Estimating Economic Impact of State University in the Local Economy: A Direct Expenditures Analysis

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Abstract

The focus of this study was to estimate the economic impact of Romblon State University on the economy of the province of Romblon in terms of the university's direct spending activity. The researchers realized that determining the economic impact of the University would be beneficial to the university itself, to the community where the university is located, to the funding institutions, to the students and other researchers. The general objective of the study was to determine the economic impact of Romblon State University in the province of Romblon. To answer the main objective the following specific objectives were established: identify the source of fund of Romblon State University, determine the direct expenses as to operational expenditure and; capital expenditures; define the spending multiplier that will use to calculate in estimating the impact.

The research approached used in this study was quantitative and descriptive. The study used secondary data in conducting the research. The ten fiscal years' financial statements of Romblon State University were gathered and scrutinized to meet the objectives of the study. The Keynesian model was employed to determine the spending multiplier and used to compute for in estimating the economic impact. The use of regression analysis was also done to analyze the significance of each variable used in determining the economic impact models.

According to the analysis of the secondary data and findings of this study, the existence of Romblon State University in Romblon province greatly impacts the economy of the province with regards to its direct expenditures. The coefficient, as a result of regression analysis in this study, defines the estimated direct impact of spending activity of Romblon State University on the economy of Romblon. The index measure employed in this study finds the increased and decreased change in proxies' contribution to the economy. The spin-off activity of every peso that the university is spending within the province creates an impact on the economy of the province.

Keywords: Economic Impact, Direct Expenditure Analysis, Romblon State University, Modelling, Keynesian Model, MIMAROPA, Philippines

Introduction

In the Philippines studies about colleges and universities concerning its impact in the economy have been important public relation tool. The use of economic analysis brightens the economic benefits of state universities. The impact on the economy to state universities provides prior data information to the constituents and administrators that will result in job creations in a higher education institution. In addition, it increases in volumes of business generated within the institution.

In the provinces and city, state universities are valuable in their economy. Since the state universities are immovable institutions and due to its steady presence in the community they are fairly resistant's to business cycle fluctuations. It tends to invites revenue from the outside immediate area through endowment income or the state tax allocations, tuition, and attracts human capital-like students and employees from the national market- which contributes to the areas economic growth (Steinacker, 2005, Iqbal and Qasi, 2019)

A college or university impacts its local community in so many ways. Every individual, organization, and institutions have an essential role played in society. The presence of the university generates an economic impact on a community, local, regional or country. The impact of the educational institution on the community was extensively wide. The effects of universities in local and regional areas are observable in many fields beyond the economy such as politics, demography, social aspects, infrastructure, culture, attractiveness, and economy (Goryakin et. al, 2015). The changes in citizens' participation and political process improvement are the observable impacts of education in politics. Population structure, population growth, mobility are the observable impact of education in demography. The influences in regional identity and region's image, the influence of students and the quality of life are the impacts on social aspects. Also, the area of infrastructure impacts housing, traffic, healthcare services, and retail. However, for the cultural aspects, the influence on the greater offer in cultural goods is upon the cultural environment. The influence of the region's (local) image, the influence of the students, and regional (local) identity are

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impacts of educational institutions in terms of attractiveness of the area. Lastly, regional/local income, industrial structure, job market, labor mobility are the economy's impact (Bing, 2011, Kotosz. et al., 2015).

According to Felsenstien (1996) and Tavoletti (2007), the study of the impact of the universities on that metropolitan area economy divided the university's impact on their local and regional areas into backward and forward linkages. Backward linkages refer to the spending by university staff and students, and of the university itself, on income and employment in the local area. A forward linkage refers to the outputs of university activities, notably the production and dissemination of knowledge within the local economy, through graduates and the conduct of research with links in the local economy.

There were three types of backward linkage, to local household, local government and local business. University's impacts on local households are generally positive through a direct and induced effect on income and employment. On local government, the impact may be mixed. The presence of the state university can expand the tax base and therefore increase the revenues of the relevant local authority. On the other hand, the universities might make considerable demands upon the provision of services by the local government. The effects on local businesses may also mixed. Local businesses can benefit from the supply of goods and services to a university. However, universities may operate on such a scale as to compete with the local firms in labor and property markets leading to some displacements effects.

Furthermore, there were three types of forwarding linkages. The first is the attractiveness of the local area to households and firms which refers to the attractiveness of the university in a certain area and generates a positive "quality of life" externalities. Then, the pool of knowledge refers to the additional knowledge base that includes contract researches and consultancies, and the whole series of university-business links. Lastly, in the form of changes the human capital for the local level which refers to the graduates who stayed in the local area after finishing their studies which raises the level of human capital. The expenditure effects and knowledge effects can be incorporated into a single measure (Beck et al., 1995 and Nauffal, 2019).

The overall economic impact can be defined as the difference between the existing level of economic activity in a region and the level of activity if the university concerned did not exist. Allowing for the university's impact on the region's stock of human capital and technological base, and other dynamic effects, this single measure would be the discounted value of differences inflows of future economic activity. Furthermore, there is a potentially greater problem in attempting to marry expenditure effects and knowledge effects in the way as suggest. While their method mat at first glance appears theoretically sound, because expenditure effects and knowledge effects are very different, the appropriate means of analyzing them are also very different. Expenditure effects are largely static whereas the importance of knowledge effects – but also the difficulty in analyzing them – stems from the fact that they are dynamic.

The economic impact is an organization's influence in a geographic area as a result of its income and expense-generating activities. Inspired by Felsenstien's backward linkages theory, the phase begins with the university's efforts to attract revenue from the different stakeholders. It continues as it allocates that pesos-Philippine currency-to purchase goods and services, pay wages and salaries, deliver academic programs, and hold special events; as that money circulates further into the economy as companies reinvest them in their businesses and as individuals spend them on and off-campus.

Education is viewed as an investment in human capital and, as such, imparts a regional economic impact to the extent that graduates remain in the area and have higher lifetime earnings (Goldstein and Drucker, 2016; Blackwell et al., 2002). In the national aspect, reports of Ralph Jennings of Forbes (2017) the Philippines is the second-fastest growing economy in East Asia. The country's Gross Domestic Product (GDP) growth went upward by 6.9% this year 2017, per World Bank's estimate. Public infrastructure spending will hit a record high of $17.7 billion, more than 5% of the GDP. Deepening to the regional aspect, Region IV –B MIMAROPA in the Philippines is on the fifteenth place in total regional equity list with only 9.479 billion pesos, far from the leading NCR having 137.649 billion pesos equity. Romblon is one of the provinces with the lowest equity having only 435.060 million pesos during the year 2015. An explanation coming from the University of the Philippines Center for Public Integrity explains that equity in certain areas is affected by the type and number of investments. Furthermore, the educational attainment of human resources, the infrastructures, the communication system, and transportation, play a big part in attracting investors.

In the province of Romblon, the only state university recognized by the Commission of Higher Education (CHED) was Romblon State University. It is composed of nine campuses located on the different island of Romblon with programs of different levels of accreditation. It is safe to say that Romblon State University monopolized the education sector at the tertiary level and graduate level of the aforementioned province. Romblon State University is a government institution that provides higher learning in the whole province of Romblon and nearby provinces.

Given the aforementioned scenario, the Romblon State University (RSU) plays a great role in elevating the economic condition of the province. Thus, this study estimated the impact of Romblon State University on the economic growth and development in the province of Romblon. The investigation was undertaken to address the following questions:

1. What is the source of the fund of RSU?
2. What are the direct expenditures of the Romblon State University in terms of (a) Operational Expenditures; and (b) Capital Investments?
3. What measure will be used to determine the economic impact of the Romblon State University in the province of Romblon?
4. What factors is the indicator of the provincial economy that can be used in determining the impact?

