

Market Study and Economic Sustainability Analysis for City College of Angeles 2020 - 2025: Prospects and Challenges

Jean Paolo G. Lacap¹, Antonieta P. Tungcab², Joshua R. de Guia³, Ma. Cheriza D. Cunan⁴, Lessandro T. Yuzon⁵

¹*Vice President for Research and Extension, City College of Angeles, Angeles City, Philippines*

²*Faculty Member, Institute of Business and Management, City College of Angeles, Angeles City, Philippines*

³*Head, Budget and Finance Office, City College of Angeles, Angeles City, Philippines*

⁴*Head, Human Resource Management Office, City College of Angeles, Angeles City, Philippines*

⁵*Head, Office of the College Registrar, City College of Angeles, Angeles City, Philippines*

The present study assesses the marketing environment and economic sustainability of City College of Angeles (CCA), Angeles City, Philippines. The study utilized documentary analysis as a tool to examine the factors affecting the survival and sustainability of CCA as an academic institution. Moreover, linear regression analysis was used to measure the different numerical projections. The findings reveal that the number of students of CCA was continuously rising but the annual budget remains almost the same from 2016 to 2019. The economic sustainability analysis indicates that the increase in the number of enrollees for AY 2020-2021 to 2024-2024 requires additional number of teaching and non-teaching personnel (plantilla and contract of service) as reflected in the results of linear regression tests. Prospects and challenges were also included in the undertaking.

Keywords: *higher education institution, local college, local government unit, CCA, market study, economic sustainability analysis*

Introduction

The City College of Angeles (CCA) is a higher education institution, particularly a local college run by the local government unit (LGU) of Angeles City. The institution opened its door on June 5, 2012 with an aim of overcoming poverty through holistic development of students' knowledge and skill through affordable yet top-quality education (Pamintuan, 2010).

From the onset, one of the primary goals of the institution is to respond to market demands. The strategic location of Angeles City is a key factor where the institution can supply the necessary manpower needs and requirements of the various business enterprises and firms in the city and of the Clark Freeport Zone. The establishment of CCA is a clear manifestation of the priority of the LGU of Angeles City, which is education.

Vision

An Institution of hope and a premier local college in the country.

Mission

City College of Angeles is committed to offer quality education for the holistic development of competitive and technically capable professionals with deep sense of excellence, resiliency, stewardship, and patrimony.

Core Values

Excellence, Stewardship, Resiliency, and Patrimony.

Goals and Objectives

1. To provide degree and non-degree programs that are relevant to local and global demands and are in compliance with quality standards in education
2. To strengthen the natural capability of the College through continuous benchmarking, program evaluation, innovation, and professional development of the administrators, faculty and staff
3. To develop networks and linkages with local and international institutions to ensure quality education
4. To produce research which will contribute to the efficient and effective management of the institution and to serve the community better
5. To develop and strengthen the moral values of administrators, faculty, staff and students
6. To develop a positive image of corporate social responsibility that will benefit the community
7. To serve as an active agent for the cultivation, promotion, preservation and appreciation of Kapampangan arts, culture and heritage

There are several factors that may affect the operation and performance of any organization. Same is true in the academia. Higher education institutions (HEIs) are also affected by numerous factors that can impact their survival. Thus, it is vital to continuously analyze the internal and external influences that surround the milieu of the HEIs.

The present study has two-fold objectives: to scrutinize the market situation and to measure the financial/economic sustainability of CCA. A documentary analysis was used to assess the market situation and financial viability of the College.

Market Situation Analysis

As of August 2019, there have been 2,393 higher education institutions in the Philippines (including satellite campuses of SUCs) and the share of local universities and colleges (LUCs) is at 4.93%.

