after a year. The figure vividly shows this country lacks the mechanisms to make some solid performance where the present and future prosperity of the people can be built. There are efforts by the government all over the country in improving the situation. Political leaders made their boldest step to address the problem by the creation of Jose Rizal Memorial State University. Its first year of existence as a leading higher education institution along with existing private HEIs explored opportunities and varied ways in coming up with relevant response to the need of this community. Quality programs are offered and highly equipped graduates with requisite skills are produced. The provision of relevant skills to the labor force, to equip their clients with knowledge and positive attitudes demanded by the different fields particularly in Agriculture, Business, Tourism, History, Policy Studies, Art, Sciences,

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Environment, Mathematics, Language, Humanities, Education, Nursing and Allied Health Sciences, Maritime, Engineering, Information Technology, and Criminology.

Objectives

This study aimed to look into the provincial development needs vis-à-vis higher educational programs in all private and public Higher Educational Institutions (HEIs) in Zamboanga del Norte during the calendar year 2011. Specifically, the study sought to determine the following:

1. Provincial development needs in Zamboanga del Norte in terms of :
 - 1.1 economic development ;
 - 1.2 environmental development ;
 - 1.3 human development ;
 - 1.4 infrastructure development ; and
 - 1.5 peace and security development.
2. The current status of the HEIs' programs in Zamboanga del Norte in terms of:
 - 2.1 Agriculture, Business, and Tourism;
 - 2.2 History, Policy Studies, Art, Sciences, Environment, Mathematics, Language and Humanities;
 - 2.3 Education, Nursing, and Allied Health Science;
 - 2.4 Maritime, Engineering, and Information Technology; and
 - 2.5 Criminology.
3. The significant relationship between the provincial development needs and the program offerings of Higher Education Institutions. The new HEIs' programs should be offered in Zamboanga del Norte which are sustainable, relevant and which meet provincial needs.

Research Method and Design

The descriptive method of research was utilized in the study with the aid of the documentary analysis. The data were gathered through the documents from the provincial government offices and offices of the Registrars from the Higher Education Institutions. A correlation analysis was utilized in order to determine the significant relationship between the variables in the study. Frequency counting was used to determine the provincial development needs of Zamboanga del Norte along economic, environmental, human, infrastructure, and peace and security development based on the assertion of the government offices and agencies. It was also used to determine the number of higher education institutions in the province offering curricular programs. Ranking was employed to determine the priorities among the provincial development needs. It was also used to rank the program offerings of the higher education institutions of the province. The Spearman Rank-Order Correlation Coefficient used to find the relationship between the provincial development needs and the HEIs' program offerings in Zamboanga del Norte.

Results and Discussion

Economic Development Needs in Zamboanga del Norte. Table 1 presents the data on the economic development needs in Zamboanga del Norte. The financial assistance to



farmers was the highest priority for the farming industry. This is so because the farmers are the drivers of the basic agricultural products that are sold in the different markets of the country. Ranked second is technology in support for the farmers which could also help them attain better harvest and manage their harvest to find a better market and income. Urban expansion ranked third, it will help the people attain better lives through living in an urban area where there opportunities for growth and development. In the fishery industry, cold storage was a primary and top priority for development. Fishes that are not sold at once are stored and sold at a better market despite the length of time these have been caught. Development along social stability would afford the people to live a life that is better than what they have in the past. In the manufacturing industry, a lot of priorities were present. All these priorities are intended for economic development and for the business sector to have its contribution on the so called growth and development of the province. On the transportation sector, the top priority was in the improvement of the transportation means and facilities in order to facilitate accessibility through land, air and water transportation. Infrastructure needs should be met first if the provincial government wants a big leap in the tourism industry as well as the business industry in the province.