5. Do Romblon State University's direct expenditures impact the economy of Romblon province?

Research Methodology

The study utilized the descriptive correlational design. Bist (2014) stated that descriptive research includes all studies that purport to present facts concerning the nature and status of anything – a group of person, several objects, a set of conditions, a class of events, and a system of thought or any other kind of phenomena which one may wish to study. The current investigation was determining the impact of direct expenditures of Romblon State University. Thus, the study determined the impact using the ten fiscal years of financial statements provided by the University; hence, secondary data were utilized in this analysis.

In this study, a quantitative and descriptive approach was undertaken. Financial records as secondary data were used to measure the university's spending activity economic impact considering the operational expenditure and capital expenses of Romblon State University.

The researcher gathered the secondary data necessary for the study. The data were placed in a table for presentation. Data were sorted categorically as to income and expenses to show the trends. This study used the spending impact procedure to measure the economic impact of the university on the province. The initial injection of income into the local economy – consisting of expenditure by the university– constitutes the direct effect.

Since the study was focused on the analysis of the economic impact the Romblon State University's income and expenditures, the study based the investigation on the historical data that were gathered from the University, Commission on Audit's report (COA) and Philippine Statistics Administration (PSA).

The researchers requested and obtained the ten-year financial statements starting from the fiscal year 2007 to 2016. Data were tabled as to income and expenses and were examined. The data have been analyzed using regression analysis stepwise to determine the impact of Romblon State University on the economic growth in the province of Romblon in the aspect of its operational and capital spending activities. The faculty and staff expenditure were not included since the salaries and wages are part of the University's operational expenses.

The researchers employed the Keynesian Spending Multiplier model to measure the total economic annual impact. The model determines the amount of stimulus provided to the economy of the province.

This concept was inverse with the MPS or also known as the marginal propensity to save. Hence, if the consumer is saving their money, the greater the multiplier is diminishing. In other words, if the MPS is higher, consumers save more and the multiplier decreases creating a smaller and less effective stimulus. It follows that the higher spending and lesser savings the consumers took, there will be a greater effect in the stimulus and there is an increase in the multiplier. In this study, the university's expenses were considered as the consumption or the MPC, while leakages were the savings or the MPS. In this process, the multiplier effect is closely tied with the economic concept and the spending multiplier. In just a pin of change in the spending Romblon Ste University, it would reap a huge change in the province of Romblon.

The researchers used proxies in measuring the impact since GDP was not used as an economic indicator of the province. Indices were done on proxies to express economic data time series and to compare contrasting information. Regression analysis was employed to determine some significant factors as an indicator in measuring the impact.

The study has been conducted in the province of Romblon where the university is located. The Romblon State University is composed of eight campuses situated in the different island of the province. The town of Odiongan is the place where its main campus is situated, other campuses where at the town of Romblon; town San Andres Campus, town San Agustin Campus, town Santa Fe Campus and town Calatrava Campus which are all located in Tablas Island. San Fernando Campus and Cajidiocan Campus can be found in Sibuyan Island and the Sawang Campus which is situated on the main island of Romblon.

 The ten years financial statements (FS 2007 – 2016) were gathered through a request letter sent by the administrative office of Romblon State University on the main campus. Other secondary data used as a proxy for the GDP in determining the impact were taken from the Philippine Statistics Authority.

The impact per year has been computed based on the Keynesian Theory of Economics; a theory in economics for the economy's total spending (Ahiakpor, 2004). John Maynard Keynes asserted that expenditure, meaning how much an economy spends on goods and services, is the key to economic stimulation. The impact on direct spending activity of the university per year was computed using the simple spending multiplier (Multiplier = 1/ (1- MPC) or 1 / MPS). The spending multiplier can be calculated from the marginal propensity to consume (MPC) or the total yearly expenses of the university, or the marginal propensity to save (MPS) or the excess of income over expenses.   Since the MPC is measured by as ratio as the ratio of change in saving to change in income, its value lies between 0 and 1. The marginal propensity to save is the opposite of MPC. The formula MPC + MPS = 1 since an increase in one unit of income will be either consume or save. The index was done to proxies using the formula Index N = Current Value/Base Year x 100, where Index N is the index value, Current Value is the value compared with the base value and Base Year is the initial value.

The regression analysis has been applied to pick out from the variables the potential explanatory factors or so-called predictors that significantly contribute to the Romblon State University's direct expenditures impact the economy of Romblon province. The SPSS v22 application is used for computation and to avoid unnecessary miscalculation for analysis and model generation. The model used in testing the hypothesis of the study was $y = c + bx_0$, where y represents the dependent variable (or the variable to be predicted), c is equal to constant and b is the coefficient of predictor and x_0 is the independent variable or predictor. Since

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gross domestic product (GDP) applies only to regional and national economic measures of the country, the researchers use proxies to measure the impact of the university. Among the alternatives were the total population of Romblon province, annual agricultural production of the province, buildings constructed in the province of Romblon. The ten-year trends of proxy data were gathered from the Philippine Statistics Administration.

Figure 1 shows the research framework diagram which shows how the economic impact of Romblon State University can be determined through the university's direct expenditures.
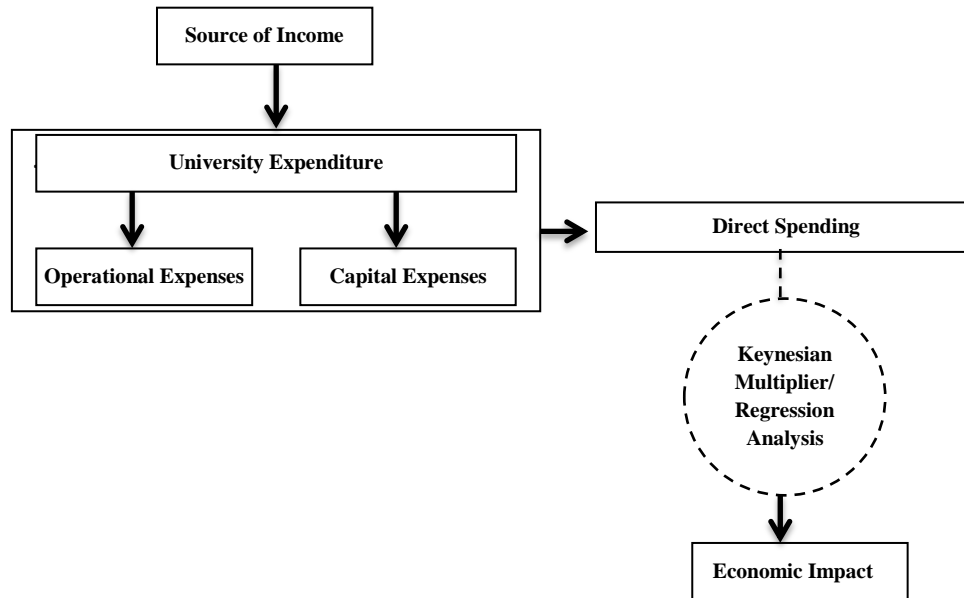
Figure 1. Research Framework

The paradigm starts with the University's efforts to attract revenue from a variety of sources. It continues as it allocates those funds in the different university-related expenditures such as university operations, capital construction, faculty and staff salaries, and wages. University operations include the purchasing of goods and services, likes contractual services payment, and buying supplies, equipment, and facilities needed for the operation. Funds are also allocated in capital construction like investing in campus improvements and expansions due to the increasing number of students and other demands for learning. Salaries and wages for faculty and staff are also considered as university-related spending. Computations for the faculty and staff expenses were not presented in this study since the researchers consider it part of the operational expenditures of the university. However, the researchers are looking at it in his further study. Direct spending activity is the first impact generated by the university. The university allots budgets for expenditure which are necessary for its operation, and capital or investment for the improvement, construction, repairs, and maintenance, purchase of machinery and other equipment to serve its purpose. The total economic impact based on this conceptual framework was calculated using two approaches. The first was through direct spending activity plus the spending multiplier based on Keynesian theory, and regression analysis that determined the coefficient that defines the estimated direct impact of spending activity of the university to the economy of the province.