Table 1. Number of Higher Education Institutions in the Philippines

Institution Type	Excluding SUC Satellite Campuses	Including SUC Satellite Campuses
State Universities and Colleges (SUCs)	111	541
Local Colleges and Universities (LCUs)	118	118
Other Government Schools (OGS, CSI, Special HEIs)	13	13
Private Higher Education Institution	1,721	1,721
Total	1,963	2,393

Source: Commission on Higher Education (as of August 8, 2019)

Table 2 presents the distribution of HEIs per region. Central Luzon has a share of 10% or 239 HEIs out of 2,393. National Capital Region or NCR has the highest share at 14.5% while Cordillera Administrative Region or CAR has the least share at 2.26%.

Table 2. Distribution of HEIs Per Region

Institution Type	Excluding SUC Satellite Campuses	Including SUC Satellite Campuses
01 – Ilocos Region	92	113
02 – Cagayan Valley	53	73
03 – Central Luzon	200	239
04 – CALABARZON	282	338
05 – Bicol Region	146	170
06 – Western Visayas	101	155
07 – Central Visayas	142	165
08 – Eastern Visayas	63	89
09 – Zamboanga Peninsula	63	85
10 – Northern Mindanao	83	114
11 – Davao Region	88	98
12 – Soccsksargen	100	114
13 – Nat. Capital Region	339	347
14 – Cordillera Adm. Region	40	54
15 – Bangsamoro Autonomous Region of Muslim Mindanao	79	93
16 – Caraga	44	55
17 – MIMAROPA	48	91
Total	1,963	2,393

Source: Commission on Higher Education (As of August 8, 2019)

In Angeles City, the well-known colleges and universities are the following: Holy Angel University (HAU), Angeles University Foundation (AUF), Republic Central Colleges (RCC), Systems Plus College Foundation (SPCF), AMA Computer College, STI College, and City College of Angeles.

In the last seven (7) years, CCA has been committed in providing quality, responsive, and relevant tertiary education to the young people of Angeles. Figure 1 shows that from its initial operation, CCA has seen a steady increase in the number of enrollees. Despite the implementation of the K-12 program of the government, the number of students remained high at 2662 for the 1st semester academic year 2019-2020.

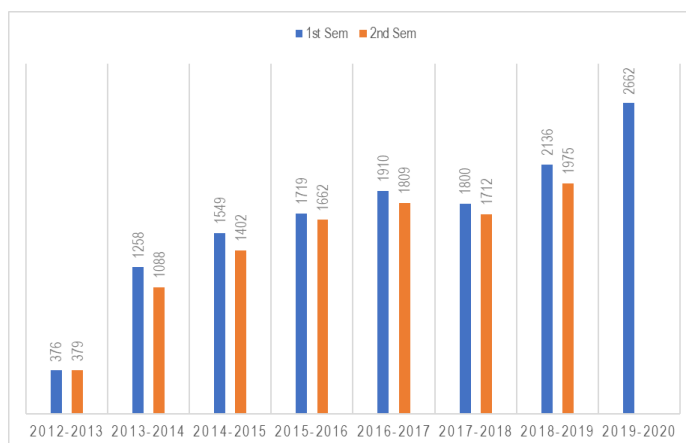


Figure 1. Enrolment Data of CCA from AY 2012-2013 to 1st Sem 2019-2020

CCA Target Market

In order to identify the target market of CCA, segmenting the market, identifying the target, and establishing the position strategy of the institution must be in place. Based on the STP (Segment-Target-Position) strategy of CCA, Table 3 characterizes the target market.

Fundamentally, the target markets of CCA are 15-25 years old high school or senior high school graduates of Angeles City who are looking for a tertiary institution that offers affordable and quality education. Majority of them belong to socio-economic classes D and E and few are in class C. They are characterized by simple lifestyle but are family oriented and they have the drive to finish their education to help their families. They are sensitive to price which is reflected in their elastic demand to goods and services. They are aware of technology and social media, but their consumption of technological products and services are much lower compared to those students enrolled in private HEIs.