Table 1 Economic Development Needs

Economic Development Indicators	Frequency	Rank (Order of Priority)
Farming		
Urban Expansion	15	3
Strengthening Farmer's Cooperative	13	4
Financial Assistance to Farmers	20	1
Technology (Support, waste management)	18	2
Fishery		
Technology (cold storage facilities)	20	1
Social and community stability promoted	18	2
Manufacturing and Trading		
Provide financing and assistance	25	1
Improve production technology	23	2
Promote business networks, partnership and Alliance	22	4
Pursue policy agenda for bank to soften loan requirements	20	3
Strengthen linkages and support Chamber of Commerce plan for expansion of its membership and programs	15	7
Establishment of an agro-based marketing and processing center	17	6
Encourage LGUs to enhance implementation of One Town One Product (OBOP) Program	10	8
Provide business opportunities and enterprise creation approaches	8	9
Business support services.	20	5

<i>Table 1 cont'd</i>		
Tourism		
Development and promotion of potential tourist destinations areas	25	1
Improvement of support infrastructure facilities and other utilities	20	3
Provision of support services (links to other service providers, mentoring, networking, training, capacity building)	18	4
Formulation of a 5-Year Tourism Development Plan	15	5
Promote Eco-bound tourism sites	24	2
Transportation		
<i>Land</i>		
Accessibility through road expansion	26	1
Enhance adequate transport systems and minimize public inconveniences	25	2
<i>Air</i>		
Upgrading of airstrips into secondary airports to allow commercial flights to service the central and southernmost towns	19	2
Upgrading of Air Navigational Facilities (ANF)	21	1

Environmental Development Needs of Zamboanga del Norte. Table 2 presents the rank according to order of priority along the environmental development needs. A ranking of was necessary because of financial constraints on the part of the provincial government. The environment has to be protected first and prevent another destruction. This implies that programs must be at work and to be in progress to forewarn especially vulnerable communities and shall increase the capability of local governments in the province for early warning and action. This further implies that lives of people are saved.

Table 2 Environment Development Needs of Zambonga del Norte

Environmental Development Needs	Frequency	Rank (order of priority)
Natural Farming System Promotion (organic farming)	20	3
Environmental Rehabilitation	26	1
Monitoring mining activities	14	5
Coastal Resource Management	17	4
Mangrove Rehabilitation	23	2

Human Development Needs of Zambonga del Norte. Table 3 are the human development needs of the Province of Zamboanga del Norte, educating people in Zamboanga del Norte along agriculture, tourism and other disciplines is a significant component in the efforts of the Provincial Officials to place the province to as top performing province in the country

**Table 3 Human Development Needs**

Human Development Needs	Frequency	Rank (Order of Priority)
Agricultural Education	23	1
Training of farmers and fisherfolks on legal fishing and the laws and policies	20	3
Sending agricultural workers to seminars	14	7
Orientation/Reorientation of farmers and farming stakeholders on the importance of organic farming	19	4
Educating agriculture stakeholders on the different programs of the Department of Agriculture as implemented in every municipality	17	5
Educating people on the importance of tourism activities	15	6
Business education (i.e. One Barangay One Product (OBOP); One Town One Product (OTOP), Recognizing business opportunities and business implementation	21	2

Infrastructure Development Needs of Zamboanga del Norte. Table 4 reflects the infrastructure priorities of the province of Zamboanga del Norte. The disasters occurring in different parts of the country the disaster mitigation principles in infrastructure development was most significant in the province. The increasing use of technology in all aspects of society makes confident, creative and productive use of ICT an essential skill for life. Physical infrastructure covering transportation, power and communication through its backward and forward linkages facilitates growth, social infrastructure including water supply, sanitation, sewage disposal, education and health, which is in the nature of primary services, has a direct impact on the quality of life and poverty reduction in the province. Another is the support for wharfs and ports which are very much needed if the province intends to cater more tourists and support the tourism industry boost in the years to come. The maintenance and repairs of roads gives way for businesses to grow and for people to access to different places particularly tourist sports, tourist destinations and tourist activities. These activities increase income of government in the form of taxes and collections of fees and charges serve as the lifeblood of the government, which enables it to find their activities and programs. Continuous upgrading of port facilities for safe and efficient transport of goods and services within and outside the province were identified as the last of the priorities. The multiplicity of forms of port facilities and their diverse funding characteristics means that the relationship of port facilities to economic output is not only very complex but also very real.