Result and Discussion

This section discusses the data collected and was analyzed with the aid of SPSS Ver.22. Based on the data collected the results were arranged using the following sequence. The analysis and interpretation of data were carried out in two phases. The first part, which was based on the results of the impact per year using the Keynesian Multiplier model, deals with a quantitative analysis of data. The second part was also based on the secondary data (10-year financial statements) and the proxies (population, agricultural production, building construction industry) which were used to predict the indicators of the impact of Romblon State University's direct expenses to the economy of the province. The multiple regression analysis stepwise procedure was applied using the stepwise method for the independent variables (proxies) and independent variables (direct expenses of the University). The index was also employed to provide a comparison of data across the ten years trends included in the study.

A. Income

The income of Romblon State University is coming from different sources (see Table 1a). Since the University is a government institution much of the revenue is coming from the government subsidy, other sources of income are based on tuition fees research grants, donations, and collections from university businesses and services. Table 1a shows the income per year of Romblon State University, the income of the University are coming from the government subsidy, collections from tuition fees,

miscellaneous, business income, grants and donations, and other income receivables. (see Table 1a). Government subsidy is given by the government to the private and public industry in the form of cash or tax reduction usually to reduce its costs, and it is often considered to be in the overall interest of the public, given to promote a social good or an economic policy. Tuition fees are money collected from the students as payment to the university for their service. Miscellaneous fees particularly administrative fees usually are not tied up to enrolment. However, some are per semester hour's fees charge for workshops and certain off-campus programs. Business incomes are funds coming from the income generated in the operation of some university businesses such as the canteen, book store, and others. Grants and donations are funds granted for researches while donations are funds donated by some non-government organizations, alumni of the university and other private institutions and individuals. Other collections and receivables of the university were part of its income.

Data in the income table 1a shows that funds coming from government subsidy consistently rising from 87,730,662.01 in the fiscal year 2007 to 213,798,426.00 in the fiscal year 2016. The tuition fee hits its highest collection during the fiscal year 2015 at 78,365412.92 pesos, the lowest collection was during the fiscal year 2007 at 13,9542,759.53. The highest miscellaneous income was collected in the fiscal year 2015 with 24,408,854.21, while the lowest was during the fiscal year 2010 with a deficit amounting to 206, 866.85. Business income marked its highest collection in 2012, while the lowest was during the year 2014. Grants and donations have no contribution to the university income during the fiscal year 2007, 2008, 2009, 2011, 2012 and 2013, while 1,419,510.00 pesos was observed during 2015. Collection and receivables got its highest fund contribution in the year 2011 and lowest during the year 2015. Based on the totals, still, the different sources of income continue to increase in every fiscal year. It means that Romblon State University can spend more money. Hence, more spending coming from the university will increase the marginal propensity of consumption; more consumption would yield a greater multiplier that will accelerate the impact of the university on the economy of the province.

Table 1.a. Romblon State University income per year (2007 – 2016)

Income Category	YEAR									
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Government Subsidy	87,730,662.01	95,267,823.96	98,610,206.31	106,103,243.93	125,618,480.61	132,799,958.86	151,571,889.77	194,596,696.00	214,095,332.76	213,798,426.00
Tuition Fees	13,952,759.53	18,040,111.75	18,546,804.93	22,959,951.99	21,952,748.50	24,197,918.50	27,759,563.00	59,583,995.85	78,367,427.92	71,396,325.57
Miscellaneous Income	11,888,898.12	11,744,587.57	5,255,872.75	-206,866.85	8,720,543.07	6,287,618.89	7,126,693.00	12,386,311.55	24,408,854.21	19,286,798.46
Other Business Income	1,481,788.50	3,817,385.60	1,537,250.34	6,290,061.00	274,966.00	8,889,854.42	7,478,162.10	194,700.00	1,569,060.92	2,465,402.71
Grants & Donations	-	-	-	1,165,785.00	-	-	-	1,161,475.00	1,419,510.00	1,319,930.00
Collections and Receivables	10,966,974.18	9,025,863.51	13,484,481.85	20,208,537.29	20,818,084.98	16,826,350.14	16,025,557.64	10,391,177.57	417,437.00	497,781.50
TOTAL	**126,023,089.34**	**137,895,772.39**	**137,436,625.18**	**156,520,712.87**	**177,386,834.16**	**189,003,712.81**	**209,963,878.51**	**278,316,369.97**	**320,277,622.81**	**308,266,882.74**

Table 1b. Summary of Income for Ten Fiscal Years (2007 – 2016)

INCOME CATEGORIES	Ten Year Total Income	Percentage
Government Subsidy	1,420,192,720.21	69.56
Tuition Fees	356,757,607.54	17.47
Miscellaneous Income	106,899,310.77	5.24
Other Business Income	33,998,631.59	1.67
Grants & Donations	5,066,700.00	0.25
Collections & Receivables	118,662,245.66	5.81
TOTAL	2,041,577,215.77	100.00

Table 1b shows the income summary for ten years of operation form fiscal year 2007 to 2016 of Romblon State University. Government subsidy was the highest source of income with 1,420,192,720.21 which was 69.56% of the total ten years income of the University, the tuition fees comes second with 356,757,607.54, which was 17.47%, collection and receivables incurred 118,662,245.66, which was 5.81% of the total income, fourth was miscellaneous 106,899,310.77, which was 5.24%, followed with business income, and grants and donations with 1.67% and 0.25%, respectively. Table 1b also shows that Romblon State University, since considered as government institution rely mostly on government financial aid.

B. Operating Expenses
The cost of fulfilling the university primary mission is called the operating expenses. In Romblon State University, the operating costs are compensation and benefits, purchase of inventories, the grant of cash advances, refund of deposits, payment of account payables and other disbursements by the university.