Table 3. CCA’s STP Strategy

SEGMENTATION			
Demographics	Geographic	Psychographics	Behavioral
<ul style="list-style-type: none"> • Male & Female • 15 years old – 25 years old 	<ul style="list-style-type: none"> • Located in Angeles City 	<ul style="list-style-type: none"> • Socio-economic class: D, E (and minimal C) • Simple lifestyle, family-oriented • Drive to finish studies to help their families 	<ul style="list-style-type: none"> • Price sensitive; elastic demand • Aware of technology and social media
TARGET			
15-25 years old (senior) high school completers who are looking for affordable yet quality tertiary education within Angeles City			
POSITIONING			
<ul style="list-style-type: none"> • Institution of Hope • Affordable yet quality education • Patrimony 			

In order to showcase a clear, unique, and advantageous position in tertiary education market in Angeles City, CCA aspires to be an Institution of Hope where its clientele can get quality, responsive, and relevant tertiary education at a much affordable cost. To achieve its competitive advantage, CCA fosters four (4) important values, namely: excellence, stewardship, resiliency, and patrimony.

CCA Curricular Programs

As of the first semester, academic year 2019-2020, the following are the programs being offered at CCA:

1. Institute of Education, Arts, and Sciences

- Bachelor of Physical Education with Electives in Meetings, Incentives, Conventions, and Events
- Bachelor of Technical Vocational Education Major in Food and Service Management (with Technology and Livelihood Education Courses)
- Bachelor of Arts in English Language Studies with Literature and Professional Education Courses

- Bachelor of Performing Arts with MICE, Physical Education, and Professional Education Courses
- Bachelor of Science in Psychology with Professional Education Courses
- Bachelor of Science in Mathematics with Professional Education Courses
- Bachelor of Special Needs Education with Specialization in Elementary School Teaching

2. Institute of Business and Management

- Bachelor of Science in Accountancy
- Bachelor of Science in Accounting Information System
- Bachelor of Science in Accounting Technology
- Bachelor of Science in Entrepreneurship
- Bachelor of Science in Tourism Management

3. Institute of Computing Studies and Library Information System

- Associate in Computer Technology
- Bachelor of Science in Computer Science
- Bachelor of Science in Information Systems
- Bachelor of Library and Information Science

Level of Competition

To gauge the level of competition among higher education institutions in Angeles City, there is a need to obtain data on the total number of enrollees for each competitor. Table 4 reflects the average number of enrollees for each academic institution in the city.

**Table 4. Average Number of Enrollees in Angeles City for Academic Year
2014-2015 to 2016-2017**

Name of HEI	2014-2015	2015-2016	2016-2017
Angeles University Foundation	6,290	5,922	5,623
Holy Angel University	15,963	15,963	12,641
Republic Central Colleges	799	791	700
Systems Plus College Foundation	2,273	2,175	1,786
City College of Angeles	1,089	1,707	1,909
STI College	290	323	257
AMA Computer College	199	182	150
Jacson College	370	448	400
St. Thomas More College	-	-	299

Source: Commission on Higher Education Region III

Market Share

The market share shows the percentage of an industry or market's total sales that is earned by a specific company over a particular timeframe. Table 5 presents the market share of the HEIs located in Angeles City. The market leader is Holy Angel University with a share of 60%. This was followed by Angeles University Foundation with 27% share. City College of Angeles has a market share of 2% due to the fact that it only accepts students residing in Angeles City and due to its limitations in terms of capacity.

Table 5. HEIs Market Share

Name of HEI	2016-2017	Ave. Tuition and Related Fees (in peso) *	Total Revenue (in peso)	Share
Angeles University Foundation	5,623	38,000	213,674,000	27%
Holy Angel University	12,641	38,000	480,358,000	60%
Republic Central Colleges	700	32,286	22,600,200	3%
Systems Plus College Foundation	1,786	23,894	42,674,684	5%
City College of Angeles	1,909	7,712	14,722,208	2%
STI College	257	15,000	3,855,000	<1%
AMA Computer College	150	15,000	2,250,000	<1%
Jocson College	400	24,000	9,600,000	1%
St. Thomas More College	299	30,000	8,970,000	1%
TOTAL			798,704,092	100%

**Based on the fees provided by HEIs*

Sustainable Niche of CCA

The educational landscape of the Philippines is characterized by high market demand with clientele looking for quality yet affordable education. From the analysis, Figure 2 reflects the sustainable niche of CCA.