Table 4 Infrastructure Development Needs

Infrastructure Development Needs	Frequency	Rank (Order of Priority)
Agricultural Support	19	4
Information Communication Technology (ICT) for a more efficient communication services promoted	24	2
Infrastructure projects that will allow increased access to basic social and other development services while catering to productive sectors and market-based industries prioritized and implemented	20	3
Construction of fish ports and wharfs	18	5
Maintenance and repairs of existing roads	17	6
Prioritize the completion of major road projects in the Zamboanga West Coast Road Project and the Dapitan-Dakak –Rizal Town Coastal Loop Project which were part of the SONA of the President, and Dipolog-Pagadian City Road Project	16	7
Improvement/expansion of Dipolog City airport to meet international standards	13	10
Continuous upgrading of airport facilities to meet international standards and be at par with modern technologies	14	9
Improvement/expansion of Wharfs	15	8
Disaster mitigation principles in infrastructure development incorporated	26	1
Continuous upgrading of port facilities for safe and efficient transport of goods and services within and outside the province	10	12
Local and private sector participation in infrastructure planning and implementation promoted	12	11

Peace and Security Needs of Zamboanga del Norte. Table 5 shows as top priority the implementation of the “closed zone” and other fishery law in order to protect the fishes from being caught during their juvenile stage. Fishes should be allowed to grow up to its maximum growth size before it shall be allowed to be caught by fishermen. Ranked second identified needs was the implementation of the laws and policies for forest preservation and mineral conservation where the provincial government officials wanted the forests to be visible enough and protect it from illegal logging and other unlawful usage of the forest. With forest preservation and conservation, one could be assured of a better environment protected from natural disasters. Ranked 4 and 5 were the police patrol and visibility in the area. This is evident as one could witness police checkpoints within the province. A peaceful province could be a nice place to live and do business



with Finally, implementation of the laws and regulations as to sand and gravel extraction is also regulated in the province. It is facing the problem so that the rivers and shores would not erode. This kind of business could be devastating to the populace as this would cause the rivers to widen up so much that waters could no longer be controlled.

Table 5 Peace and Security Needs

Peace and Security Needs	Frequency	Rank (Order of Priority)
Implementation of “closed zone” and other fishery law	25	1
Implementation of laws and policies for forest preservation and mineral conservation	23	2
Implementation of laws and policies as to sand and gravel extraction.	17	5
Police visibility in crowded areas	20	3
Police patrol operations strengthened	19	4

Summary

Table 6 presents the summary of the provincial development needs. It reveals that the top most priority among the five provincial development needs were along economic, environmental, and infrastructure development to provide a big leap in the tourism and business industry in the province with direct impact on the quality of life and poverty reduction in the province. All these are challenges to the province of Zamboanga del Norte towards the creation of a new, peaceful, humane and competitive province in the Philippines. This finding is supported by Olsson (2006) whose study revealed the significance of infrastructure projects like road which substantially improved the study area’s regional network accessibility. Production, employment, trade, competition, incomes and mobility increased substantially in all major economic sectors and in new ones, and among households. In absolute terms, socioeconomic development, economic growth, and environmental protection were attained within the study area after the infrastructure road project.