Table 2a. Romblon State University Operating Expenditures per year (2007 – 2016)

OPERATING EXPENSES	YEAR									
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Payment of Expenses	75,315,331.69	83,767,864.09	85,965,626.75	94,637,202.25	114,092,905.83	121,252,901.98	111,772,956.97	104,792,933.79	220,639,693.85	217,015,772.73
Purchase of	3,716,610.13	6,730,516.56	2,416,685.40	5,781,761.59	12,207,816.26	10,405,862.18	14,500,425.55	27,845,424.56	7,785,459.56	5,314,990.79

Inventories										
Grant of Cash Advances	5,405,222.40	9,696,120.38	15,169,612.30	9,329,528.13	10,832,223.70	6,851,054.30	21,019,193.63	86,202,730.82	14,120,118.32	4,834,232.79
Refund of Deposits	300.00	2,675.00	100.00	13,271.10	2,410.00	600.00	31,170.89	42,500.00	-	534,439.40
Payment of Account Payables	3,018,811.40	3,599,202.13	3,464,534.14	3,840,145.71	4,590,545.24	4,838,510.26	5,231,831.80	-	3,001,089.26	295,684.33
Other Disbursements	2,142,466.86	3,523,346.84	3,131,473.41	4,839,853.71	5,504,753.32	7,147,680.99	14,415,924.90	-	12,169,844.61	13,371,043.45
Adjustments	-	132,215.50	-	-	-	-	-	8,042,598.44	15,722,807.34	22,206,800.72
Total	**89,598,742.48**	**107,451,940.50**	**110,148,032.00**	**118,441,762.49**	**147,230,654.35**	**150,496,609.71**	**166,971,503.74**	**226,926,187.61**	**273,439,012.94**	**263,572,964.21**

Table 2a shows the operating expenditures per fiscal year from 2007 to 2016 of Romblon State University. It illustrates that payment services expenses in the fiscal year 2016 were the highest expenses with 217,015,772.73 pesos, while the lowest was in 2007 with 75,315,331.69. Purchase of goods and services topped on the fiscal year 2014 with 27,845,424.56, while the lowest was in the year 2009 with 2,14,685.40. Grant of cash advances got the highest in the year 2014 with 86,202,730.82 and lowest with 4,834,232.79 during 2016. The refund of deposit reaches its highest expenses during 2014 with 42,500.00 but without expenses during 2015. The payment of account payables was 5,231,831.80 during 2013 but has no expenses in 2014. Other disbursements got high expenses during the fiscal year 2013, while no expenses made during 2014. Adjustment expenses were 22,206,800.72 during 2016 but there was nothing during 2007, 2009 until 2013.

Table 2b. Summary of Operating Expenses for Ten Fiscal Years (2007-2016)

OPERATING EXPENSES	TOTAL OPERATING EXPENSES FOR TEN FISCAL YEARS	PERCENTAGE
Payment Services	1,229,253,189.93	74.31
Purchase of Inventories	96,705,552.58	5.85
Grant of Cash Advances	183,460,036.77	11.09
Refund of Deposits	627,466.39	0.04
Payment of Account Payables	31,880,354.27	1.93
Other Disbursements	66,246,388.09	4.00
Adjustments	46,104,422.00	2.79
Total	1,654,277,410.03	100.00

Table 2b shows the summary of operating expenditures for ten fiscal years from 2007 up to 2016 of Romblon State University. The table also shows that more funds were allocated in payment of services such as compensation and benefits of employees and staff with 1,229,253,189.93 which 74.31% of the total operating expenses are spent. Next in line was the expenses coming from the grant of cash advances with 183,460,036.77 which was 11.09%, the purchase of inventories at third with 96,705,552.58 which was 5.85% followed by other disbursement with 66,246,388.09 which was 4%, sixth was adjustment of expenses with 46,104,422.00 which was 2.79%, the payment of account payables and refund of deposits with 31,880,354.27 which was 1.93% and 627,466.39 which was 0.04%, respectively. The spending totals data of the university within ten years of operation shows that in every fiscal year the spending activities operation is growing until 2015 and decrease by 10 million in 2016.

C. Capital Expenses

Capital expenditures are viewed by the researchers as expenses made by the university in terms of capital projects such as; repair and maintenance, and purchase of machinery, equipment, furniture, and fixtures. Constructions of school and office buildings purchase of machinery, equipment, and other development and improvement necessary in realizing the university's mission and vision.

Table 3a Romblon State University Capital Expenses per year (2007 – 2016)

CAPITAL EXPENSES	YEAR									
	2007	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**
Construction/ R and M- Improvements	2,075,676.13	1,562,371.60	348,854.92	953,190.26	1,195,682.50	903,445.88	391,737.69		3,053,177.00	
Construction R and M- Elect., Power and Energy Structures	27,505.00		8,555.00	8,503.00	1,200.00	6,310.00			55,065.00	
Construction /Purchase, R, and M - Furniture and Fixture	270.00	21,420.00	18,648.80		3,431.00	16,660.00	55,654.00		9,657,021.00	
Construction /Purchase, R and M - Machineries and Equipment	297,679.22	371,755.50	228,496.28	115,918.50	240,471.08	213,667.00	480,228.15	7,425,355.40		3,056,561.89
Other Maintenance Expenses	1,101,194.40	2,149,724.69	1,060,075.94	628,081.98	2,129,070.36	2,923,055.60	2,679,217.36			
Miscellaneous Expenses	43,907.77	6,855.00	11,557.00	17,751.26	70,258.52					
Totals	**3,546,232.52**	**4,112,126.79**	**1,676,187.94**	**1,723,445.00**	**3,640,113.46**	**4,063,138.48**	**3,606,837.20**	**7,425,355.40**	**12,765,263.00**	**3,056,561.89**

Table 3a shows the Romblon State University's expenses per year (fiscal years 2007- 2016). Based on the table improvements expenses were highest at 3,053,177.00 during 2015, there were no improvements done during the years 2014 and 2016. The expenses for electrical power and energy structures were high at 55,065.00 during 2015 but there were no expenses during the years 2008, 2013, 2014 and 2016. Expenses for furniture and fixtures got the highest with 55,654.00 during the fiscal year 2013

and have no expenditures during the years 2010, 2014 and 2016. Purchase, Repairs, and maintenance of machinery and equipment expenses were 480,228.15 during 2013 and there was no expense during 2015. Other maintenance expenses highest was 2,923,055.60 in 2012 while no spending activity from 2014 to 2016. Miscellaneous expenses were 70,258.52 during 2011, there were no miscellaneous expenses recorded from 2012 to 2016. It simply means that more peso was invested that yields more money that circulate in the economic environment of the province.

Table 3b Summary of Capital Expenditures for Ten Fiscal Years (2007 - 2016

CAPITAL EXPENSES	TOTAL CAPITAL EXPENSES FOR TEN FISCAL YEARS	PERCENTAGE
Construction/R&M –Improvements	10,484,135.98	22.98
Construction/R&M –Elect., Power & Energy Structures	107,138.00	0.23
Construction/R&M – Furniture & Fixtures	9,773,104.80	21.43
Construction/R&M – Machinery & Equipment	12,430,133.02	27.25
Other Maintenance	12,670,420.33	27.78
Miscellaneous	150,329.55	0.33
TOTAL	45,615,261.68	100.00

 Table 3b shows the summary of capital expenses for ten fiscal years of Romblon State University. Other maintenance expenses topped the list with 12,670,420.33 which was 27.78% capital expenses in totality. Second, construction/Repair and maintenance of machinery and equipment with 12,430,133.02 which was 27.25%, third, construction/ repair, and maintenance – improvements with 10,484,135.98 which was 22.98%, fourth, construction/ repair and maintenance – furniture and fixture with 9,773,104.80 which was 21.43%, fifth, miscellaneous with 150,329.55 which was 0.33%, and construction/ repair and maintenance- electricity, power, and energy structures with 107,138.00 which was 0.23% of the total capital expenses for ten fiscal years.

D. Total Income, Total Expenses, and Leakages

 In this study, a leakage was defined as the non-consumption uses of income. The researcher considers excess of income over expenses, travel allowances, depreciation of machinery, buildings, equipment, and others. Also, included are insurance, taxes, scholarship expenses and other expenses made by the university but were spent outside the province.