As an institution of hope, CCA is the only HEI in the city categorized as a local college. Higher education institutions classified as local colleges and universities (LCUs) are academic higher education institutions run by local government units (LGUs) in the Philippines. The sustainable niche of CCA lies on its unique characteristic, that is, an institution of hope catering the high (senior) school completers of Angeles City who wish to get quality tertiary education at a much affordable price and be employed right after they finish their respective degrees. Giving higher chance for the graduates to land a job, the curricular programs offered by CCA are the courses that are needed by the industry in Angeles City and Clark Freeport Zone.

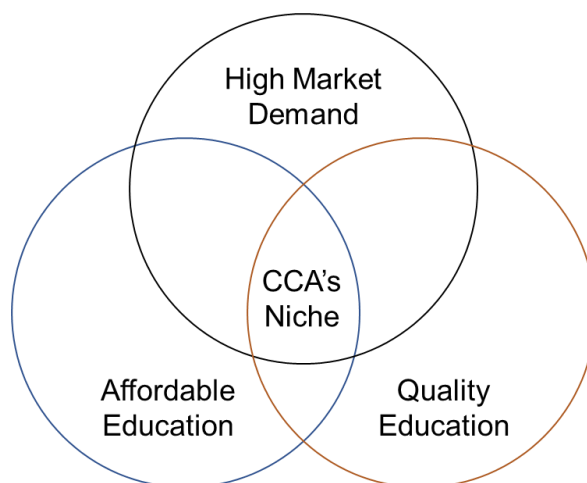


Figure 2. Sustainable Niche of CCA

Anchored in the mission of CCA of being an Institution of hope and a premier local college in the country, the formation of students is not only concentrated in providing relevant and responsive education but also by inculcating a deep sense of pride of Kapampangan culture. Thus, students are being honed to be a total human person as enshrined in the motto of CCA “*Totalis Humanae.*”

Economic Sustainability Analysis

The number of enrollees in CCA continues to increase from AY 2012-2013 to 2019-2020. As for the AY 2019-2020, the increase in the enrolment is due to the number of senior high school completers as seen in Table 6. The percentage increase for AY 2018-2019 to 2019-2020 (1st Semester) is 25%. This figure signifies that the expected enrolment trend in the coming AY will rise.

Table 6. Enrolment in CCA

Academic Year	1 st Sem	2 nd Sem
2012-2013	376	379
2013-2014	1258	1088
2014-2015	1549	1402
2015-2016	1719	1662
2016-2017	1910	1809
2017-2018	1800	1712
2018-2019	2136	1975
2019-2020	2662	2350*

*projected number of enrollees $(1975 - 1712) / 1712 = 15.36\%$

With the increasing number of students in CCA, additional teaching force is a must. Table 7 presents the number of teaching personnel (Plantilla and contract of service - COS). It can be observed that the number of teaching personnel increases over time.

Table 7. Number of Teaching Personnel (Plantilla & COS)

AY	1 st Sem			2 nd Sem		
	COS	Plantilla	Total	COS	Plantilla	Total
2012-2013	7	7	14	7	7	14
2013-2014	20	20	40	27	16	43
2014-2015	49	22	71	60	23	83
2015-2016	62	19	81	59	24	83
2016-2017	61	32	93	61	29	90
2017-2018	74	34	108	60	30	90
2018-2019	87	36	123	79	39	118
2019-2020	89	36	125	-	-	-

When the number of students rises, the number of non-teaching personnel (NTP) must also increase. Table 8 manifests the number of NTP (Plantilla and COS) from 2012 to 2019. It can be observed that the number of NTP is also in increasing trend.