Table 6 Summary Table of the Provincial Development Needs

Provincial Development Needs	Frequency	Rank (Order of Priority)
Economic Development	26	2
Environmental Development	26	2
Human Development	23	5
Infrastructure Development	26	2
Peace and Security Development	25	4

Program Offerings among HEIs in Zamboanga del Norte. In table 7 are the program offerings of the higher education instructions in the Province of Zamboanga del

Norte. For purposes of matching program offerings and the development needs of the province, program offerings are grouped into five clusters. Program offering with the most number of institutions determined the frequency of the cluster. It could be evident the Province of Zamboanga del Norte put priority along the development of agriculture. But, few schools are offering the program, with also very few enrollees. The Jose Rizal Memorial State University which is offering the program registered low enrollment in the course. This means that the course has become unattractive to the young students. This implies that there is misconception about agriculture which are reasons for students to draw away from the course which is actually most needed to address and fight poverty and hunger. This may be due to the understanding that agricultural workers are farmers, in fact, it is far from the truth

Table 7 Program Offerings Among HEIs

Programs	No. of HEIs Offering the Program	Rank
Agriculture, Business, and Tourism	9	3
History, Policy Studies, Arts, Sciences, Environment, Mathematics, Language and Humanities	12	2
Education, Nursing, and Allied Health Science	14	1
Maritime, Engineering and Information Technology	8	4
Criminology	4	5

Table 8 Test of Relationship Between the Provincial Development Needs and the HEIs Program Offerings in Zamboanga del Norte

Variables	Computed r_s	Description	Computed T	Decision
Priority Development Needs	-0.100	Negligible Low Correlation	-0.174	Ho Not Rejected
HEI Program Offerings				

Table 8 shows the test of relationship between the provincial development needs and the HEI program offerings in Zamboanga del Norte. The computed correlation coefficient is -0.100 which is interpreted as negative negligible low correlation. This means that provincial development needs are not directly related to HEIs program offerings. This means further that schools are not directly offering programs that are needed for provincial development. This implies that the higher the provincial development needs are there in the province, the lower program offerings match with the needs of province of Zamboanga del Norte. Take the case of the program on agriculture where only few schools are offering yet, the primary target of the Provincial government is the development of agriculture in the Province. This means to show that students are also misinformed of the course importance and social significance to well-being of the people and the province. The situation prompted them not to enroll into the discipline.

**Table 9 Matching Provincial Development Needs with the HEIs Program Offerings**

Programs	Frequency	Rank	Provincial Development Needs	Frequency	Rank	Difference in Ranks
Agriculture, Business, and Tourism	9	3	Economic	26	2	1
History, Policy Studies, Art, Sciences, Environment, Mathematics, Language, and Humanities	12	2	Environment	26	2	0
Education, Nursing, and Allied Health Sciences	14	1	Human	23	5	- 4
Maritime, Engineering, & Information Technology	8	4	Infrastructure	26	2	- 2
Criminology	4	5	Peace and Security	25	4	1

In order to match the provincial development needs with the program offerings, the difference between the rankings must be equal to zero (0). As shown on Table 9, there is a difference especially on the area of agriculture, business and tourism as the top priority in the province but only few HEIs are offering the programs. This could be seen as the greatest mismatch between the provincial development needs and the program offerings of the HEIs. This implies that the schools are offering programs that are not generally in demand and are not within the provincial development needs of Zamboanga del Norte. History, Policy Studies, Art and Sciences, Environment, Mathematics, Language, and Humanities match perfectly with the provincial development needs. A difference of zero was obtained along this cluster. This means that these needs of the province are directly supported by the HEIs program offerings. On the other hand Education, Nursing and Allied Health Sciences, however, which ranked first in the HEIs program offerings was only ranked fifth in the provincial development needs. This means that, there are already a lot of teacher educators who are unemployed yet. This implies that putting this as priority need would only add more to the problem of unemployment to the province. The absolute value of the computed t-value of -0.174 is less than the tabulated t-value of 2.353 at 0.05 level of significance with 3 degrees of freedom. There is therefore, no significant relationship between the provincial development needs and the program offerings of the higher education institutions. This means that the priorities of the province are not in the same way as the priorities of the higher education institutions.