Table 4. Romblon State University's Total Income, Expenses & Leakages

Years	Total Income	Total Expenses (MPS)	Leakages (MPS)
2007	126,023,089.34	89,598,742.48	36,424,346.86
2008	137,895,772.39	107,451,940.50	30,443,831.89
2009	137,436,625.18	110,148,032.00	27,288,593.18
2010	156,520,712.87	118,441,762.49	38,078,950.38
2011	177,386,834.16	147,230,654.35	30,156,179.81
2012	189,003,712.81	150,496,609.71	38,507,103.10
2013	209,963,878.51	166,971,503.74	42,992,374.77
2014	278,316,369.97	226,926,187.61	51,390,182.36
2015	320,277,622.81	273,439,012.94	46,838,609.87
2016	308,266,882.74	263,572,964.21	44,693,918.53

Table 4 shows the Romblon State University's annual total income, expenses, and leakages. The table also shows that the highest leakage happens during the fiscal year 2014 with 51,390,182.36 pesos, while the lowest was during 2009 with 27,288,593.18. It shows also that in every year of operation the Romblon State University spent more than a hundred million pesos except in 2007 wherein the university expenses were only 89,598,742.48pesos. The expenses on this table were computed as total operational expenditures per year plus total capital expenses per year. Leakage in this study refers to the excess to income after expenses and expenses incurred by the university outside the province of Romblon. Hence, excess to income and expenditures outside the province of Romblon made by Romblon State University does not create an economic impact in the province of Romblon.

E. Direct Expenditures Impact per Fiscal Years (2007 – 2016)

The impact per fiscal year was computed as total expenses per year or the marginal propensity to consume multiplied by the spending multiplier based on Keynesian theory. Table 5 below shows that in 2007 the total expenses (MPC) were 93,144,975.00 the spending multiplier applied was 3, since, the total expenses divided by the total income yielded 0.7 which is the MPC, while leakages divided by the total income will determine the MPS which is 0.3. Applying the formula; (**Spending Multiplier = 1/MPS),**

$$\text{Spending Multiplier} = \frac{1 \times 10}{.3 \times 10} = \frac{10}{3} = 3$$

 The same formula has been applied to the remaining data the results were accelerated total spending of Romblon State University which impacts the economy of the Romblon province.

Table 5. Romblon State University's Expenditure Impact per Year

YEARS	TOTAL EXPENSES (MPC)	SPENDING MULTIPLIER	IMPACT per YEAR
2007	89,598,742.48	3	258,966,487.13
2008	107,451,940.50	2	237,226,185.85
2009	110,148,032.00	2	218,703,335.51
2010	118,441,762.49	2	288,149,594.65
2011	147,230,654.35	2	250,295,581.81
2012	150,496,609.71	2	306,617,705.03
2013	166,971,503.74	2	341,892,210.97
2014	226,926,187.61	2	419,011,578.97
2015	273,439,012.94	1	399,887,545.62
2016	263,572,964.21	1	382,139,932.92
Total Impact in ten years			3,102,890,158.45

Table 5 shows that the highest economic impact happens during the fiscal year 2015 with 2,862,042,759.40, where the marginal propensity to consume was at the highest with 286,204,275.94 and the spending multiplier was 10. The lowest was during the fiscal year 2007 with 279,434,925 pesos, where the marginal propensity to consume was at the lowest with 93,144,975 pesos and the spending multiplier was at the lowest with only 3. Looking at the data simply means that, more expenses coming from Romblon State University, yields greater spending multiplier that create more impact on the economy of the Romblon province.

F. Proxy

Gross Domestic Products are the bases of most impact studies. However, in the Philippines, the GDP applies only to regional or national settings as an indicator of the economy. In this case, the researcher used proxies to estimate the impact of the University's direct expenses. The total population, agricultural production, and building constructed per year were among the independent variables used. The researchers assumed that the expenses made by Romblon State University have an impact on the above independent variables.

    a. **Population**

Table 6. Total Population of Romblon per year (2007 – 2016)

Year	Population
2007	279,774
2008	281,159
2009	282,544
2010	283,930
2011	285,700
2012	287,470
2013	289,241
2014	291,011
2015	292,781
2016	294,994

Table 6 illustrate the population of Romblon province per year from 2007 to 2016. The population of Romblon was 279,774 persons as of August 1, 2007, based on the 2007 Census of Population. This figure was higher by 15,417 persons over the population count of 264,357 persons in 2000. The population count of the province for the 2000 and 2007 censuses translated to an average annual population growth rate of 0.78 percent. In 2010 it reaches a total of 283,930 as of May 1, 2010. This is larger by 19,573 persons compared to its total population of 264,357 persons counted in 2000. The increase in the population count from 2000 to 2010 translated to an average annual population growth rate (PGR) of 0.72 percent. According to the 2015 census, it has a total population of 292,781. The researchers assume that in 2016 the population reaches 294,994 bases on the 0.72 PGR.

    b. **Agricultural Production**

Table 7. Agricultural Production (Palay, Coconut, Banana) MT

YEAR	AGRICULTURAL PRODUCTION
2007	251,313
2008	254,169
2009	273,034
2010	262,363
2011	265,649
2012	273,807
2013	269,538
2014	255,090
2015	263,224
2016	256,643

Table 7 shows the annual agricultural production of Romblon State University. The province of Romblon's economy is an agricultural-based, with vast productive farmlands, among its major products were palay, coconut, and banana. In 2007 the province cropped 251,313 metric tons of its agricultural products. It increases until 2009 with 273,034 metric tons. It slightly decreased in two succeeding years 2010 and 2011 with 273,034 and 265,649 respectively. It improved in 2012 with 273,807 metric tons and the highest recorded in ten years since 2007. The lowest was 255,090 during the year 2014.

The researcher presumed that the expense made by the University affects the agricultural production of the province.

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c. Building Construction

Construction is a significant contributor to the province of Romblon. This industry plays a critical role in Romblon employment, wages and contribution to Gross Domestic Product of the MIMAROPA region. This analysis supports the conclusion that construction is one of the important indicators of economic impact.

Table 8. Private Building Constructed per Year from 2007 to 2016

Year	Building Constructed
2007	234
2008	201
2009	209
2010	320
2011	362
2012	298
2013	337
2014	404
2015	376
2016	264

Table 8 shows the number of buildings constructed per year from 2007 to 2016. Romblon's economy is growing every year. Small, medium and large enterprises emerged rapidly as proof of the development of the province. The data shows that the highest numbers of buildings were constructed in the year 2014 with 404. The lowest was in 2008 with only 201. The researcher perceived that the expense made by the University affects the progress of the province through the construction industry.

Regression Analysis

To test the hypothesis of the study the researcher used SPSS application and to determine the model used and to pick out from the independent variables the potential explanatory factors or so-called predictors that significantly contribute to the dependent variables.in predicting the impact of each spending variables.

The multiple regression analysis was utilized using the stepwise method to pick out from the independent variables the potential explanatory factors or so-called predictors that significantly contribute to the dependent variable. In this study the dependent variables are the proxies such as; population, agricultural production, and building construction industry represented by **(y)**, while the independent variables are consists of the operational and capital expenses such as; payment of services **(x_1)**, purchase of inventories **(x_2)**, grant of cash advances **(x_3)**, refund of deposits **(x_4)**, payment of account payables **(x_5)**, other disbursement **(x_6)**, improvements **(x_7)**, repair and maintenance-electric power and energy structures **(x_8)**, repair and maintenance-furniture and fixtures **(x_9)**, repair and maintenance-machineries and equipment **(x_{10})**, other maintenance **(x_{11})**, and miscellaneous **(x_{12})**.