Table 8. Number of Non-Teaching Personnel (Plantilla & COS)

ACADEMIC YEAR	JO/COS	PLANTILLA	TOTAL
2012	25	8	33
2013	32	16	48
2014	36	27	63
2015	34	26	60
2016	33	24	57
2017	33	25	58
2018	35	23	58
2019	43	28	71

Projections

In order to identify the number of manpower, the projected number of enrolees should be established. The succeeding tables (Tables 9 – Table 12) show the results of the linear regression tests conducted to estimate the different projections – number of teaching personnel (Plantilla and COS) and number of NTP (Plantilla and COS).

Table 9 depicts the results of the linear regression test where the number of teaching personnel (plantilla) is the dependent variable and the number of enrolees is the independent factor. It can be gleaned from the results that the number of teaching personnel (plantilla) is positively and significantly related to the number of enrolees ($\beta = .906, p = .002$). This result signifies that as the number of enrolees rises, the number of teaching personnel (plantilla) also increases.

Table 9. Projected Number Teaching Personnel (Plantilla)

Model	Unstandardized B Coefficients	Standardized Beta Coefficients	<i>p</i>	R-square
1 (Constant)	2.091			
Enrollees	.014	.906	.002	.821

Number of teaching personnel (Plantilla) is the dependent variable.

Based on the results of the linear regression test, the number of teaching personnel (plantilla) shall be computed using the formula:

$$\text{No. of Teaching Personnel (Plantilla)} = 2.091 + (.014 \times \text{No. of Enrolees})$$

Table 10 depicts the results of the linear regression test where the number of teaching personnel (COS) is the dependent variable and the number of enrolees is the independent factor. In can be gleaned from the results that the number of teaching personnel (COS) is positively and significantly related to the number of enrolees ($\beta = .934$, $p = .001$). This result signifies that as the number of enrolees rises, the number of teaching personnel (COS) also increases.

Table 10. Projected Number of Teaching Personnel (COS)

Model	Unstandardized B Coefficients	Standardized Beta Coefficients	<i>p</i>	R-square
1 (Constant)	-13.399			
Enrollees	.041	.934	.001	.873

Number of teaching personnel (COS) is the dependent variable.

Based on the results of the linear regression test, the number of teaching personnel (COS) shall be computed using the formula:

$$\text{No. of Teaching Personnel (COS)} = -13.399 + (.041 \times \text{No. of Enrolees})$$

Table 11 depicts the results of the linear regression test where number of NTP (Plantilla) is the dependent variable and the number of enrolees is the independent factor. It can be gleaned from the results that the number of NTP (Plantilla) is positively and significantly related to the number of enrolees ($\beta = .863$, $p = .006$). This result signifies that as the number of enrolees rises, the number of NTP (Plantilla) also increases.

Table 11. Projected Number of Non-Teaching Personnel (Plantilla)

Model	Unstandardized B Coefficients	Standardized Beta Coefficients	<i>p</i>	R-square
1 (Constant)	7.450			
Enrollees	.009	.863	.006	.745

Number of non-teaching personnel (Plantilla) is the dependent variable.

Based on the results of the linear regression test, the number of NTP (Plantilla) shall be computed using the formula:

$$\text{No. of NTP (Plantilla)} = 7.450 + (.009 \times \text{No. of Enrolees})$$

Table 12 depicts the results of the linear regression test where the number of NTP (COS) is the dependent variable and the number of enrollees is the independent factor. In can be gleaned from the results that the number of NTP (COS) is positively and significantly related to the number of enrollees ($\beta = .913, p = .002$). This result signifies that as the number of enrollees rises, the number of NTP (COS) also increases.

Table 12. Projected Number of Non-Teaching Personnel (COS)

Model	Unstandardized B Coefficients	Standardized Beta Coefficients	p	R-square
1 (Constant)	22.514			
Enrolees	.007	.913	.002	.833

Number of non-teaching personnel (COS) is the dependent variable.