HEIs Programs to be Offered in Zamboanga del Norte. Based on the results of the study, the program offerings among HEIs include program in agriculture to cater the entrepreneurial skills of the students as well as the application of technology to attract students in the program. Advancing technology into the agriculture program will enhance and will provide a new field to young people. It is seen that the BS Agriculture is one of the least attractive programs offered by the institutions which made it a reason that this was less prioritized by the higher education institutions. The matrix of course inclusions are shown in the table 10. The basic accounting, bookkeeping and management courses would provide the students with knowledge and skills in the accounting and management profession which are inherent tools for one business to prosper. The training along these courses will focus so much on business and the technical works. The accounting process and bookkeeping will endow the students with knowledge on the accounting process, the principles of accounting and auditing, the procedure in bookkeeping and managing finances and organizations in general. Other courses would allow the students creativity through entrepreneurship in agriculture. This would allow the students to artistically view business through agricultural products and hopefully come up with business designs that are generally unique and worth investing.

Table 10 Matrix of Course Inclusion for the BS Agriculture Program

Course	No. of Units	Year level
<ul style="list-style-type: none"> • Basic Accounting • Bookkeeping • Management 	<p>3</p> <p>3</p> <p>3</p>	1 st year
<ul style="list-style-type: none"> • Entrepreneurship in Agriculture • Business Plan Preparation 	<p>3</p> <p>3</p>	2 nd year
<ul style="list-style-type: none"> • Agricultural Entrepreneurship • Discovering Business Opportunities in Agriculture • Business Implementation In Agriculture 	<p>3</p> <p>3</p> <p>3</p>	3 rd year
<ul style="list-style-type: none"> • Technopreneurship (subcontracting livestock with small-medium-large scale producer-consumer) • Business Evaluation 	<p>3</p> <p>3</p>	4 th year

Findings

Among the priorities in economic development, the top most priorities were giving assistance to farmers, providing technology for fishery industry, providing financial assistance to support the manufacturing industry. On the tourism sector, the top most priority were in the development and promotion of potential tourist destinations while the transportation sector needs upgrading of existing facilities for the airport and accessibility through road expansion. For environmental development needs, environmental rehabilitation was the top most priority.



For human development, the top most priority was agricultural education and educating the people on the one town one product and one barangay one product entrepreneurial activities. For infrastructure development, disaster mitigation was the top most priority. Implementation of the “closed zone” and as well as laws and policies as to sand and gravel extraction was the top most priority as to peace and order needs. Economic development, environmental development, and infrastructure development were identified as the top most priority of the provincial development needs of Zamboanga del Norte. For the program offerings among HEIs, the cluster on teacher Education, Nursing, and Allied Health Sciences were the top most offered program. Ranked second was the cluster on History, Policy Studies, Arts, Sciences, Environment, Mathematics, Language, and Humanities. Next in the rank was the cluster on Agriculture, Business, and Tourism. Ranked fourth was the cluster on Maritime, Engineering, & Information Technology. The least among the priorities was on Criminology. The developments needs of the province and HEI program offerings showed negative negligible low correlation. There was no significant relationship between the provincial development needs and the HEIs program offerings. As to employment needs the province in need for more police officers, service workers, firemen, engineers for housing and construction, airport expansion, and seaport and wharf rehabilitation.

Conclusions

Based on the findings of the study, the researcher hereby concludes that the HEI program offerings do not directly meet the provincial development needs of the province. Most significantly there are only very few schools offering agriculture program where the program is most needed in Zamboanga del Norte being an agricultural province.

Recommendations

Based on the findings and conclusions, the researcher hereby offers the following recommendations:

1. The HEIs need to coordinate with the provincial government as to the offering of programs that would directly answer the development needs of the province.
2. Training institutions should link with the provincial government for them to be able to specify the HEI programs to be offered and the necessary training to be conducted while the students are still in school.
3. Higher education institutions should amalgamate program offerings and settle on their expertise and capabilities based on their respective charter.

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