Table 9. Identified Predictors of Proxies from the Multiple Regression Analysis

Dependent Variables	Predictors	Regression Equation	Adjusted R^2
Population	Payment of Services	$\hat{Y} = 276719.328 + .848x_1$	0.684
	Payment of Services, Purchase of Inventories	$\hat{Y} = 273264.351 + 0.878x_1 + 0464x_2$	0.915
	Payment of Services, Purchase of Inventories, Construction/ R & M- Improvements	$\hat{Y} = 274727.822 + 0.916x_1 + 0.379x_2 - 0.244x_7$	0.976
Building Constructed	Payment of Services	$\hat{Y} = 232.031 + .735x_1$	0.483

Population. Identifying the predictors of the population was by determining the correlation analysis to determine the extent of the relationship between the dependent variables. As shown in Appendix A, the population has positively correlated with payment service and other disbursements. Entering all the independent variables in regression analysis, the payment of services, purchase of inventories, construction/ R &M- improvements were identified as predictors of population. The regression equation that can be used in predicting population was given by

Model 1: $\hat{Y} = 276719.328 + .848x_1$

Model 2: $\hat{Y} = 273264.351 + 0.878x_1 + 0464x_2$

Model 3: $\hat{Y} = 274727.822 + 0.916x_1 + 0.379x_2 - 0.244x_7$

For Model 1, measuring the proportion of variance of the population about its mean that was explained by Payment of services, the coefficient of determination was computed and had a value of .719. However, the adjusted coefficient of determination was computed to measure the explanatory power of the predictor to find whether it is statistically significant. The first model had the adjusted coefficient of determination (R^2) of .684. The result implied that 68.4% of the variation in the population can be explained by the payment of services.

For Model 2, measuring the proportion of variance of the population about its mean that was explained by Payment of services and purchase of inventories, the coefficient of determination was computed and had a value of .934. However, the adjusted

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coefficient of determination was computed to measure the explanatory power of the predictor to find whether it is statistically significant. The second model had the adjusted coefficient of determination (R^2) of .915. The result implied that 91.5% of the variation in the population can be explained by the payment of services and purchase of inventories.

For the Model 3, measuring the proportion of variance of the population about it's mean that was explained by payment of services, purchase of inventories and construction/ R and M- improvements, the coefficient of determination was computed and had a value of .983. However, the adjusted coefficient of determination was computed to measure the explanatory power of the predictor to find whether it is statistically significant. The third model had the adjusted coefficient of determination (R^2) of .984. The result implied that 98.4% of the variation in the population can be explained by the payment of services, purchase of inventories and construction/ R and M- improvements.

Building Constructed. As shown in Appendix A, the population has a positively correlated with payment service and another disbursement. Entering all the independent variables in regression analysis, the payment of services, purchase of inventories, construction/ R &M- improvements were identified as predictors of population. The regression equation that can be used in predicting Building constructed was given by

Model 1: $\hat{Y} = 232.031 + .735x_1$

Model 1, measuring the proportion of variance of the building constructed about its mean that was explained by payment of services, the coefficient of determination was computed and had a value of .540. However, the adjusted coefficient of determination was computed to measure the explanatory power of the predictor to find whether it is statistically significant. The first model had the adjusted coefficient of determination (R^2) of .483. The result implied that 48.3% of the variation in the population can be explained by the payment of services.

Indexes of Proxy

Index numbers are a useful way of expressing economic data time series and comparing/contrasting information. An index number is a figure reflecting price or quantity compared with a base value. The base value always has an index number of 100. The index number is then expressed as 100 times the ratio to the base value.

Formula; **Index N = Current Value/ Base Year x 100,** where **index N** is the index value, **Current Value** is the value compared with the base value and **Base Year** is the initial value.

In this study, the base value in computing the index used was the value indicated in 2007 of every proxy. Each annual number of populations, agricultural productions, and building construction were divided by the base value that yielded the index per year. The total index average per year was figured by computing the mean of each proxy.

a. *Population Index*

Table 10. Population Index

Year	Population	Change (%)	Index Number
2007	279,774	Base Year	100.00
2008	281,159	.50	100.50
2009	282,544	.99	100.99
2010	283,930	1.49	101.49
2011	285,700	2.12	102.12
2012	287,470	2.75	102.75
2013	289,241	3.38	103.38
2014	291,011	4.02	104.02
2015	292,781	4.65	104.65
2016	294,994	5.44	105.44
Total Index for 10 years			**102.53**

Table 10 illustrates the index for the population of Romblon Province for ten years from 2007 to 2016. It shows that the total annual population of the province continues to increase every year. In 2008, 281,159 population were recorded with an index number of 100.50, which means that during the 2008 population increased by .50% from the base year of 2007. The highest index number was 105.44 during 2016 having a population of 294,994, with 15,220 more than the total population in 2007. It means that an increase of 5.44 percent was observed in 2016 from the base year of 2007. The total average index of the population for ten years of Romblon was 102.53 which means that the population continues to increase by an average of 2.53 percent per year within the ten years data covered by this study.

b. *Agricultural Production Index*

Table 11 Agricultural Production Index

Year	Agricultural Production (MT)	Change (%)	Index
2007	251,313	Base year	100.00
2008	254,169	1.13	101.13
2009	273,034	8.50	108.50
2010	262,363	4.23	104.23
2011	265,649	5.63	105.63
2012	273,807	8.85	108.85
2013	269,538	7.16	107.16
2014	255,090	1.41	101.41

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2015	263,224	4.61	104.61
2016	256,643	1.81	101.81
Total Index for 10 years			**104.33**

Table 11 shows the annual indexes for agricultural production for ten years from 2007 to 2016. The highest index number was 108.85 in 2012 with an 8.85 percent increase in agricultural production from the base year 2007. The table shows the increase and decreases in production for ten years within the data covered by the study. The lowest index number was 101.13 in 2008 with an increase of 1.13% from the base year of 2007. Overall, agricultural production continues to increase per year based on the base year of 2007 as shown on the table, considering rice, coconut and banana productions. The average index was computed by adding all the annual index numbers divided by the number of years. The total average index number for ten years of agricultural production was 104.33 which means that for ten years agricultural production increases for an average of 4.33 percent.

    c.   *Building Construction Industry Index*

Table 12. Building Construction Industry Index

Year	Building Constructed	Change (%)	Index
2007	234	Base Year	100.00
2008	201	-14.10	85.90
2009	209	-10.68	89.32
2010	320	36.75	136.75
2011	362	54.70	154.70
2012	298	27.35	127.35
2013	337	44.02	144.02
2014	404	72.65	172.65
2015	376	60.68	160.68
2016	264	12.82	112.82
Total Index for 10 years			**141.26**

Table 12 shows the number of building constructed for ten years and the index per year. It also so shows that more than 200 buildings up to 400 buildings were constructed within ten years from 2007 to 2016. In 2009, 201 buildings were built with an index number of 85.90 it means that building construction industry decreased by 14.10 percent from the base year of 2007. Although in 2009 building constructed total was 209, which was 8 buildings more than 2008 with only 201 buildings constructed, still, a decrease of 10.68 percent was seen when compared from the base year 2007. The highest number of buildings constructed was during 2014 with 404 with an index number of 172.65, which means that an increase of 72.65 percent from the base year 2007 was observed. Moreover, the mean index number for building the construction industry for ten years in the province of Romblon was 141.26, which means that for ten years between 2007 and 2016 a 41.26 percent average in building construction industry was observed.