Based on the results of the linear regression test, the number of NTP (COS) shall be computed using the formula:

$$\text{No. of NTP (COS)} = 22.514 + (.007 \times \text{No. of Enrolees})$$

From the different formulas derived from the results of the linear regression tests, Table 13 presents the projections of the number of students, teaching personnel (Plantilla and COS), and NTP (Plantilla and COS) for the next five (5) years.

Table 13. Projections for AY 2020-2021 to 2024-2025

AY	No. of Students	TP (COS)	TP (Plantilla)	NTP (COS)	NTP (Plantilla)
2012-2013	376	7	7	25	8
2013-2014	1258	20	20	32	16
2014-2015	1549	49	22	36	27
2015-2016	1719	62	19	34	26
2016-2017	1910	61	32	33	24
2017-2018	1800	74	34	33	25
2018-2019	2136	87	36	35	23
2019-2020	2662	89	36	43	28
2020-2021	*2800	**101	***41	****42	*****33
2021-2022	*3000	**110	***44	****44	*****34
2022-2023	*4000	**151	***58	****51	*****43
2023-2024	*4500	**171	***65	****54	*****48
2024-2025	*5000	**192	***72	****58	*****52

*projected number of enrollees

**projected number of teaching personnel (COS)

***projected number of teaching personnel (Plantilla)

****projected number of NTP (COS)

*****projected number of NTP (Plantilla)

If CCA will be having 5,000 enrollees for AY 2024-2025, the number of teaching personnel-Plantilla should be pegged at 72 while for teaching personnel-COS must be 192. On the other hand, the number of NTP-Plantilla should be 52 while the number of NTP-COS must be 58.

Table 14 manifests the annual budget of CCA from 2016 to 2019. In can be observed that only Personal Services increases in amount from 2016 to 2019 and this is due to salary standardization law. As for Maintenance and Other Expenses, there was one million increase from 2016 to 2017 and the amount remained unchanged from 2017 to 2018 despite the increased in the number of students in

CCA. With regard to Capital Outlay, the amount was the same from 2016 to 2018 and dipped to Php 4,500,000 in 2019.

Table 14. Annual Budget of CCA: 2016 - 2019

Items	2016*	2017*	2018*	2019*
Personal Services	28,027,061	33,203,134	36,029,447	37,920,633
Maintenance and Other Operating Expenses	23,375,490	24,375,490	24,375,490	27,203,390
Capital Outlay	6,827,800	6,827,800	6,827,800	4,500,000
Total Budget	58,230,351	64,406,424	67,232,737	69,623,923

**All amounts are in Php*

IV. Prospects and Challenges

Based on the results of the market study and economic sustainability analysis, the following were noted:

1. If the local government of Angeles City aims to increase the number of enrollees of CCA the following are recommended:
 - a. The number of employees (teaching and NTP) – plantilla and COS must be increased (see Table 13 for the projections).
 - b. There must be new infrastructure (e.g. academic building) for additional classrooms, laboratories, facilities, and the like.
 - c. An increase in the budget for CCA in order to cater greater number of students and sustain the overall operations of the institution (see Table 14 for the 2016 to 2019 approved budget for CCA) is needed.
2. There must be a continuous benchmarking in terms of salary of faculty members in the region. As the number of senior high school graduates continues to penetrate HEIs in the City, CCA must assure quality teaching force. With this, the College must recruit faculty members with appropriate degrees and graduate studies and offer them competitive salary packages/rates.
3. As the number of students increases, CCA must offer additional curricular programs that are responsive and relevant to the needs of the industry and the community.
4. Increase in the number of students must be equated with quality services. Therefore, CCA must continuously subject itself to various national and international accreditations to assure the community that the College is premier local college in the country.
5. Quality service also entails responsive and relevant training programs and seminars for teaching and non teaching personnel. Retooling employees is necessary for continuous delivery of quality service and education to the community.

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