Composite Index

 To provide a useful statistical measure of overall proxies' performance the researcher formed a composite index. A composite index was constructed based on the shares of proxies' indexes to produce a broad measure and a convenient way to evaluate the performance of underlying indexes.

Table 13. Composite index

Year	Population Index	Agricultural Index	Building Construction Index	Composite Index Number
2007	100	100	100	100.00
2008	100.5	101.13	85.9	93.52
2009	100.99	108.5	89.32	98.91
2010	101.49	104.23	136.75	120.49
2011	102.12	105.63	154.7	130.17
2012	102.75	108.85	127.35	118.10
2013	103.38	107.16	144.02	125.59
2014	104.02	101.41	172.65	137.03
2015	104.65	104.61	160.68	132.65
2016	105.44	101.81	112.82	107.32

Table 13 shows the composite indexes of three proxies. The composite index was computed by summing up index numbers of each economic proxies divided by the number of proxies. When combined, it produced a yearly average index. The table shows that during 2008 the composite index number of population, agricultural production, and building construction industry was 93.5, it means that the performance of the market during 2008 has the least impact on the index. On the other hand, the highest was in 2015 with 137. 03 composite index number which means that the performance of economic indicator during 2015 have the most influence on the index within the ten years covered by this study.

Table 14. Change in composite index per year

Year	Change (%)	Composite Index
2007	Base Year	100.00
2008	-6.48	93.52

2009	-1.09	98.91
2010	20.49	120.49
2011	30.17	130.17
2012	18.10	118.10
2013	25.59	125.59
2014	37.03	137.03
2015	32.65	132.65
2016	7.32	107.32

Table 14 shows the change in the composite index per year from 2007 to 2016. The impact of economic indicators fell by 6.48% and 1.09 percent during 2008 and 2009, respectively. The table also shows that the least impact of the economic indicator was during 2008 with only 93.53 composite indexes from the combine indexes of proxies. While the highest influence on the index was felt in 2014 with a37.03 composite index. An increase of 37.03 percent was established in 2014.

Regression Analysis

Table 15. Identified Predictors of Proxies Indices from the Multiple Regression Analysis

Dependent Variables	Predictors	Regression Equation	Adjusted R^2
Population index	Payment of Services	$\hat{Y} = 98.911 + .848x_1$	0.684
	Payment of Services, Purchase of Inventories	$\hat{Y} = 97.675 + 0.878x_1 + 0.464x_2$	0.915
	Payment of Services, Purchase of Inventories, and Construction/ R and M- Improvements	$\hat{Y} = 98.198 + 0.916x_1 + 0.379x_2 - 0.244x_7$	0.977
Agricultural Production Index	Payment of Account Payable	$\hat{Y} = 100.693 + 6.33x_5$	0.329
Building Constructed Index	Purchase of Inventories	$\hat{Y} = 99.159 + .735x_2$	0.540
Composite Index Per Year	Purchase of Inventories	$\hat{Y} = 101.915 + .715x_2$	0.451

Population Index. Identifying the predictors of the population index was by determining the correlation analysis to determine the extent of the relationship between the dependent variables. As shown in Appendix A, the population has positively correlated with payment services and other disbursements. Entering all the independent variables in regression analysis, the payment of services, purchase of inventories, construction/ R &M- improvements were identified as predictors of population. The regression equation that can be used in predicting population was given by

Model 1: $\hat{Y} = 98.911 + .848x_1$

Model 2 $\hat{Y} = 97.675 + 0.878x_1 + 0.464x_2$

Model 3: $\hat{Y} = 98.198 + 0.916x_1 + 0.379x_2 - 0.244x_7$

For Model 1, measuring the proportion of variance of the population index about its mean that was explained by payment of services, the coefficient of determination was computed and had a value of .719. However, the adjusted coefficient of determination was computed to measure the explanatory power of the predictor to find whether it is statistically significant. The first model had the adjusted coefficient of determination (R^2) of .684. The result implied that 68.4% of the variation in the population index can be explained by the payment of services.

For Model 2, measuring the proportion of variance of the population about its mean that was explained by Payment of services and purchase of inventories, the coefficient of determination was computed and had a value of .934. However, the adjusted coefficient of determination was computed to measure the explanatory power of the predictor to find whether it is statistically significant. The second model had the adjusted coefficient of determination (R^2) of .915. The result implied that 91.5% of the variation in the population can be explained by the payment of services and purchase of inventories.

For the Model 3, measuring the proportion of variance of the population index about its mean that was explained by payment of services, purchase of inventories and construction/ R and M- improvements, the coefficient of determination was computed and had a value of .983. However, the adjusted coefficient of determination was computed to measure the explanatory power of the predictor to find whether it is statistically significant. The third model had the adjusted coefficient of determination (R^2) of .977. The result implied that 97.7% of the variation in the population index can be explained by the payment of services, purchase of inventories and construction/ R and M- improvements.

Agricultural Production Index. As shown in Appendix A, the population has positively correlated with purchase inventories. Entering all the independent variables in regression analysis, the purchase of inventories was identified as predictors of the agricultural production index. The regression equation that can be used in predicting agricultural production index was given by

Model 1: $\hat{Y} = 100.693 + 6.33x_5$

Model 1, measuring the proportion of variance of the agricultural production index about its mean that was explained by purchase inventories, the coefficient of determination was computed and had a value of .326. However, the adjusted coefficient of determination was computed to measure the explanatory power of the predictor to find whether it is statistically significant.

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The first model had the adjusted coefficient of determination (R^2) of .329. The result implied that 32.9% of the variation in the agricultural production index can be explained by the purchase inventories.

Building Constructed Index. As shown in Appendix A, the building constructed index has a positively correlated with purchase inventories. Entering all the independent variables in regression analysis, the purchase of inventories was identified as predictors of building a constructed index. The regression equation that can be used in predicting building constructed index was given by

Model 1: $\hat{Y} = 99.159 + .735x_2$

Model 1, measuring the proportion of variance of the building constructed index about its mean that was explained by purchase inventories, the coefficient of determination was computed and had a value of .540. However, the adjusted coefficient of determination was computed to measure the explanatory power of the predictor to find whether it is statistically significant. The first model had the adjusted coefficient of determination (R^2) of .483. The result implied that 48.3% of the variation in building constructed index can be explained by the purchase inventories.

Composite Index Per Year. As shown in Appendix A, the composite index per year has positively correlated with purchase inventories. Entering all the independent variables in regression analysis, the purchase of inventories was identified as predictors of composite index per year. The regression equation that can be used in predicting building constructed index was given by

Model 1: $\hat{Y} = 101.915 + .715x_2$

Model 1, measuring the proportion of variance of the composite index per year about its mean that was explained by purchase inventories, the coefficient of determination was computed and had a value of .512. However, the adjusted coefficient of determination was computed to measure the explanatory power of the predictor to find whether it is statistically significant. The first model had the adjusted coefficient of determination (R^2) of .451. The result implied that 45.1% of the variation in composite index per year can be explained by the purchase inventories.

Conclusions

This study at hand was designed to estimate the economic impact of Romblon State University using a direct expenditures analysis. The following conclusion was drawn out of the analysis took:

The funds of Romblon State University were coming government subsidy which is the highest source of fund, the second was the collection of tuition fees, miscellaneous fees, business income, grants and donations, and other collections and receivables. Further, the findings showed that the university greatly relied on the government subsidy for its major funding

The Romblon State University from the period of fiscal years 2007 to 2016 allocated funds for its operational expenditures as payment for services, purchase of inventories, the grant of cash advances, refund of deposits, payment of accounts payables, and other disbursements. The findings revealed that the university operational spent largely on the payment of services through compensations, bonuses and other benefits of its faculty members and staff. The total operational expenditures of the university continued to increase from 2007 up to 2015 while in 2016 hits approximately ten million lower than in 2015. However, the overall operational expenses within ten years of university operation found to have a great impact on the economy of the province.

On the other hand, the findings for capital expenditures reveals that Romblon State University allocated its funds lower than the operational expenses. Findings showed that capital expenditures were allotted for improvements, constructions, purchases and repairs and maintenance of the university's buildings, machinery and equipment. Further, the finding disclosed that the highest capital expenses within ten fiscal years 2007 to 2016 were on the maintenance of buildings, machinery, and equipment of the university.

By applying the Keynesian theory of spending multiplier the multiplier was defined; the Romblon State University greatly impact the economy of the province of Romblon in every fiscal year from 2007 to 2016. Moreover, more expenses that the university contributed to the economic activity of the province yield more impact and helps improve the economic status of the Romblon province.

The models and coefficient that defines the impact of Romblon State University's direct expenditures impact the economy of Romblon province.

> **In population**, as economic indicator three models where developed,
> - **Model 1:** $\hat{Y} = 98.911 + .848x_1$);
> - **Model 2:** $\hat{Y} = 97.675 + 0.878x_1 + 0.464x_2$
> - **Model 3:** $\hat{Y} = 98.198 + 0.916x_1 + 0.379x_2 - 0.244x_7$

Model 1, 2 and 3, can be used as models in determining the coefficient that defines the impact. However, model 3 can be the best use since it has two independent indicators to the dependent variable. Model 3 further describes that in ten years from 2007 to 2016, as the population (dependent variable) increases, independent variables which were the RSU expenditures such as; payment for services (x_1) and purchase of inventories(x_2) increases and Construction/ R and M- Improvements (X_5) decreases also. This indicates that the increased payment for services and purchase of inventories(x_2) and decrease in Construction/ R and M- Improvements predicts the impact on the economy of the province in terms of population.

In Agricultural Production as an economic indicator, a model was determined.

- **Model 1:** $\hat{Y} = 100.693 + 6.33x_5$

Agricultural Production can be predicted by payment of account payables (x_5). It also indicates that the payment of account payables as expenses coming from RSU predicts the impact on the economy of the province as far as agricultural production is a concern.

In, Building Construction Industry as an economic indicator define another model;

- **Model 1:** $\hat{Y} = 99.159 + .735x_2$

The Building Construction Industry can be predicted by the purchase of inventories (x_2). It shows that as the Building Construction Industry increases in the province of Romblon, the predictor (purchase of inventories) also increases. It also indicates that the purchase of inventories RSU expenses predicts the impact on the economy of the province as far as Building Construction Industry is a concern.

Lastly, Impact of Romblon State University towards the Economy of Romblon province

- Model 1: $\hat{Y} = 101.915 + .715x_2$

The composite index created in this study shows that the purchase of inventories (x_2), predicts the impact of Romblon State University on the economy of Romblon province.

The indices that were created shows the yearly amount and percentage of increased and decreased economic indicator. It also described the influence of every proxy used to the economy of the province. The composite index created in this study shows the highest and lowest influences of the indicators in the provincial economy during the year 2007 to 2016.

Appendix A
Table of Correlation Across All Predictors

Population		
	Payment of Services	.848**
	Purchase of Inventories	.408
	Grant of Cash Advances	.300
	Refund of Deposits	.592
	Payment of Account Payables	-.465
Pearson Correlation	Other Disbursements	.648*
	Construction/ R and; M- Improvements	-.218
	Construction R and; M- Elect., Power and Energy Structures	.088
	Construction /Purchase, R and; M - Furniture, and Fixture	.407
	Construction /Purchase, R and; M - Machineries and Equipment	.472
	Other Maintenance Expenses	-.398
	Miscellaneous Expenses	-.487
Agricultural Production		
	Payment of Services	.001
	Purchase of Inventories	-.084
	Grant of Cash Advances	-.214
	Refund of Deposits	-.268
	Payment of Account Payables	.619
Pearson Correlation	Other Disbursements	.303
	Construction/ R and; M- Improvements	-.193
	Construction R and M- Elect., Power and Energy Structures	-.079
	Construction /Purchase, R and; M - Furniture, and Fixture	.035
	Construction /Purchase, R and M - Machineries and Equipment	-.413
	Other Maintenance Expenses	.484
	Miscellaneous Expenses	-.119
Building Constructed		
	Payment of Services	.326
	Purchase of Inventories	.735*
	Grant of Cash Advances	.556
	Refund of Deposits	-.130
	Payment of Account Payables	-.109
Pearson Correlation	Other Disbursements	.183
	Construction/ R and M- Improvements	.015
	Construction R and M- Elect., Power & Energy Structures	.155
	Construction /Purchase, and; M - Furniture and; Fixture	.371
	Construction /Purchase, and; M - Machineries and Equipment	.406
	Other Maintenance Expenses	-.207
	Miscellaneous Expenses	.000
Population Index		
	Payment of Services	.848**
Pearson Correlation	Purchase of Inventories	.409
	Grant of Cash Advances	.300
	Refund of Deposits	.592

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	Payment of Account Payables	-.466
	Other Disbursements	.648[*]
	Construction/ R & M- Improvements	-.217
	Construction R & M- Elect., Power and Energy Structures	.088
	Construction /Purchase, R and; M - Furniture, and Fixture	.407
	Construction /Purchase, R and; M - Machineries and Equipment	.473
	Other Maintenance Expenses	-.399
	Miscellaneous Expenses	-.487
Agricultural Production index		
Pearson Correlation	Payment of Services	-.018
	Purchase of Inventories	-.080
	Grant of Cash Advances	-.212
	Refund of Deposits	-.291
	Payment of Account Payables	.633[*]
	Other Disbursements	.290
	Construction/ R and M- Improvements	-.181
	Construction R and M- Elect., Power and Energy Structures	-.077
	Construction /Purchase, R and; M - Furniture, and Fixture	.033
	Construction /Purchase, R and; M - Machineries and Equipment	-.420
	Other Maintenance Expenses	.499
	Miscellaneous Expenses	-.109
Building Constructed index		
Pearson Correlation	Payment of Services	.326
	Purchase of Inventories	.735[*]
	Grant of Cash Advances	.556
	Refund of Deposits	-.130
	Payment of Account Payables	-.109
	Other Disbursements	.183
	Construction/ R and M- Improvements	.015
	Construction R and M- Elect., Power and; Energy Structures	.155
	Construction /Purchase, R and M - Furniture and; Fixture	.371
	Construction /Purchase, R and; M - Machineries and Equipment	.406
	Other Maintenance Expenses	-.206
	Miscellaneous Expenses	.000
Composite index Number		
Pearson Correlation	Payment of Services	.319
	Purchase of Inventories	.715[*]
	Grant of Cash Advances	.525
	Refund of Deposits	-.157
	Payment of Account Payables	-.042
	Other Disbursements	.210
	Construction/ R and M- Improvements	-.004
	Construction R and M- Elect., Power & Energy Structures	.145
	Construction /Purchase, R, and M - Furniture and Fixture	.369
	Construction /Purchase, R and M - Machineries and Equipment	.357
	Other Maintenance Expenses	-.152
	Miscellaneous Expenses	-.011

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